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AN ADDRESS

AT THE

OPENING of THE SESSION OF 1847-8

OF THE

INDIANA MEDICAL COLLEGE,

BY *Box 3*

E. DEMING, M. D.,

PROFESSOR OF MATERIA MEDICA.

LA PORTE, INDIANA:

W. & J. MILLIKAN, PRINTERS:

1848.

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PUBLISHED BY THE CLASS.

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INDIANA MEDICAL COLLEGE, NOV. 29TH, 1847.

PROF. DEMING,

Dear Sir:

At a meeting of the Students of Indiana Medical College, convened at the Amphitheatre, Wednesday the 25th inst. Jesse Wasson in the Chair, H. S. Hahn, Secretary, it was unanimously resolved, that a committee of three be appointed, to solicit for publication a copy of your very interesting public address, introductory to your course of Lectures, delivered before the citizens of this place, and the students and alumni of the above institution. We, the committee, would add, that by complying with the above, you will not only reflect honor upon yourself and credit to the institution, but confer a great favor upon the Medical Public in general.

Yours Very Respectfully.

CHA'S A. THOMPSON, }
JOHN CUTLER, } *Committee.*
J. M. HAVENS, }

LAPORTE, 30 Nov. 1847.

MESSRS. THOMPSON, CUTLER AND HAVENS,

Gents:

YOUR letter of the 29th inst., requesting in behalf of the class, a copy of my introductory lecture, is before me. If the class think its publication of service to the cause of Medical education in this region, the manuscript is herewith tendered them.

E. DEMING, M. D.,

*Prof. Mater. Med. and Therapeutics,
Indiana Medical College.*

MESSRS. THOMPSON, &C.

ADDRESS.

Within a few past years, two individuals, under very different circumstances, have given utterance to some of the most comprehensive and lofty conceptions of the human mind. The one had a highly cultivated intellect, thoroughly furnished with the richest stores of classic antiquity. He said "ideas were crystalized thoughts." The other was a printer's boy, on whose mind the light of science had scarcely shed its feeblest rays, and to whom the great fountains of knowledge were just beginning to be unsealed. In his daily avocation behind the press, in answer to the question of a bystander, he declared, "thoughts make tracks." Combine both together, and in an intellectual sense, we have presented before us, a vast element of power. That ideas are crystalized thoughts, and that these thoughts make tracks, reveal the sovereignty and controlling power of mind, in all and every thing that relates to human progress, or the advancement and well-being of man. Much is continually spoken and written about the progress of the present age, and many suppose that the masses have now a clearer perception of the true and beautiful, both in nature and art, than heretofore. I am not disposed to enter into an examination of this matter now, being willing that all should have the most favorable views of the onward march of knowledge and true science, and anxiously desirous that they should rise to universal and undisputed empire.

What I wish to insist on at this time is, the necessity of creating and sustaining a higher standard of sound medical education, and if what I may offer for your consideration shall not appear to you in the luminous and beautiful forms of crystalization, I do hope that the truths conveyed in the thoughts offered, may at least make tracks; leave some traces of indelible impression, some enduring reality, something of permanent and lasting usefulness. No subject, in its nature, is so difficult to bring clearly to popular apprehension as that of medicine and its adjunct or collateral sciences. Man himself is a living, moving, organized mystery. Whatever we see of his relation to objects that are immediately around him in the material universe, we find that there are influences constantly operating to produce changes of those relations, A large portion

of these influences are hidden in the secret and invisible regions of causation. Their effects are manifest in disease in all its protean forms, from the slow organic and constitutional derangements gradually removing the pins that hold the "earthly house" together, to those fatal epidemics whose track is marked by the sweep of the destroying angel's wing.

The complex formation and arrangements of the human machine, all tend to confirm the feeling of mysteriousness, as well as the secret effects of remedies and influences on the frame in disease. Life, in its essential elements with connecting particulars as manifest in the motions of the lungs, heart, and great blood-vessels—in the nervous system—the fluids, in fine, the aggregate of every thing that constitutes man as he is—all belong to the great system of Nature's arcana; which can only be understood or explained after years of patient research, toil, and calm and persevering investigation.

If this faint outline of the mystery of man's organization, liability to change and disease be true, a fact which every passing day presents to our observation, it certainly must require a high standard of medical education to successfully counteract all the various and combined influences operating in disease.

