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A TRULY VIRTUOUS WILL IS ALMOST OMNIFONTENT.

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ARTICLE I.

[We have requested, of Dr. Joseph A. Eve, the clear-minded and talented author of the following introductory address, a copy for publication, both on account of its intrinsic worth, and the great need on the part of the profession, for just that kind of philosophy it inculcates. We commend it most cordially, not only to the perusal, but to the diligent study, even of those more advanced in the profession of medicine, as well as the young practitioner and the pupil. We are pleased to learn that the present Class in the Medical College of Georgia, to whom it was addressed, perceiving its high worth, have requested a copy of the same for publication in a pamphlet form, which is forthcoming from another press.—Ed.]

INTRODUCTORY ADDRESS.

Permit me, gentlemen, in the name of the Faculty of this College, whom I have the honor to represent on this occasion, to bid you a hearty welcome!

To me has been assigned the task of giving you an introduction to the present course of lectures: and happy will I be,
should the manner in which I fulfil this duty equal the pleasure
I feel in the attempt—should I improve this opportunity, by
exhibiting views of the profession of medicine, and setting forth
principles which shall be of service to you, not merely through
the period of your pupillage, but during the whole term of your
professional life.

You have embarked in the study of a profession which, while
it affords much to excite pleasure, and call forth admiration and
wonder, while it lays open before you a most extensive and
fertile field for virtuous ambition and laudable enterprise, is still
replete with difficulties—a profession holding forth the richest
rewards, yet demanding the greatest amount of labor and sacri-
ifice, the most patient investigation, perpetual study and untiring
application.

In contemplating the present state of medicine, it is difficult
to say which strikes us with the greater astonishment, the
vast improvements which have been made in the science during
the present century, or its extreme distance still from ultimate
perfection: But happily, whether we contemplate its highly
improved state, or its susceptibility of improvement, equal grati-
fication is afforded: Had medicine already attained its highest
state of perfection, it would have been left to us only to admire
and imitate those who had gone before us; had it remained sta-
tionary for many years, we should have been discouraged from
laboring for its advancement, and regarded it as a barren field
in which no laurels were to be won: but whilst the achievements
of our predecessors stand as imperishable monuments to their
well earned fame, and must ever excite admiration, they should
not fail to awaken within us a noble spirit of emulation! Yes,
the youthful aspirant after fame may be encouraged by the re-
flexion, that although much has been achieved, much more
remains to be accomplished: that although many laurels have
been won, more still remain to adorn his brow and reward his
toil!

Generation will follow generation—age after age will pass
away, before medicine shall attain the summit of perfection,
before its cultivators shall behold their work complete.

Like those mathematical lines that may approach each other
forever without meeting, medicine will continue for ages to ap-
proximate without reaching perfection—the art of healing
become more and more improved; but it never can, in the nature of things, attain that state of perfection and certainty, predicted by our venerated, but enthusiastic Rvsn, when "old age and accidents, will be the only outlets to human life." Before medicine could become so perfected, that the practitioner should be invariably triumphant in his conflicts with disease—before he could with unerring certainty repel the shafts of death, man must become perfect, not only in his physical organization, but in the exercise of his reasoning faculties; for although the science of medicine were so perfect, that it were possible to estimate with precision the nature and intensity of the disease and to determine, with mathematical accuracy, the kind and power of remedial agency demanded for its cure, yet unless the human mind were perfect, unless the physician were infallible in perception and judgment, failures would still be common from errors in these faculties: And besides the frequent frustration of his best laid remediate plans, by the stupidity or persifity of those to whom their execution has been entrusted, how often are the most exalted exercise of skill defeated, the most sagacious and scientific labors of the practitioner rendered unavailing, by defect of constitutional energy in the patient, from want of power to live after the disease has been subdued!

Such a consummation of skill, contrary to the order of nature and economy of Providence, is neither to be expected nor desired. It is far better for mankind as a species, that Death should continue to number his victims from the earliest to the latest period of existence, than that Earth should become crowded with a multitude of time-worn and decrepit beings, to whom life had become a burden, in whose bosoms the frost of age had chilled every kindly emotion and frozen up every avenue to pleasure, and whose only hope and wish could be to die! But the improvers of medicine need never apprehend this deplorable result from their labors:—the all-wise Creator of man, to whom alone appertaineth perfection, and who has ordained the science of medicine to relieve the sufferings of his creatures, has mercifully assigned it metes and bounds far short of this imaginary perfection, which it can never pass to their injury. Medicine has always conferred a blessing on the human family individually and collectively, and the more it is improved, the more nearly it approaches a perfect state, the greater and more diffusive will
be the blessing. In direct ratio with the improvement of medicine, will the number of incurable maladies, the opprobria medicorum, be lessened, pain and suffering diminished, happiness promoted, and the average duration of life extended!

