ADDRESS

DELIVERED BY

DR. T. B. HARVEY,

PRESIDENT OF THE INDIANA STATE MEDICAL ASSOCIATION,

AT ITS ANNUAL MEETING,

May 17th, 1881.

INDIANAPOLIS:
CARLON & HOLLENBECK, PRINTERS.
1881.

THE ADVANCE IN MEDICINE.

Medicine, in all ages, has been influenced by its surroundings. Its growth is dependent on general intelligence and the progress in collateral sciences. Practical medicine has always been an interesting theme, alike to those suffering and those administering relief. The changes and improvements which have occurred in it within our own observation, and the causes leading to them, constitute a worthy subject of thought. This period includes about the time of the existence of this society; it has been observed by the majority of its members, and certainly includes the era in which the greatest changes and improvements have been made.

Justice to the science, the profession, and the public, calls for substantial reasons for any great or radical change in the healing art. To those disposed to criticise such investigation, we may say that the true interests of medicine have never suffered by acknowledging errors and seeking to amend them, as by so doing we give assurance of an honest desire to find the truth. There may yet be some in our ranks who are unwilling to admit that any material change has taken place, and others who admit the change, but can not see the improvement and long for the return of the "lost art." To such—or rather to their patients—we may extend our sympathy.

The minutes of the first meeting of this society, thirty-one years ago, show that it adjourned to meet at "early candle-lighting" to hear the address of the President. In calling your attention to this minute my object is to vindicate our fathers in medicine, rather than to arraign them for condemnation or adverse comment in what may follow.

Of those who constitute the connecting link between the past and the present we recall the memory of many who were distinguished, and while they had not the advantages of gas-light, the microscope, laryngoscope, opthalmascope and thermometer, but worked in the dim "candle-light" of medicine, they were more thorough in the cultivation of what was known.

SURGEON GEN'L'S OFFICE
373

In reviewing the theories and practice of the past we should endeavor to glean the truth and eliminate that which is erroneous. The superiority of to-day is attained only through improved methods of investigation and application of results. It has scarcely been thirty years since much more confidence was entertained in depressing remedies than at present. The liver was too often regarded as at fault, and the term "bilious" disguised a want of pathological information, and was in as frequent use as the answer of a venerable physician, who replied to anxious or meddlesome inquirers on doubtful points, that it was "owing to the nature of the case," which answer secured for him the reputation of being a learned and accurate observer.

Venesection, mercurials and antimony were the principal remedies in the treatment of phlegmasia and fevers. "We were bled when sick, and in accordance with the theory that prevention is better than cure, frequently bled to prevent sickness." Bleeding was practiced to prepare the system for mercurials and develope the nature of the disease. Alteratives and cathartics, to correct or arouse the secretions, were regarded as essential, while the experience of the present day proves that, in general, they are not only useless but mischievous in their effects, no matter how beautiful and philosophical the theory sounds.

Does this appear to be an overdrawn picture of medicine in the past? The text books and practice of that time support it.

There once lived in this city a doctor so sanguinary in his treatment that he had a trough constructed to carry the blood of numerous patients from his office. This method not giving satisfaction he became a homœopathist, and accepted in full faith the theory of potencies. His patients still dying, he turned Thompsonian and after fruitless efforts to steam out disease, renounced medicine. Is it marvelous that men, who look upon disease as having an independent existence, should pass from one extreme to another? The practice of thirty years ago was based on what was regarded as a correct knowledge of pathology, and the therapeutic properties and powers of certain medicines and measures.

It was claimed that great improvements in physiology, pathology and therapeutics had been made over the "divinity" of the system of Hippocrates, the "Archeus" of Paracelsus, the good and evil spirits of Stahl and Hoffman.

The spirits had materialized and though disease was still re-

garded as an entity, it had taken on the form of plethora, determination of blood, excess of fibrine, increased plasticity and arterial predisposition, and inflammation was universally considered as a sthenic form of disease.