The first requisite in a sound medical education is a thorough knowledge of the human structure, as it appears both in health and disease. This can only be obtained by a careful examination and inspection of all the separate organs that collectively make up the human frame. A knowledge of their arrangement—the relations and contiguity of parts, can only be revealed by the anatomist. The form divine of man was said by the ancients to be the highest and most perfect form in the universe, inasmuch as man, being a microcosm, constituted a little world within himself. A profound knowledge of anatomical structure is of the most important use, from the great fact that it not only reveals quality, but develops function. This position need not be enforced by argument. We all feel and see its truth. If we but look at the mechanism of the heart and lungs, we see at once their function and adaptation to their specific uses. The same may be said of all the other organs. This doctrine of forms is not only applicable to man, but if carefully examined, will extend to every being that lives and moves in the universe; reaching up to the highest intellectual forms in the world of light, and descending down through infinite gradations,

even to the "puny nations that tinge with purple the surface of a plum."

These organic forms are endowed with appetencies, which indicate, in an especial manner, the necessities of the system. Nutritional substances are by them assumed. These pass through "various modifications in digestion and assimilation, and are ultimately applied as constituent vital molecules of the system. By this vital process, health and comfort and vigor are dispensed to the animated system, whilst effete molecules are eliminated by the emunctories as useless, if not injurious. This play of affinities by the material organic forms united in man, producing catenations, unities and harmonies of action in the entire frame, displays many important and familiar phenomena under the controlling powers of the vital forces." The controlling power of all these forms, is through "that refined tissue" denominated nervous. It is more slowly evolved, and is of a more attenuated fabric, and affords to the "conservative organs a more perfect ability of functional exercise. Above all else, however difficult to our comprehension, this is the media of the manifestation, if not the residence of intellect.

When all these organs and sympathies are in "easy play, and are free and buoyant," health is the result. This is the physiological state of man.

After all, these combinations that so much administer to our well being, when practiced indiscreetly, in excess, or even in extreme deficiency, as well as "the atmospheric circumfusa by which we are surrounded," all serve to disturb this natural harmony. Thus the connections of all the harmonious associations of these organic forms in the human body may be broken. A "perturbed state of organic action, with inquietude, distress and wasting," may follow at any period of life. The relations of intellect, as well as of the organic harmonies, are severed, and man may then be viewed as "the sport of contending impulses and chemical contingencies," and under an enervated influence of the vital energies, he falters, suffers distress, and sinks. This constitutes the Pathological state of man.

One of the master minds of our profession says: in our researches into the diseased condition of the human system, we need to have particular reference to the healthy state, as it will undoubtedly be discovered, that the morbid phenomena are the natural results of the system, under excessive stimuli. From these considerations, it is evident that all our studies, investigations, and researches,

must at last centre in the pathological condition. Our efforts are to be directed to remove or mitigate disease. And these efforts are to influence the most complex organism of creative power.— Can so great a work be trusted with safety in the hands of individuals who have little general scientific knowledge, and less specific medical acquirement? How does it happen that on subjects so vastly important, and at those points where so many hopes and fears centre as do gather around the sick bed, we are comparatively indifferent to the qualifications of those who profess or make pretensions to, the healing art?

That a higher standard of medical education is indispensable, I argue, not merely from the difficulties connected with the science of life, which have been briefly touched upon, for no one that looks with a calm eye and a benevolent heart on the sufferings of humanity, but at once feels that those individuals who are entrusted with the weighty responsibilities of warding off or expelling a most powerful and subtle foe from the citadel of human life should be furnished at all points with the most effective armor.— Of this scientific medicine has a large and abundant supply, of the recorded experience of centuries. To all and every thing connected with the healing art calculated to advance it—to exalt it into certainty, the best and most talented minds in past ages and at the present hour, have been and now are devoted.

Are we prepared to heedlessly pass by all this and follow the dreamy pretensions of modern quakery? Again, high medical attainments in those who practice the healing art, give confidence and stability to society in times of great calamity and distress.— Sydenham, in those desolating diseases of his own time, which he has sketched with such a graphic hand, was felt to be a tower of strength; and the thousands he soothed, relieved, and saved from the devouring pestilence by his skill, fidelity, and firmness, will never be known, until the secrets of Heaven's register shall be revealed.