In a retrospective glance at the history of medicine, we behold doctrine following doctrine in endless succession, as wave succeed wave upon the ocean, or as the foliage of Autumn falls to be succeeded by the leaves of Spring: one theory appears upon the stage, culminates for awhile in meridian splendour and then sinks down into obscurity and night with all that have passed before: but happily for the cause of humanity, for the advancement of science, exploded doctrines falling fertilize the field of science and render the future harvest more luxuriant. A medical theory may be refuted, the name of its author may be entombed in oblivion, whilst some principle, established or illustrated by him, may outlive the ruin, and prove to be of lasting value and benefit to suffering humanity. Who now does homage to the name of Brown, the unfortunate child of genius, the victim of error? where are his disciples? where his once dazzling doctrine? Behold it, a shattered wreck, floating down the stream of time, no longer extant above the waves; yet it must be acknowledged by all, that to Brown the honor belongs of having announced to the profession a principle that lays at the foundation of all correct theory in medicine, that constitutes the basis of all sound reasoning in physiology, pathology and therapeutics, that vital phenomena are excited and maintained by stimuli or excitants.

From true principles not having been applied to the study and cultivation of medicine, the greatest confusion and uncertainty long prevailed: there was little or no improvement for many centuries, until the light which the Baconian philosophy had shed over the other sciences, began to extend its salutary rays over medicine and dispel the clouds of ignorance and error, that had so long ensnared it. Before this time, the most extravagant notions and wildest hypothesis were prevalent. Instead of building theories on the impregnable basis of established facts, the most absurd doctrines were advanced, and facts then sought and distorted for their support. The only true source of knowledge, nature herself, was seldom consulted: Most of the ridiculous opinions that were admitted into medicine and dignified with the appellation of doctrines, were founded in analogies de-
rived from the principles of other sciences, or in total ignorance of all science, and were nothing more than the reveries of dis-
tempered imaginations. But as soon as the true principles of philosophy were applied to the cultivation of medicine, as soon as physicians began to seek truth by the only correct and legiti-
mate methods that is, by observation, experiment and inductive reasoning, a new era commenced in our science; demonstration took the place of hypothesis, experience of speculation, and the systems that had only served with ignis fatuus' light to bewilder and mislead, soon vanished like the illusive phantoms of a dream.

It is to the principles of the inductive philosophy that we are indebted for all that is valuable in medicine, it is to the application of these principles to the investigation of medical subjects that we owe the great improvements made in the present century—the elevated state to which medicine has already attained; and it is these principles that will advance it to the highest state of perfection of which it is susceptible.

Lord Bacon was the author of this Philosophy; in his great work entitled "Novum Organon Scientiarum," he taught the only correct method of conducting scientific enquiry—he laid down those rational principles of philosophizing which have led the way to all those discoveries and valuable improvements, in the arts and sciences, which have so eminently distinguished the last two centuries from all that have preceded. This great philosophe rose like a sun upon the dark days of mental thraldom and delusion, and with superior light scattered the dense shades that had for ages obscured the human mind; this master-spirit, this oracle of nature, exposed the absurdities of the scholastic philosophy, with the irresistible power of truth, wrested the sceptre from the hand of Aristotle, who had two thousand years, held the minds of men in abject bondage—proclaimed inde-
pendence of thought—instrumental liberty—emancipation from the tyranny of false philosophy; he taught mankind to assert the high prerogative of reason—the noble privilege to think for themselves—the natural and inalienable right to employ their own senses and mental faculties in the pursuit of truth.

"Lord Bacon, (says an elegant writer,) was the first who taught the proper method of studying the sciences, that is, he pointed out the way in which we should begin, and carry on our pursuit of knowledge in order to arrive at truth. He gave
a set of rules by which mankind might deliver themselves from
slavery to names, and from wandering among fanciful systems,
and return once more as little children to the school of Nature.
The task he chose was far more useful to the world, and honor-
able to himself, than that of being, like Plato or Aristotle, the
author of a new sect: he undertook to expose the errors of
those who had gone before him, and to shew the best way of
avoiding them for the future: he had the principal share in pull-
ing down the old building of a false philosophy, and with the
skill of a superior architect, he laid the foundation, and sketched
the plan of another fabric, and gave masterly directions to those
who should come after him—how, upon the ruins of the first,
the temple of science must be erected anew. As in a great
army, there are those whose office it is to construct bridges, to
cut paths along mountains, and to remove various impediments,
so Lord Bacon may be said to have cleared the way to know-
ledge; to have marked out the road to truth; and to have left
future travellers little else to do than to follow his instructions;
he was the miner and sapper of philosophy, the pioneer of na-
ture; and he eminently promoted the dominion of man over the
material world. He was the priest of Nature's mysteries; he
taught men in what manner they might discover her profoundest
secrets, and interpret those laws which Nature has received
from the great Author of all."