The opinions of a few impractical men of learning and renown were given undue weight and hence retarded progress. Had their labors not been governed so much by hypothesis, empiricism and disputation, their great ability would have led to the development of richer trophies in medicine, and we can but lament that often their memories furnish little more than monuments of wasted talent. Medical books, journals and societies were comparatively few and in the societies there was lacking that independent expression of honest conviction which characterizes the medical society of to-day. Theory, unsustained by anything save the authority from which it emanated ruled the medical world. Facts were made to bend to theories; efforts to establish principles by observed truths were denounced, and thus false theories and worse practices were perpetuated. Respect for authority and fear of professional alienation smothered the feeble flickering rays of light as did the Inquisition of the dark ages.

Under these circumstances why wonder at the expression of Mulier that "as his constitution was not strong enough to withstand both disease and doctors, he would dispense with the latter," or the saying of Themison that "the study of medicine is a meditation on death"?

Medicine was allopathic in every sense of the word, the specific action of mercury was to establish a mercurial disease, and well do we remember our teachings and observation as to the character of the mercurial pulse. Blood-letting established anemia to counteract plethora, sthenia or hyperemia.

Cullen, Rush, Eberle, Dewees and Wood stand in our midst and properly ask why this change and whence the authority? We may answer that it is not so much from what we have learned as new facts, as that we have learned to unlearn old errors. Instead of looking upon disease as an entity, and that for each variety there is a specific, we have learned that disease is simply a departure from health, an abnormal condition of the organs, a perversion of physiological laws or actions depending on some anomalous or specific cause. We have studied its natural history, and found that often it is self-limited; therefore, instead of attempting to forcibly drive

it from the body, we now try to clear the path of all complications and aid nature to restore health. But we are told that John Hunter, the great physiologist, and Bichat, the great pathological anatomist, taught these doctrines over a hundred years ago. We admit it, but the honor of putting them into practice, was left to our day.

We know there is a "vis medicatrix naturæ." Celsus hinted at this, and adopted treatment accordingly, and Cullen taught it, but only for the purpose of completing a theory in regard to fever without making any practical application of it.

The medical mood of to-day does not respect authority unless sustained by demonstrative proof. It rejects dogmas from within as well as heresies without. As has been said, we "have arrived at that stage which forces its students to that most valuable position, a knowledge of when a thing is proved and when it is not proved. A position which sustains real medicine and is a deadly enemy to quackery." A position which was recognized by John Hunter, who in a letter to his pupil, Edward Jenner, wrote—"I think your solution is just, but why think; why not try the experiment?"

Progressive medicine accepts inductive philosophy only so far as it is sustained by practical deduction. It consists in the union of theory and empiricism. We have learned to appreciate the golden rule of Chomel: "It is only the second law in therapeutics to do good," the first being "not to do harm."

We adopt the statement of Sir Humphry Davy. "Hypothesis should be considered merely as an intellectual instrument of discovery, which may, at any time, be relinquished for a better instrument. It should never be spoken of as a truth; its highest praise is versimilitude. Knowledge can only be acquired by the senses; nature has no archetype in the imagination; her empire is given only to industry and action, guided and governed by experience."

Granted that the above statements are true, what has produced the change? Attempts have been made to explain it in different ways.

First, by a change in the tpye of disease, since the first appearance of cholera, in 1833, from a sthenic to an asthenic form or rather an asthenic condition of the system, by which the destructive tendency of remedies is not tolerated as in former years.

This view has not been generally accepted, but Allison, Chris-

toson, Stokes and Sir Thomas Watson were advocates of it; although Watson duly acknowledged the error and said publicly, that he had been governed more by respect for his learned predecessor Dr. Allison, than by his own observations. Allison went so far as to state that the change in disease forms a "part of the general dispensation of Providence, and is, as far as is yet known, an ultimate fact in its history."

These venerable medical men drew upon their memories, merely, to prove the change from the sthenic to the asthenic by contrasting "the soft and compressible pulse of inflammation," at that time, with the frequent, hard, full, firm and sharp pulse, *"and vehement action of the heart, the vivid redness of the venous blood and the force with which it spouted, almost per saltum, from the orifice in the vein," in their earlier days, in the pneumonia of Cullen and Gregory.