In our own country, and near our own time, there is a name whose memory is as grateful as incense, for the recollection of his more than martyr devotion to suffering humanity. When the pale horse and his rider moved in triumph through the streets and avenues of the city of Penn, who first stayed his fearful tread? It was Rush.

But Sydenham and Rush were trained, scientific physicians—they possessed high, clear, and discriminating minds, and whole communities rested with confidence upon them.

A high standard of medical education is required in order to meet the wants of society in the north west especially. Every epoch of human history has been marked with either new or singularly modified forms of disease. This has been particularly true of all the great migratory movements of our race in past ages. The irruptions of the northern hordes into the regions of civilization, carried with them new and peculiar diseases into Italy and the Eternal city, and in later times the return of the crusaders from the holy wars brought scarlatina into Europe. The great tide of immigration now setting into the north west of our country demands that medical men be furnished with adequate means to meet any emergency that may arise from this source, as well as from the whole class of diseases endemic to the country in which we reside.

The importance of high attainments in the latter respect cannot be too strongly pressed upon our consideration. The tide of population that is continually rolling along the valley of the Mississippi and spreading out on the borders of our great lakes, settling on the verges or in the bosoms of our wide extended prairies, will call for skill and knowledge in the treatment of its peculiar diseases. All the various circumstances which are connected with the production and diffusion of exhalations from the soil, will require the attention of the practitioner of medicine, more especially in our malarious regions of country.

Again, we all know that no circumstances tend more to increase the sources of endemic influences than high ranges of temperature and calm states of the air. The effects of these will of course greatly vary with the quantity of humidity exhaled, and with the "conditions of the air in respect to horizontal and vertical currents of electricity. The sources of malaria may be ever so productive, the evaporation from them may be ever so rapid—they will do but little harm if the atmosphere passing over their surfaces is quickly renewed." It is indirectly owing to temperature, and the greater capacity it gives the air for moisture that the marshes and boggy places of temperate climates are frequently so unhealthy.

High temperature and humidity, together with richness of soil, generate succulent plants, which contain saccharine and oleaginous principles, and carbonaceous and hydrogeous elements, with a portion of azote, and which rapidly pass either altogether or partially through the alternate process of growth and decay. It

is ascertained during the moist states of a warm atmosphere, that the *equilibrium* of its electrical conditions are disturbed—the relative electrical states of this fluid and the body considerably modified and the changes produced by the blood in the lungs somewhat retarded.” I will here offer an additional remark, and that is, that the amount of carbon eliminated by the lungs and skin is materially lessened where the atmosphere is characterized by a high dew point—and if the liver does not perform a vicarious office, “the vital fluid will be too much surcharged with this element for the healthy performance of its different functions.” I suppose, generally, in this region, that the dew point is far below that of the atmosphere. Dr. Forry has said we should remember that the baleful sirocco is nothing but an atmosphere possessing a high dew point. The effects of this peculiar condition, which I have briefly referred to, have in some past seasons been deeply felt in our alluvial and prairie regions, and they will, sooner or later, invade all our firesides. This audience, therefore, will not think the speaker fastidious, or disposed to dwell on small and comparatively indifferent points, if he urges as a motive to high medical attainment, our personal situation, locality, and surrounding circumstances. If these views are correct, and for their truth he appeals to the recorded facts of medical history, it is then all the better that we bring the issue home, and as a whole community, unite our efforts in promoting a high standard of medical education and literature. I shall not dwell particularly on pathological conditions before this assembly—by a sound medical education, we comprehend surgery, chemistry, obstetrics, as well as those branches to which we have more specially referred. They are all the great constituent elements of our science. If anatomy and chemistry are the principal pillars of our edifice, the others constitute the superstructure. United and cemented harmoniously together, they constitute our temple of life. While we feel that the building is not completed, we rejoice that we are permitted to be collaborators in its accomplishment, and thus are now associated with some of the most benevolent and highly gifted men of the present age, as well as brought into a near companionship and communion of thought and feeling with a great company of honored dead.—If our educational standard is high—if the medical mind of the country is well and thoroughly trained, its literature will be pure and elevated.