This philosophy teaches mankind that the only certain method
to arrive at truth in the sciences is to relinquish all pride; to re-
nounce all preconceived opinions and theories, and to study Na-
ture herself as the only source, from which correct information
can be obtained. It sets out with this fundamental principle—
"Man, the servant and interpreter of nature, understands and
reduces to practice just so much as he has actually experienced
of Nature's laws; more he can neither know nor achieve." It
teaches us, that it is only by patiently observing natural pheno-
mena, and by careful experiment which Lord Bacon styles
"interrogating, or asking questions of nature," that we can pro-
ceed safely and surely in our enquiries after truth; that it is
from facts, thus laboriously obtained and brought together, we
must reason, and not from baseless conjectures and vague hy-
potheses relative to the laws and operations of nature. It is by
bringing together all the facts bearing on any subject that can
be obtained by observation and experiment, by examining them in every point of view and carefully comparing them, that we can arrive at some general conclusion, or determine some fact or principle, applicable to them all, which general facts or principles, when satisfactorily established, become so important and valuable in science, that the celebrated Locke styles them, "the gems of knowledge;"—"but it is obvious that unless the individual facts be true, and include every thing that can affect the result, the general fact or principle must also be false or at least uncertain. This method of conducting the pursuit of knowledge, by forming conclusions from the particular to the general, is termed induction—a logical process which leads the enquirer from particular facts or propositions, collected by experiment, when the subject admits of it, as Chemistry, &c. or otherwise by attentive observation, as in Astronomy, into some general proposition which may constitute an axiom or principle in that science. This is the only certain method of investigating and arriving at truth in the medical sciences:—the moment we leave it we are bewildered in the mazes of error.

But this philosophy, while it inculcates freedom and independence of thought, at the same time requires the most profound humility and modesty—the docility, the teachableness of little children—that with all their artlessness and simplicity, we ask questions of nature, as of a mother, and receive instruction at her feet: it admonishes us, as expressed in the beautifully figurative language of its author, that "the kingdom of man which is founded in the sciences, cannot be entered otherwise than the kingdom of God, that is, in the condition of a little child." There are too many who would enter upon this kingdom proudly, and by violence, as lords or princes, but to such its gates are barred. There are too many, who, like Euclid's royal pupil, would seek a kingly road to knowledge, but in vain: the only avenues to the temple of science, are observation, experiment and careful induction.

It was by the effectual aid of the inductive philosophy, that the immortal Newton made his splendid discoveries in natural philosophy, which have been the glory of his own, and the admiration of all succeeding ages;—but to recount all the good results that have flowed from the same source, would be to detail the history of the arts and sciences for the last two hundred years.
It was not until comparatively late, that physicians have become properly impressed with the importance of the inductive philosophy; hence, whilst the other sciences flourished, medicine languished: and it is only since its cultivators have adopted the principles of this philosophy, and sought truth by induction, that medicine has witnessed such rapid improvements and justified its claims to rank, among the certain sciences: and may it not be said with truth, that more has been accomplished, that medicine has made greater advances towards perfection in the nineteenth century, than previously, in the long lapse of ages, since the days of Hippocrates?

It would be an interesting task to trace the beneficial effects of this philosophy upon the medical sciences, but time will permit us only to refer, very generally, to some of them.

Chemistry, which, before the days of Bacon, appeared "to have an electrive attraction for all that was absurd and extravagant in the other parts of knowledge," first felt the ameliorating influence of the principles he taught, principles which have divested it of all its wildness, extravagance and romance, and elevated it to the state of a certain science—a science which has not only reflected the most important benefits on medicine, but one of more extensive and varied usefulness to mankind: these principles have indeed rendered chemistry one of the most accurate and exalted of the sciences, and thus contributed most to enlarge the sphere of human knowledge, and extend man's empire over the physical world.

This philosophy has been no less successful in its application to anatomy than chemistry: among its most happy results, is the grand system of general anatomy, a noble and enduring monument to the genius and industry of its author.

It was said of Sir Isaac Newton—

"When Nature and her laws lay hid in night,"
"God said, 'let Newton be,' and all was light."

The same high eulogy is appropriate to Bichat in anatomical science, as to Newton in natural philosophy.

Bichat cultivated anatomy according to the most rigorous principles of induction: the means he employed were "experiments on living animals, trials with different reagents, on organized tissues, dissection, examinations after death, observations upon man in health and disease." He performed a great number
and variety of experiments with the simple tissues, which he
"subjected successively to desiccation, putrefaction, necrosis, ebulition, stewing and to the action of the acids and alkalis," the object of which was to determine the distinctive characters of these simple tissues, and to prove that the organization of each is different and peculiar. It was thus, by the most patient observation, by an infinitude of the most minute and laborious experiments, and by careful induction from them, that he was enabled to substitute demonstration for conjecture, fact for supposition, principle for hypothesis, light for darkness, truth for error,—to illustrate many phenomena in physiology and pathology previously deemed inexplicable,—to solve many mysteries unfathomed before, and to become the originator of a new science, whose publication to the world constitutes the most brilliant epoch, in the annals of medicine!