Prof. Balfour unearthed in the medical libraries of London and Edinburgh, the MSS. notes of clinical cases by Cullen and Gregory, and found that their histories of cases were "precisely similar to what we have now days" and presenting the same type. Dr. Gregory "lays it down as a rule, that in pneumonia the pulse is remarkably soft though the febrile symptoms run high" and that, "in the beginning, before the patient is blooded, the pulse is not only soft but small and commonly upon the patient being blooded, it becomes fuller, though it always retains its softness."

Balfour, in 1847, about the beginning of the change in practice, says: "When for the first time, in the ears of a British medical audience, I brought forward an ample supply of facts to prove that inflammation generally, and particularly pneumonia, did not require for their successful treatment the use of any of these so called heroic remedies, especially blood-letting, which were then so lavishly employed, I was placed in the position of St. Paul when brought before Nero, 'no man stood with me.'"

At first "even J. Hughes Bennett joined in condemning the system Dr. John Forbes and others sought to introduce, but two years afterward, on investigation, he became one of the leading defenders of the restorative treatment of pneumonia," and has since always claimed the great change to be due to improved diagnosis and advanced pathology, and by careful experiments he has shown that

*Prof. Balfour, "London Lancet."

mercurials have no cholagogue effect, often diminishing the amount of bile excreted.

Second: It has been claimed that homœopathy has done for medicine what the sympathetic powder of Sir Kenelm Digby did for surgery, and for a short time, in the history of medicine, there was a pause in theory and practice as it was necessary to admit either the virtue of potencies, or the fact that nature alone and unaided except by hygienic measures, was able to eradicate disease.

In this dilemma the skepticism of Scoda and Dietl came to the rescue by showing that "hay-tea and colored water fully equalled the most skillfully prepared infinitesimals." Holmes' "Homœopathy and Kindred Delusions" says: "It has taught us a lesson of the healing faculty of nature which was needed and for which many of us have made proper acknowledgments; but it probably does more harm than good to medical science at present, by keeping up the delusion of treating everything by specifics; the old barbarous notion that sick people should feed on poisons." Edward H. Clark, M. D., says: "The speculative tendency to which we have referred found its most extravagant expression and attained its largest development in the theory which Hahnemann framed near the beginning of the present century. Although on account of its manifest absurdities it was rejected by all scientific men, yet, to the philosophic student of the history of medicine for the past hundred years, it is interesting not only as a curious instance of the aberration of the human intellect, but because, without contributing at all to the progress of medical science, it has modified the therapeutics of the present age, by reminding the physician of the limits of his art, and the great part which nature plays in the cure of disease. Hahnemann ignored all previous medical knowledge, denied that medicine was a branch of natural science, that any knowledge of anatomy or physiology or pathological anatomy, diagnosis, or the investigation of the nature of disease was necessary to the physician and also denied the existence of any curative power in the human system." As well might it be said, that Franklin was led to contemplate the phenomena of lightning, and establish its identity with electricity by observing the light of the fire-fly, or the uncertain and deceptive "will-o'-the-wisp," as that medicine could be improved in the least by observing this latest type of superstition and imagination. But if it be true, then never before so great illumination from such infinitessimal sources.

A third explanation is, that medicine, like the ladies' bonnet, has from its earliest history been subject to change from one extreme to another, and that venesection has been in and out of fashion frequently. The opinion prevails in many quarters that in time physicians will tire of seeing their patients die with their "skins full of whisky and opium,"* and again have resort to the antiphlogistic treatment of the past. In regard to the probability of a return to the heroic and depressing treatment, we admit that there is a possibility of a destruction of all civilization—not perhaps by northern barbarians, so much as by internal conflict with nihilism or other disturbing elements in the social system, but until something of this kind shall result, we may feel secure that instead of a retrograde movement, all change may be expected in the way of progress.

Rather than any of the explanations given, are we not justified in entertaining the view, that the change is entirely due to the indefatigable industry and patient research going on in our own borders, aided by the progressive tendency of the age; general education of the people; liberality of thought and action, and enfranchisement of mind from superstition and deference to experience and authority?