This is what is demanded by the wants of the present age.—

There has been no time since Paracelsus, when there was more necessity for solid alimant. The medical mind has of late been directed in the channels of small rivulets instead of moving out into the broad and widening streams. Much time has been consumed in the study of synopses, abridgments, abstracts, and the like. Another evil is the tract knowledge, containing cheap medical literature, if it may be called by that name. They give a delineation of some few prominent symptoms of diseases, and then the receipt for their cure. Very nearly allied to this class is the whole arrangement of the more voluminous works known as domestic medicines, which fill almost every pedlar's wagon, and which lie upon the shelf in every cabin. Was our professional literature of a sufficiently elevated standard, all this trash would soon be consigned to the moles and the bats.

We need a high standard of medical literature and education from the fact of our locality and the peculiar circumstances that surround us. We occupy a central position in the great battle field of quackery. Whatever may be its general influences on society at large, throughout our Union, the valley of the Mississippi is at present its great harvest field where it annually reaps golden sheaves from its nostrums, in the cure-all forms of pills and plasters, tinctures and golden drops.

The reason why this field is so inviting to empiricism and ignorance, arises, perhaps, in some respects, from the multifarious nature and peculiar phases of our population, taken together with their love of migration and change, but more especially from the fact that by far the largest class of our diseases throughout this immense region are periodic and paroxysmal. Hence, if a traveller from Europe should visit us, from the signs that he would see all around him, he would feel certain that quack medicines were indigenous productions of our prolific soil. This sentiment would be confirmed by visiting our apothecary shops, which every where groan with the weight of the elixirs of life, and those two great salvos, the lithontriptic and sanative mixtures. And if farther proof were needed, our newspapers would furnish ample materials, copiously backed by the reverend clergy. If our medical literature was of the right kind—if society would demand high attainments and solid acquisition; these things would soon be numbered with the illusions of the past.

That we should strive to cultivate a high standard of medical literature, especially in the north west, I argue from the fact that two institutions, dignified with the names of Eclectic and Botan-

ical colleges are now organizing classes for medical instruction, and presenting false issues before the community in respect to the necessary professional attainments and qualifications.

What are these? The primary one of the eclectic school is the rejection of mercury with its compounds, and the exclusion of the mineral preparations from *Materia Medica*, and the manipulations of Pharmacy. Divest this principle of the clothing and drapery which those interested have thrown over it, and it is like an announcement to the world that the loss of the right arm detracts nothing from the strength of the individual man. It simply makes known under the guise of science and a sham medical philosophy, that the potential remedies of the pharmacopœia which have for long years been investigated by astute and penetrating minds—which have been sanctioned and corroborated by various and universal experience—that have stood all this and the tests of the analytic and dissolving fires of chymistry, are valueless. That the essence of life is found only in vegetable medicines, and that in their natural state, untouched by the chemist's hand.— If we reject the mineral salts from the class of remedial agents, and rely exclusively and universally on vegetable preparations alone, however specious in appearance, we have but a feeble barrier against the invasion of a large number of our desolating epidemics.

The Botanic college is unquestionably the mother of the Eclectic, at least so far as originality of idea and conception is concerned, though more definitely adhering to its original faith in steam and pepper. Neither of these medical sects have yet produced a respectable work on any branch of our profession, and notwithstanding all their boasting, we have yet to catch the first glimmering of light from their own orbs.

Their light is borrowed from authentic and classical medicine. In proof of this, I refer you to their programme of studies and books, and directions for students. If nothing new is taught—if their master minds have presented no new discoveries—put forth no standard works on any branch—if in addition to this they have cut off the potential remedies of the entire mineral kingdom, of what value are their instructions? Have we any evidence that they know more of medical botany than Barton, Wildenow, or the accomplished Griffith. If not, all their pretensions go for nothing, all their giants are but men of straw.

A high standard of medical education qualifies, in an especial

manner, for the exploration into the causes of diseases, as well as the adaptation of remedies to counteract their influence on the living system. None but bold navigators ever push out into an unknown ocean, and let their "plummets down into its resounding depths." Those who confine their barks near the inlets of ancient shores, "never discover new and populous islands." It is so with scientific and professional mariners—they must qualify themselves to sail out of the beaten track in order to make new discoveries to benefit the race. Medical men must have lofty and comprehensive views, as well as the faculty of profound observation, or persistent and philosophic research. They must have the power to collate, and arrange, and classify facts in all their bearings, and in every aspect, as they are presented in the various and ever changing forms of disease.