Metaphysical speculation had hitherto entered too much into physical investigation, but this philosophic author "Shewed that the only legitimate aim of the physiologist's enquiries, is to study the properties or functions of living bodies, in health and in disease, and to endeavor to find out their mutual dependencies, the phenomena which they exhibit, the action of external agents upon them, and the uniformity or irregularity of their operations."

The principles and precepts of Bichat have in a great measure banished ontology from medicine and impressed, upon the minds of physicians, the importance of the localization of diseases and of investigating, minutely, and determining with precision, the organic changes in which they consist, which investigations have subsequently resulted in the beautiful and philosophic system of Organic Medicine.

The introduction of the inductive philosophy, into the study of medicine, has by degrees led medical philosophers to consider the subjects of their investigation in the light of physical sciences, capable of being studied as such: and the application of the principles of physical science to these subjects has proven, most satisfactorily, that this is the only correct and successful mode of studying them. It has, by suggesting the value of the employment of the senses in physical research, led to their application to the investigation of disease; and the consequence has been most happy. It has clearly demonstrated that a vast amount of the most exact and valuable knowledge, in pathology, lay con-
sealed from physicians, until brought to light by this method of investigation. The employment of the sense of hearing, until very recently, was restricted almost entirely to the patient's own account of his sufferings, or the still more fallacious narrations of friends and attendants: but since the days of Laennec, this sense, by means of auscultation, mediate and immediate, and percussion, is employed in exploring the physical condition of organs, in the hidden cavities, farthest removed from observation, and reveals information which enables us to decide the diagnosis of many diseases, with an accuracy unattained and unhoped for before—the certainty already arrived at, by the employment of the physical means of diagnosis, in thoracic diseases, cannot be regarded otherwise than one of the most splendid triumphs and valuable attainments of this inductive philosophy, teaching physicians to seize with avidity every thing connected with the subjects of their investigation, to improve every opportunity and try every method, in their power, of acquiring all the discoverable circumstances in every subject.

The sense of touch, formerly employed for scarcely any other purpose than to ascertain the pulse and the temperature of the surface, is now much more extensively used, in the exploration of disease and examination of patients.

Means have been invented, such as the speculum, &c to extend the useful application of vision, and the other senses have all been brought, into the same strict and beneficial requisition.

The inductive philosophy is emphatically the philosophy of facts; but whilst it teaches their primary and paramount importance and declares that observation and experiment, alone, can furnish them, it instructs us that to render facts, when thus obtained, valuable and available to science, they must be brought together, compared and classified for the deduction of principles; which method of deriving general principles from particular facts, generalization, is one of the highest and noblest exercises of the human intellect, and the talent for it most characteristic of genius. Bichat possessed this faculty in an eminent degree, hence his conclusions are so exact, so beautifully true to nature, that they must ever stand as irrefutable axioms in medical science, and his doctrine of the tissues, deduced from his observations and experiments, is justly regarded as a revelation in medicine. But great caution is necessary in the exercise of this
talent—for equal evil has resulted from the error of generalizing, as of particularizing too much—errors into which our profession have too frequently fallen.

Whilst in accordance with the dictates of this philosophy, I would endeavor to impress upon your minds the futility of theories not based upon facts, and the necessity of regarding the truths of nature as the foundation of knowledge, I would, with equal solicitude and earnestness, warn you against the danger of false facts, and the fallacy of experience, as lamentable in the present day, as when first declared by the venerable sage of Cos.

Medicine has always abounded in false facts, which Cullen has correctly said are more numerous than false theories. False facts, or errors in experience, result from superficial, careless, or partial observation and unfair experiment: men are wont too often to see every thing through the distorting medium of prejudice, and to admit nothing that contradicts their preconceived notions, or proudly cherished opinions: many err from want of opportunity, or disposition, to compare their own experience with that of others: many errors have arisen from mistaking the relation of cause and effect: there is no more frequent mistake than that of taking simple antecedence for cause: when one event follows another, a careless observer is almost sure to regard them in the relation of effect and cause, although there may not have been the slightest connection between them; hence the necessity of the most attentive and candid observation, and the greatest care and caution in our experiments. From the want of due attention, cause is often mistaken for effect, and the latter for the former—from the same defect, partial and erroneous conclusions are adopted—all the causes that co-operate in the production of a result are not carefully scanned—the succession or concatenated series of causes that conduce to the same end is seldom traced, with sufficient attention and labor: What more cogent and conclusive evidence can be required to prove the fallaciousness of experience, than the constant reference that is made to it as an infallible proof of the success of the most opposite and incongruous modes of practice? To prevent error and obviate danger, the most rigid principles of a sound and discriminating philosophy are continually required.
Every attempt to exaggerate the importance of principles over facts, or of facts over principles, is alike unphilosophical and absurd—it is equal to the folly of contending for the superior importance of the base or superstructure, in architecture, as though both were not equally essential to the construction of the edifice.