In these days of gas and electric light, science does not advance by the observation of ignorance and superstition, but by the discovery and development of new facts.

Tyndall has eloquently said: "Presented rightly to the mind, the discoveries and generalization of modern science constitute a poem more sublime than has ever yet been addressed to the imagination. The natural philosopher of to-day may dwell amid conceptions which beggar those of Milton."

The history of medicine in all times shows that there has been a gradual concretion of parts, going in the main to make up an accumulation of knowledge valuable and indispensible to all, while at the same time it shows that numerous so-called systems of medicine have existed, which, fruitful of empty ideas and useless fancies, have "dragged their slow length along" and decayed. Wild and groundless theories hold sway long after their fallacies have been exposed. Formerly an attempt to eradicate them was attended with danger, and, even at present, the results of such attempts are slow

* Holmes.

to appear. In this age a wholesome skepticism exists, which, by eliciting proper criticism, and opposing destructive denunciation, assists in arriving at the truth, and surmounting all obstacles, whether morbid growths within or fungosities without; although there yet lingers a spirit described by Dante—

> "There is who hopes (his neighbor's worth deprest)
> Preeminence himself, and covets hence
> For his own greatness, that another fall.
> There is who so much fears the loss of power,
> Fame, favor, glory—(should his fellow mount
> Above him) and so sickens at the thought,
> He loves their opposites; and there is
> Whom wrong and insult seems to gall and shame
> That he doth thirst for vengeance, and such needs
> Must dote on other's evil."

As one after another new facts are developed, and absurd theories abandoned, true science grows, and we take a broader view of life and health and the opposites, disease and death. It would require a volume larger than has yet been issued by this society to contain even a brief notice of the improvements and scientific discoveries belonging to the period of our own observation in all the branches of medicine and surgery. Therefore no attempt will be made, since, in the main, most of the facts belonging to these departments are accepted.

Within the three decades more has been done, by discovery and investigation to perfect the science of medicine, than in all the ages which have preceded.

The indulgence of this society is asked while a brief mention is made of a few practical changes, all of which may not have been so generally accepted as to preclude the possibility of question. Various new and valuable remedies have been discovered, and we have certainly learned new applications of many old ones. The active principles of medicines, have, through the aid of chemistry and pharmacy, been ascertained, and their definite action on the system noted by the experimental physiologist; and, while in a few conditions the crude article, formerly employed, is attended with more benefit than its salts (as in the case of opium), generally, great advantage is derived from the salts in the certainty and promptness of effect, with less disagreeableness in their administration. We no longer fear the use of quinine in fevers and inflammations, nor wait to prepare the system by a course of alteratives for its exhibition; and we

have learned that the earlier it is given the better, and this regardless of fever, nay, the higher the fever, the better is it tolerated, and that in appreciable doses we get its sedative effects.

By the theories of our immediate predecessors, opium and its preparations were contra-indicated in fever and phlegmasia unless premised by venesection and cathartics. Now, they are considered the most efficient and safe remedies in a majority of these diseases. So prominent a truth is this, in the practice of to-day, that we are led to marvel that they were not always used by those who believed the old truth in pathology—"ubi irritatio ibi fluxes."

Although Sydenham, two hundred years ago, thanked God that we had such a remedy in dysentery as the juice of the poppy-head, it remained for this period to practically prove that it is chiefly to be relied on in this disease.

Alonzo Clark, about 1850, gave us the information, that in peritonitis it is the sheet-anchor. In his earlier days it was given after full bleeding, to prolong the effects of venesection. By careful observation he discovered that the good effects resulted without the latter, and now, perhaps, no rational physician has failed to realize the fact that while it relieves pain and irritation, it also subdues inflammation.

Digitalis, once regarded only as a cardiac sedative, and this with accumulative power, is now known to be the most reliable and safe cardiac tonic, and that its so called cumulative effects depend upon the increasing tonicity imparted to the muscular structure of the heart.

But little over a third of a century ago the anæsthetic properties of chloroform and sulphuric ether were discovered. Their value in surgery and obstetrics can not be estimated by those who never saw a surgical operation performed without their use. For particular reasons we recognize the value of each in certain cases, but for general anesthesia we should be guided by the physiological effects, in our choice of one or the other, and not blindly follow individual prejudice, or be governed by pride of country or city.