This is illustrated by the exhibitions of individual character, together with their scientific claims—their real utilitarian knowledge in the application of remedial agents in the healing of diseases.

I will make selection of an individual who claims the discovery of a new system, and who proposes to revolutionize the whole science. Proceeding on the assumption that remedies that in health induce the chain of morbid symptoms that constitute disease, are the true specifics for human ailments, he has presented a Pharmacopœia of infinitesimal therapeutic agents to resist the varied forms of disease from febrile ephemera to the small pox, from the mild tertian intermittent, to the desolating jungle fever of India. The practical utility of the system has been tried on a large and liberal scale, with the needful facilities, and results have proved the system to be in all respects one of those splendid fallacies of an ingenious fanatical mind. The strength of its claims to public confidence can only be in its boldness and novelty, and so far from presenting any barrier to the onward march of active disease its only exhibition has been the feebleness of the spider's web. Its vaunted cures and prophylactic powers have served, when of any use at all, to amuse the patient by the potency of its globules, while nature has performed the cure. It may answer among the fashionably nervous of artificial society, but can be of no avail when violent disease lays its strong hand on frail humanity. In that dread hour, homœopathy has been found only another name for powerlessness.

Contrast this with the discovery of another individual, the mention of whose name is like the lifting up of a shield of defence,

not for an individual, a neighborhood, or a nation, but for all our race. Cast your eyes across the Atlantic, and you will see on the shores of England, a man standing calm and unmoved in the midst of a destroying pestilence. While gloom settles on every habitation, and dismay and terror pales every countenance, you will see him pursuing his investigations with the strong, serene confidence of a searcher after truth. No difficulty is too great for him to master—no trials too severe for his endurance—no opposition so strong but it is surmounted by the energies of his mind. The result of his investigations, of his patient and continued research is victory—not a momentary, but an enduring triumph—a triumph that will remain so long as disease is the appointed inheritance of man. In real utility and usefulness, how vast the difference between Hahneman and Jenner. The one, like a feeble spring, whose streams are soon absorbed and lost.—The other, like the welling waters breaking from the mountain side, spreading far and wide their refined and purifying influences.

The cultivation of sound medical literature marks, in an eminent degree, a nation's advancement in social refinement and civilization. In barbarous countries and among pagan nations, medicine consists mostly of incantations and certain superstitious forms and ceremonies. As the light of science opens the understanding, and as social progress advances, the healing art advances with it. It was so in Greece and Rome. The same fact marks the medical history of England, France, and Germany.

In the attainment of a high standard of medical education, and sound medical literature, above all others, important responsibilities rest on the American students of medicine.

The circumstances of our country, and the genius of our institutions, give to American mind extraordinary facilities for improvement. Our system of common schools, and other means of intellectual and moral elevation, afford ample means for laying early and solid foundations for the acquisition of elementary knowledge, preparatory to professional study. To the medical student, the extent and variety of climate and soil, temperature and botanical production, together with diseases of the different portions of the country, an almost boundless field is opened, and if he enters it with proper training, with the determination to make all these means subservient to the attainment of truth, and facts relative to his profession—if he but make his mind the great store house, well filled, and arranged, and classified in order, he will be enabled to go forth in the consciousness of possessing

such qualifications as will enable him to administer relief to human suffering.

To perfect these means, and render them available as remedial agents, well regulated medical colleges are indispensable, and without consuming time in the argument, I assume it as an important fact, that their location should have some relation to the peculiar diseases of the district surrounding them. With this view, it seems to me important that the north west should sustain its own institutions. What great good or superior advantage does a student gain by attending medical courses east? Let us for a moment examine. Is man differently constituted there?—No, say you, he is every where the same. Well, then, the knife can here reveal the same brain, heart, lungs, stomach, liver, viscera, nerves, bloodvessels, and the like. If the human structure is the same here, then here is the place to study it. Are not the laws of chemistry the same here as there? While natural "philosophy teaches the action of bodies one upon another as wholes, chemistry goes into particulars," and shows how these bodies act upon one another by particles, and in that manner covers the whole ground. Is the book of nature any larger there than here? Is the action of therapeutical agents in the pathological condition different there from this region? Do they know any more of the action of antimony, mercury, iodine, and quina, than we do? If not, then sustain our own institutions. Cannot the great operations of surgery be as well performed and demonstrated here as there? Are not the operations of amputation, lithotomy, tying an artery, the same here as at the east? Is not every thing relating to obstetric medicine as well understood here as there? Are not the means of instruction as ample?