Principles or theories without facts for their foundation, like air built castles, exist only in the minds of visionary dreamers, and facts without principles, are as materials ready for the builder's use, but require his skill and labor to collocate and build them together, in the erection of a fabric, symmetrically beautiful and harmonious in all its parts.

"Should we build facts upon facts," (says Rush,) "until our pile reached the heavens, they would tumble to pieces, unless they were cemented by principles. Medicine without principles is an humble art, and a degrading occupation. It reduces a physician to a level with the cook and the nurse, who administer to the appetites and weakness of the people, but directed by principles, it imparts the highest elevation to the intellectual and moral character of man."

In medicine, all knowledge is either demonstrative or inferential—that is, it is either demonstrable to the senses, or it must be inferred or deduced by the mind, from facts which are objects of sense. Let your attention be engaged now in laying a good foundation in positive facts, that you may have substantial premises from which to reason: Let your study be principally directed to those departments of medical knowledge, which are demonstrative; however difficult, however uninteresting or disagreeable they may be to you, they must be mastered before you can understand those that are based upon them—otherwise there will be no stability in your opinions, no consistency in your practice,—you will be fluctuating as the waves of the sea—your system of medicine, like the house of the foolish man built on the sand.

As medical philosophers, you must contemplate and study man as an assemblage of organs, performing distinct offices; you must acquaint yourselves intimately with the constitution and composition of these organs and their offices in health, with the changes in structure and modifications in action, resulting from disease, and the constituent properties and qualities of the
remedial agents that may be brought to act beneficially upon them—the knowledge of these subjects constitutes the sciences of anatomy healthy and pathological, physiology, chemistry and materia medica, these, being elementary and fundamental, demand primary attention; I would however by no means have you undervalue the importance of the practical branches which are, indeed, the end and object of medical science.

If it be important in every undertaking to commence aright—in every journey to take the path that leads, most safely and directly, to the point proposed; it is certainly not the less desirable and necessary, that in commencing the study of medicine, you should set out with correct principles—and be assured, Gentlemen. it is only the right conception and appreciation of the principles of the inductive philosophy, that can conduct you to a thorough knowledge of your profession—these alone that can make you scientific physicians and rational and successful practitioners.—therefore, have I chosen the subject of this philosophy as most appropriate for your induction into a profession, in which its principles are required at every step. The study of physic in which you are engaged, is literally and truly the study of nature—the very term physician, signifies a natural philosopher, a naturalist, one whose business and study are with nature—this is the volume whose pages you must read—the inductive philosophy, the only teacher that can unfold to you its knowledge.

Our plan of instruction has been already made known* to you, our arrangements and facilities, for demonstration and imparting knowledge in the various departments of medicine, are open to your inspection: without pompously boasting of superior claims to your patronage, I will only promise, for myself and my colleagues, the utmost endeavors to impart to you the largest amount of useful information and to teach you important facts and correct principles in medicine. But whilst this will demand our most arduous efforts, it will require a corresponding degree of attention and study on your part to render our labours profitable to you. Were we to devote our whole time to instruction and labor incessantly day and night for your improvement; had we all human knowledge; were we masters of every science.

*In the annual announcement of lectures.
and every art; had we the eloquence of Demosthenes, could we lecture to you in language more mellifluous, in strains more sweet and enchanting, than angels use; all would avail nothing, without your most diligent attention here and studious application to books at home: We might entertain you for the time; but no lasting impression would be made on your minds; you would return unimproved, unprofitted, by your sojourn among us.

The strong desire I feel for your improvement prompts me to urge upon you, with all possible emphasis, the indispensable importance of employing all your time, with the greatest assiduity and industry, to acquire and retain knowledge. Every minute lost now is lost forever! Were you to live a thousand years, you could not redeem one moment of misspent time. Every hour has its own occupation and you can not crowd into it the concerns of another. Your respectability and success in the profession will depend, in a great measure, upon the improvement you make of your present opportunities—if they are not improved, the loss is irreparable,—no future industry, no subsequent efforts can make atonement for it; but if properly improved, the benefit will be experienced through your whole life; and the full amount of good resulting not to be estimated, until you shall have terminated your professional labours. Far more valuable than gold, knowledge is not lost in using, but improves, grows brighter the more it is employed. Knowledge has been very appropriately styled, by the author of inductive philosophy, "Power:" knowledge in medicine is indeed power of the highest and most noble order—power approaching nearest to Divine—it is truly God-like in its nature—it is power to heal the diseases and relieve the sufferings of our fellow creatures: in no business or occupation in life, does man exercise an office more heavenly, in none is he enabled to follow more closely the footsteps of his Divine Master who went about doing good, healing the sick, relieving the distressed, and comforting the poor. How glorious a vocation!—how supremely calculated to ennoble and exalt human nature!—how eminently productive of the highest happiness and most refined pleasure to him who practises it, with proper motives and under the influence of correct principles and feelings!—how important then that, in qualifying yourselves for such a profession, no time be lost in trifling amusements and frivolous pur-
Introductory Address.