Guided by the above rule we find that sulphuric ether is comparatively safe, as it first produces asphyxia, and thus gives timely warning. Chloroform produces paralysis of the muscular structure of the heart, and death may be instantaneous, alike in the sick and well, weak and strong.

The practical adaptation in medicine of the various means for

aiding our diagnosis, some of which are new and some old, marks a difference between the physicians of to-day and those of the past, although, perhaps, there are yet to be found in the profession those who need not the aid of the stethoscope, microscope, chemical analysis, thermometer or speculum. By the aid of such means, we are, at the present, enabled more fully to understand conditions which were formerly beyond our reach. By the use of the fever thermometer we can now often know with precision the presence or absence of danger, and we can clearly see why, in former times, we thought patients convalescent when the tongue had cleaned and become moist, the pulse slow, and the skin cool and perspiring, but, in which we often found what we regarded as relapses, as now we know that, had the temperature been tested by the thermometer, it would have shown that fever still existed. The developments in physiology and pathology of the nervous system have been so great that a work written but a few years ago is so far behind in its teachings, in part or in whole, it is useless and misguiding.

It is within the time of the existence of this society that, in a report on the progress of medicine, by the late Dr. Brower, the discoveries and teachings of Marshall Hall were regarded as new and valuable. But now, while we admit that much new and positive information was given, especially in regard to the functions of the spinal cord, his views as to the entire absence of irritability in the cerebral hemispheres have been proven incorrect by the careful experiments of Fritchs, Hitzig and Nothnagel, whereby not only the irritability is clearly established, but the localization of the cerebral functions. The chemical theories of Lavoisier and Leibeg, on the production of animal heat by combustion, no longer prove satisfactory, and we confidently look forward to the discovery of a heat center in the brain, and experiments now being made by Wood have given much encouragement that in the near future it will be found. This latter theory is more in accordance with other known principles of vital force and the action of nerve sedatives in reducing high temperature in disease.

We recognize the fact that constitutional disease is often attended with local manifestations, and, on the other hand, local disease often exists with subjective symptoms, or reflex disturbances, so well marked as to entirely obscure the cause; and the true physician will look well to all the conditions of his patient, and not blindly, or, with prejudice, act with any exclusive ideas.

It is entirely within this period that such great and rapid advancement has been made in the treatment of surgical diseases of women. Thirty years ago, benign diseases of the cervix uteri were regarded and treated as malignant. Dr. Henry Bennett, of London, discovered the error, and thus removed them from the domain of malignant disease to that of inflammation with its accompanying results. Eighteen years afterward Dr. Emmet discovered that what Bennett had seen as inflammation was generally laceration and its accompanying results, eversion, hypertrophy, abrasion, displacement, etc., and the appropriate treatment whereby a complete cure is effected in a short time.

Emmet's operation, destined to revolutionize the pathology and treatment of the disease just alluded to, has recently been assailed by the President of the American Medical Association,—Dr. Jno. T. Hodgen. In the annual address he says, "Great wrong has been done in seeking to follow the lead of Dr. Emmet in the performance of operations for the cure of laceration of the cervix uteri. From the large number of operations reported by many practitioners, it may be fairly concluded that it has often been needlessly and unprofitably performed."

A mere inference drawn from "the large number of operations reported by many practitioners" is here placed in opposition to the experience and observation of many of the most careful surgeons.

Such criticism is vague, and since no reason is given are we to infer that it is biased?

The following observation of Gregory is a fair illustration of the rivalry of opinions, and might, possibly, apply in this case.

In speaking of Mr. Benjamin Bell and Mr. John Bell, (contemporary surgeons and authors in Edinburg), in connection with the "flap" operation in amputations, Gregory says: "Mr. Benjamin Bell must either be a flapper or an anti-flapper, and I humbly conjecture, (for I do not know the fact), that if he is a 'flapper' Mr. John Bell will be a determined 'anti-flapper,' but that if Benjamim is an 'anti-flapper,' John will be a most strenuous 'flapper.'"