In the history and treatment of disease, there is no essential deficiency. The great lights of the past shine as brilliant here as in trans montane regions. The general causes of the alteration of structure and derangement of function are as clearly understood. In addition to all this, the advantage of attending to the specific history and treatment of western diseases is of great importance. These are as clearly defined—their pathological condition is better understood—the remedial agents, with their qualities and doses as adapted to the abnormal state—their special adaptation to diseased functions has with us been more clearly delineated. All this has been attained by observation and experience. If it were necessary to prove these assertions, I have only to refer you to hospital cliniques and individual reports of cases of prolonged

disease, more especially in their obscure intermittent forms, that we should expect to remove in a few days, by the same remedies. I know that our views are met by the statement that we lack hospital cliniques, for illustration. The importance of this matter and its value to students previous to graduation, is greatly overrated. With many young men, clinical notes have been substituted for laborious study, and in our large hospitals, except in peculiar and anomalous cases of disease, the clinical remarks are in general hurried and indefinite on those ordinary cases that occur in general and common practice, all of which should constitute the essentials of a student's knowledge. The advantages of clinical instruction are much more useful after two courses of lectures, when the student will be furnished with means for rendering it more available by previously having his mind stored with accurate knowledge. The same remark holds good in other departments of our profession, that the occasional displays of the surgical clinique are substituted for close attention to the laborious demonstrations of the dissecting room. I do not, by any means, object to public clinics, but they should not have an undue weight on the student in influencing his mind in his elementary course.— I speak with more confidence, as these views are sustained by opinions expressed in the report of the national medical convention, assembled in Philadelphia in May, 1846.

After referring to the protracted course of study in continental institutions, mentioning the subjects that are distributed through successive years, they observe that "clinical instruction, both in medicine and surgery, is reserved for the last year or two, after the student has made such advances in his primary studies as will enable him perfectly to understand the lessons which are taught him at the bedside of the patient." The terms of lectures in France, and Austria, are a fraction more than four years, so we discover that clinical instruction is not enforced until the elementary studies are thoroughly understood.

Again, the committee observe that "the hospitals and poor houses found in so many of our towns and cities, will furnish, from time to time, cases of every description, while the pauper practice of the country will prove no indifferent means of imparting clinical instruction."

"Instructions gained from these sources in free and familiar conversation with the preceptor will perhaps be of more avail than any other, for the large number of students who occasionally through the wards of hospitals, render it impossible for each one to

obtain a correct knowledge of all the cases presented to him."

If these observations be founded in truth, we see at once the plea of the necessity of medical colleges being founded in large cities exclusively, is overthrown. It seems that quiet retirement tranquillity, freedom from interruption and every thing that can call off the attention, is as important to the medical student, and equally applicable to medical colleges, as merely literary, while their location is at such points as shall give them sufficient material. If the argument for going east to obtain a medical education is valid for one, it is for all, and consequently no institution can be built up in the west.

The western student should strive to cultivate a high standard of medical literature, inasmuch as "character begets character." The impressions of mind do not easily wear out. The thoughts and ideas of antiquity live in all succeeding generations. Facts and principles are enduring, and the truths promulgated by men of the past age live in this. Harvey, Cullen, Sydenham, and others, are still alive in their successors. Embodied thought cannot be monopolized—it will expand with the progress of the age, and like the sun in the firmament, send out its heat and light. Our duty is to keep pace with the increase of medical knowledge—to ascertain every new fact, and to make known every thing calculated to perfect the healing art and relieve the sufferings of our race. We trust the instruction in the several departments of this college with all the influences that will go out from it will be of utility to the present and future generations, instead of being dissipated by time, will move in a "deeper channel, and with a stronger current," as it descends the track of ages.

The first section of all the great scientific works
 is the introduction, which is the key to the whole
 of the work. It is the part which the reader
 must read first, and which will give him
 a general idea of the subject, and of the
 author's views on it. It is the part which
 the author writes last, and which he
 writes with the greatest care and
 attention. It is the part which the
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