suits! Should you find, hereafter, when the duties of this profession devolve upon you, that time misspent and opportunities, unimproved, have left you unprepared to discharge them aright, how condemned would you feel before the tribunal of your own conscience!—how guilty in the sight of heaven! The present is the time to prevent the future upbraiding of your conscience, to deliver yourselves from the lacerating thoughts that must ever torture those who have, in proper season, neglected to lay up stores of knowledge against the days of need. When called on as the sick man's only hope, when wife and children, with streaming eyes and groans of anguish, look to you to rescue the husband and the father from the grasp of death; and when convulsively struggling with the grim monster, in his agony, he cries to you for help, how bitter would be your remorse, should your inability to afford relief be chargeable to your indolence or neglect—should it be the consequence of your having failed to qualify yourselves for the high and solemn responsibilities you have assumed. In such an awful hour, so fraught with grief, how terrible then to be constrained to mourn over murdered time and opportunities forever lost! Happy would I be, could I persuade you not to sow the seed that yields such bitter fruit! Could I do justice to my feelings and in force of expression equal the intensity of my interest for you, I would so forcibly impress upon your minds the importance of improving every moment of time, that your collegiate life, the period of your pupillage, would always afford you pleasure in retrospection;—You should ever be enabled to look back with delight on time well spent and opportunities improved;—in the discharge of your responsible duties—in every trial and difficulty, you would be sustained and cheered by the invigorating confidence that you are prepared to do all that man can do.

Whilst I would most heartily congratulate you, upon entering the profession at such an auspicious period—when medicine has been so far elevated above its former position—when medical education has been rendered more complete—when higher honours and rewards are promised those who will seek them with adequate zeal and industry; I should not fail to remind you that much more will be required of physicians henceforth than heretofore,—that moderate attainments and limited qualifications will no longer suffice:—correspondingly greater labors and
sacrifices will be demanded: medical science must be cultivated with more ardour and assiduity: there must be more time devoted to study; more untiring perseverance and industry in the charnel house, the museum, the laboratory and the infirmary.

The field before you is wide and fruitful; but without proper culture it will yield no harvest, self-indulgent ease and indolence will reap no reward but contempt and shame! If you would rise to eminence and distinction in your profession, you must pay the price, "laborious watching, toil and care." You must turn away from the blandishments of pleasure, the delightful converse of friends, the fascinations of the social circle, to trim your lonely midnight lamp:—You must leave the gay and festive scene, and familiarize yourselves with the sick, the dying and the dead. It will not be yours to contemplate human nature, in its strength and majesty, its beauty and loveliness; your study will be of humanity in its weakness, its most distressing and appalling forms, in decay and ruins: But are not the inducements sufficient—the recompense most ample to compensate you for all the sacrifices you shall make, for all the privations you shall suffer, for all the labors you shall undergo? The profession of your adoption will afford you field for the employment of the noblest faculties and exercise for the most exalted benevolence and heavenly charity: the gratitude of the widow and the orphan, the blessings of the poor, the respect and regard of the wise and virtuous, the approbation of your own consciences and the approving smile of heaven, shall be your rich reward—a reward far more glorious and worthy of aspiration, than heartless fame or sordid wealth!
ARTICLE II.

Amputation of the Penis, for a fibrous induration of the prepuce and body of the Penis. By W. H. Robert, M. D., of Columbia County, Ga.

The treatment of gonorrhoea is too much neglected by physicians generally, which is one of the reasons why patients laboring under this disease very rarely place themselves immediately under the care of an intelligent practitioner, and continue to drench themselves with patent nostrums, or to yield to the treatment of quacks, old negroes, &c. until they become so much affected that it is impossible to conceal the disease. The effects then become worse than the disease itself, and are manifested by strictures of the urethra, fistulous openings, fibrous enlargements of the prepuce, indurated fibrous tumours in the perineum, and sometimes rupture of the bladder, infiltration of urine and gangrene. Are not the consequences of gonorrhoea then to be dreaded as much, if not more, than those of syphilis? Yet there are many physicians who do not take the trouble carefully to study gonorrhoea, and who consequently very often fail to treat it with success; we very often see them prescribe one remedy, and would continue it for months, if the patient would submit to it. Such a course might be tolerated, if there were a certain specific against this disease, but the contrary is but too well established. I recollect a case in which a patient laboring under inflammation of the testicles, (the consequence of gonorrhoea) applied to a respectable practitioner, who ordered him to poultice the inflamed part, and continue it for two months. The patient being all this time scarcely able to walk fifteen steps, finally refused to submit to the treatment any longer, and applied to another physician, who ordered twenty leeches to be applied daily; the second application was sufficient to dissipate all trace of inflammation, and the patient speedily recovered. I have lately had occasion to see a few cases of neglected or badly treated gonorrhoea, one of which I will here relate: 