Tumors, especially ovarian, were, in our student days, only seen as cases in which nothing could be done, notwithstanding Dr. McDowel, between 1809 and 1830, had operated on thirteen cases, eight of which were scccessful; and now, ovariotomy is shown by statistics to be the most successful of major operations.

The treatment of effusion into the plural cavity by thoracen-

tesis as practiced by Bowditch has, within less than thirty years, become a recognized operation. In my student days, a case was presented clinically, in which one of the best teachers in the country exhibited the patient only to show to the class the utter hopelessness of treatment. Since that time the number of lives saved can not be estimated, because the operation is so common that cases are not regarded as worthy of publication. These operations have, however, met with opposition from physicians and surgeons of the most eminent character in this and foreign countries, and have been denounced as barbarous and useless.

The belief in the germ theory in the propagation of contagious diseases is rapidly gaining, but it is yet problematic. If our means of observation could be improved there would be as much to interest the student in the infusorial world as there is in the starry heavens.

Bacteria have been found in diphtheretic exudations, and at first thought a cause was supposed to exist in a vitalized contagion, but when, upon careful examination, it was found that in the tartar surrounding the teeth of healthy but careless persons, there existed the carcasses, or rather the skeletons, of the same animalcules, we were compelled to withhold our judgment and wait until the collateral branch of science, optics, should be adequately improved.

We have learned more than ever to recognize the influence of the mind on the body, and to see in it a factor capable of producing and curing disease. The subject is, as it were, yet in its infancy, and if it could long ago have been separated from the religious fear of materialism, as it is rapidly becoming by the union of physiology and psychology, its investigation would have been followed by the addition of valuable and interesting truths, which are yet seen only through the mist of preconceived religious errors.

That thought is the essence of the brain, or that the cerebrum produces it, is as susceptible of proof as any other proposition in physiology. It is our duty to accept that which can be proved in relation to this subject, while at the same time we receive the doctrine of the soul as a controlling element or an immortal part, upon faith, as we accept the plan of its salvation. Mind, sitting on its physical throne as a ruler, depends for its support upon the proper performance of function by all its subjects, the organs. Thus, while we admit that it emanates from, and depends upon the vis vitæ, we need not necessarily exclude the doctrine of life, the Psyche.

Among other things in which the physician of our day has a great advantage over those of the past is the number of books upon almost every medical subject.

Of some of them, it is true, we might repeat Byron's statement as to his physician. When traveling in Italy his physician became impatient and vexatious, and determined to return to England. His lordship gave him a letter of introduction to a friend, saying, among other things: "He is the author of a book on medicine, which, although useless, manifests a desire to do something useful, and must therefore be placed to his credit."

Perhaps the most reliable source of independent thought and investigation is to be found in the large number of excellent medical journals at the present time, by which means the busy practitioner has opportunity to read what is going on in the medical world, and to communicate every new thought or discovery, whereas in former days the few journals in circulation were mostly made up from the teachings of a few, and those not of the most practical.

Not only does this age enable the medical fraternity to more powerfully grapple with disease, but it gives to the people advanced ideas of hygienic rules, and their great value when properly respected.

As evidence of this, we need only look to the sentiment of the public as expressed through the acts of the respective legislatures of the States and the general government. We may also congratulate ourselves that through the efforts originating in this society, we at length have a good law establishing a board of health, and we trust that the hope of its friends will be realized in its proper execution. The first board of health in the United States was established in Massachusetts in 1869. Indiana is the twentieth State which has adopted such measures. This salutary influence in preserving health, and preventing disease, thus extended with each succeeding year is encouraging.

The development of preventive medicine and sanitary laws clearly proves that disease can be limited, and in a great measure eradicated, especially those the etiology of which depends upon filth, contaminated water, contagion, and poisonous foods.

But study as we may the influence of dampness, temperature, altitude, and ozone in the production and prevention of disease, all can not live in regions of mountains and pine forests, and a larger part of humanity will remain subjected to disease which results

from locality, occupation, and climatic vicissitudes. More than this, so long as the inseparable human passions, ambition or hope and disappointment, love and hatred, joy and grief, jealousy and revenge wield their power, the physician will be called to minister "to mind diseased," and his services will also be demanded by accidents of birth, ante-natal influences, diseases of infancy and age, those peculiar to wealth, luxury, ease, fashion, poverty and crime.

These come,

> "In many forms to all men; griefs and wounds,
> Sickness and tetters, palsies, leprosies,
> Hot fevers, watery wastings, issues, blains,
> Befall all flesh and enter everywhere."
> * * * Like the sly snake they come
> That strings unseen; like the striped murderer,
> Who waits to spring from the karunda bush,
> Hiding beside the jungle path; or, like
> The lightning, striking these and sparing those,
> As chance may send. —*Light of Asia.*

We, however, can no longer censure the people of the State for a failure to provide for their protection from incompetent and dishonest practitioners, as each branch of the Legislature, at the late session, passed a bill recognizing the right principle on this subject. For some reason neither of these bills passed both houses. The cause of this failure must rest some where, and it would be proper for this society to adopt some measure to ascertain why, after so many years of labor by petition, by committee, by personal entreaty, on the part of many regular physicians, and a clear majority in each house, we still have no law. Whose toes were liable to be stepped on, or whose ambition was in danger of not being realized? Evidently the fault lies in the ranks of medical men, and it is the duty of this society to purge itself of censure.

If the law-making element fails in its duty to make provision for the unprincipled and ignorant practitioners, who infest every community and extort money from the sick and suffering, we may, at least, gain a small degree of consolation from M. Raimon's metempsychosis, according to which the souls of ignorant and unworthy practitioners pass into the animals upon which vivisection is performed.

Probably the Indiana Legislature has concluded to rely upon this mode of punishment, but chloroform was discovered after Raimon evolved the idea, and, were he living, he would be compelled

to "rub his brow and scratch his ear" again for some additional means of punishment, because the "frog or salamander, guinea pig or dog" now lie unconscious, while their nerves are irritated, their plexuses cauterized, their ganglions pierced and their muscles galvanized. If this solution of the question is accepted, we will have a demand for more medical colleges to use up the material.

It is sometimes objected that medicine is not a science, because it is uncertain, and that it has not developed the source and laws of life, and can not, with precision, administer for its preservation.

We admit and lament the lack of knowledge on many subjects, but, remembering past progress and present advantages, we are justified in expecting much of the future, as Byron expressed it, "The best of prophets of the future is the past."

What science is perfect? "Gold amalgamates but does not oxidize;" iron crystallizes, and often disastrous results follow; chemical affinity exists, yet the chemist has not been able to reach the ultimate explanation of any of these. The identity of coal and diamond is admitted, but not understood; yet the one is not rejected as fuel nor the other despised as the most precious jewel.

No one discredits the news of yesterday because transmitted by that undefined force of nature—electricity. No one refuses to eat because it is not explained how, through assimilation, the tissues and delicate organs of the body take from the same pabulum substance for nourishment and repair. Who refuses to live on this earth because its interior is not known, or to gaze into infinite space because we can not comprehend it?

Light, the supporter of animal and vegetable life, exists—we only know it by its properties and effects. The chemist may analyze its rays, and show its wonderful composition of beautiful colors. Its vivifying action works wonders in a delicate and mysterious manner. The myriads of flowers owe their brilliant hues and fragrant perfumes to it. Seeds are planted in faith, that by its influence they will grow and ripen into food for the million. It is correlative with, if not the source of heat and motion, and Tyndall has contributed much to its study; yet, beyond this we know little, except we are told that the fiat went forth: "Let there be light, and there was light." Religion, aided by revelation, has not been so entirely free from inaccurate knowledge as that all see its purity, its loveliness, its divine attributes, through the same mental vision,

and yet, in its Christian light, it is acknowledged the great civilizer of the world.

The dream of the Alchemist is still unrealized, that which he sought belongs only to the Infinite, and we are compelled to admit that there is a limit to our knowledge, and leave to him who created all things, that which we can not comprehend.