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The subject of this narrative being a stupid African, and having concealed his disease from his master, rendered it impossible to obtain a circumstantial account of the origin and progress of his case. It has been ascertained, however, that he contracted gonorrhoea about five years since, that he was subjected to no treatment, that his penis soon began to swell, the passage of urine to become obstructed, until finally it ceased to pass through the ordinary channel and made its way by fistulous apertures through the penis in various directions. He states that the enlargement commenced with phimosis, but the appearances of the tumour do not permit the belief that this state of the prepuce continued.

The patient, about 45 years of age, the property of Mr. A. M., was sent to me in the beginning of September, when I found his situation as follows: The penis presented the appearance of a tumour, measuring 12 inches in circumference, nearly globular, with the skin studded with warty excrescences, and containing a number of deep fissures through which the urine made its escape. The orifice of the urethra had partaken of the morbid growth and was nearly an inch in length, but the smallest probe could not be passed up the canal for more than an inch. The glans was uncovered by the prepuce and very much enlarged, though by no means so much so as the body of the penis. It was somewhat indurated, and its surface was covered with innumerable small tumours, apparently tubercular, and which gave it the aspect peculiar to the strawberry or mulberry. The prepuce was lost in the general transformation of the skin and subjacent cellular tissue of the penis. The enlargement extended to within an inch and a half of the pubes, the remainder of the penis being in a normal state. There was no enlargement of the inguinal glands.

From the long standing of the case, from the impossibility of introducing a bougie, and from the extent as well as the cause and nature of the tumour, amputation was deemed the only expedient that promised relief. I therefore performed it in the usual way, in the presence of Dr. J. Butt, on the 14th September last, at 12 o'clock, M. With one stroke of the knife I amputated the penis at an inch from the pubes. Having previously applied a small bandage around the root of the penis, which prevented the retraction of the cavernous bodies, we were enabled to apply
without difficulty the ligature to three arteries which required it. A silver catheter was then introduced into the bladder with ease, and adhesive strips, a compress, and a T bandage completed the dressing.

4 o'clock, P. M.—Discovering that there was considerable oozing of blood from the stump, I applied a large piece of sponge as a compress. Complained of considerable pain in the stump; ordered 50 drops of laudanum to be given at bed time; pulse evinced some little excitement.

15th. Patient passed a bad night, on account of the pain; pulse 100, and slightly intermittent; has passed his urine during the night; no more oozing; bowels regular; ordered a drachm of Peruvian bark to be given three times a day.

16th. Passed a pretty good night; still complained of some pain; pulse 90, full and strong; passed his urine without any difficulty; appetite good.

17th. Passed a good night; pain diminishing; complains of the bandage being hard; removed the bandages, which were very stiff and hard; the wound looked very well, had not united by the first intention, but appeared to close in a circular manner; pulse 80 and regular; re-applied the dressing, still leaving the catheter in the bladder.

18th. Patient continued to improve, without any unfavorable symptoms; appetite good; all the functions appear to be performed in a healthy manner.

22d. The dressing has been renewed daily since my last report; the wound has a very healthy appearance, and has gradually closed in a circular manner; removed the catheter; the ligatures have come away; urinated freely.

30th. Patient improves rapidly; the wound has closed very regularly, but in order to keep open the urethral orifice, I introduced a gum elastic bougie during every night; has complained for a few nights past of pain in the stump, produced by erections.

Oct. 15th. Wound has closed until it is now about the natural size of the urethra, patient urinates in a full and bold stream and is entirely well. The stump is about an inch in length.

On examining the tumor after the operation, the urethra could be distinctly traced from the point of section, to within about two inches from the urethral orifice. In this course it gradually diminished in size until its caliber became completely
obiterated. The occlusion continued about an inch, or up to the glans, in which the canal was open. In the narrowed portion of the canal were found a number of small apertures, leading into and through the tumour in various directions, thus enabling the urine to escape as stated above. The corpora cavernosa were easily isolated from the general mass, the intervening cellular tissue not having been so much indurated as that more externally situated. These bodies were however, considerably condensed. The remainder of the mass was firm, fibrous, and evidently the result of hypertrophy and induration of the integuments and subcutaneous cellular tissue, induced by the irritating qualities of the urine, which continually oozed through it.—

There was no earthy deposit in it.

The specimen has been presented to the Museum of the Medical College of Georgia.

ARTICLE III.

Case of the Passage of a Biliary Calculus of remarkable size. Read before the Medical Society of Augusta, on the 6th December, 1838. By F. M. Robertson, M. D. of Augusta, Ga.

Mr. J. P. S. aged 40; born in Ireland; came to the United States in 1823. He was the subject of autumnal fever the first season after his arrival in this country. The fever was extremely severe, and his recovery protracted. He afterwards suffered, repeatedly, from the same disease, and, for several years past, has been subject to attacks of, what was termed, bilious colic; they were frequently followed by a jaundiced state of the skin, which was very difficult to remove, though all the remedies, reputed to be useful in such cases, were used.

I was requested to visit Mr. S., on the 12th of April, 1838, who, the messenger stated, was laboring under a severe bilious colic. When I arrived, I found him drawn completely double with pain; pulse quick, but small and feeble;* nausea and vom-

* I should here state, that in health Mr. S. has a small and feeble pulse, and rather quicker than natural.
iting; constant desire for cold drinks, which were thrown from the stomach as soon as taken; no bile with the fluids thrown from the stomach. The tongue was moist, expanded and lightly coated with white fur. The pain was paroxysmal; that is, though he was, at no time, free from pain, yet the exacerbations were so violent as to cramp his whole muscular system. When the paroxysm, in which I found him, had passed off, I had an opportunity of making a more minute examination of the different regions of the abdomen.

Pressure upon any part of the abdomen produced considerable pain; the right hypochondrium, however, was extremely painful; it was also, decidedly enlarged, and percussion gave a dull sound below and in advance of the margin of the false ribs. Immediately over the gall-bladder, and track of the ductus communis, the pain was intense and circumscribed; the patient stated that it could be covered with a silver half dollar. In applying cups to this region one was placed immediately over the seat of the circumscribed acute pain, and the suffering produced by the exhaustion of the cup was so intense that it became necessary to remove it entirely. The patient stated that each stroke of the piston, in exhausting the cup, caused a sensation as though a dagger had penetrated this particular spot. His skin and eyes were jaundiced.

Each paroxysm of pain produced vomiting; but, through the whole course of the attack, no bile could be detected in the matter vomited. The bowels were easily moved by cathartics, and without increasing the pain. Opium and the warm bath were used freely; and, as the diagnosis was not clear, and inflammation was feared, blisters were applied to the abdomen and region of the spinal column. On the fifth day his strength evidently failed, and, though the paroxysms of pain were not so frequent, yet, symptoms of a fatal termination exhibited themselves; such as extremely small, feeble and quick pulse; cold clammy sweat; coldness of the extremities and forehead, and singultus. Under these circumstances, and from the fact of his having been accustomed to take two or three drinks of brandy and water during the day, this form of stimulus was administered pro re nata. He continued in this state until the sixth day, when he informed me, at one of my visits, that something had given way, at the point at which the pain had been most severe,
and he felt—to use his own language—as though it had fallen down to the lower part of the abdomen. From this moment he felt no more acute pain over the region of the gall-bladder and ducts, but referred to an uneasy sensation felt lower down the abdomen. He gradually recovered, though it was some time before his skin cleared off, or his bowels were brought into a regular state.

He continued in this state until the 9th of August of the same year, when I was summoned to visit him in haste. On my arrival, I found him in extreme anguish. The pain was confined to the region of the ileo-cecal valve; pulse feeble, and quick; cold, clammy sweat; constant nausea: vomiting accompanied every paroxysm of pain. Unlike the previous attack, there was no pain over the region of the liver, and the matter vomited was highly colored with bile. It was impossible to get a passage through the bowels. Opium and the warm bath relieved the pain; but it was impossible to get any thing to remain on the stomach sufficiently long to act upon the bowels, and enemata were repeatedly returned uncoloured.

On the evening of the second day it became necessary to administer stimulants, as in the previous attack, and a large blister was applied to the whole abdominal region. The stimulants remained on the stomach, but whenever any thing was taken with a view of relieving the confined state of the bowels, it immediately brought on vomiting, accompanied by extreme pain in the lower part of the alimentary canal. At one time he threw up nearly half a pint of dark brown fluid, of an odor similar to that of fecal matter. On the evening of the third day, I determined to try the efficacy of the croton oil. I applied endermically. For this purpose I tore up a small portion of the separated cuticle from the blistered surface, on each side of the abdomen, and rubbed in three drops of the oil immediately over the ileo-cecal valve, and two drops on the opposite side. In about eight hours after the application the bowels were slightly moved, and the sufferings of the patient were greatly relieved.*

On the afternoon of the next day, the 12th, while on the close stool, he stated to his wife that the cause of his disease was

*I had tried this oil before, and knew it to be good. It had operated promptly, in several cases, administered by the mouth.
coming away, but he feared his strength would not enable him to pass it. He bore down with considerable effort, when a solid substance escaped from the rectum, and struck the bottom of the vessel with so much force as to be heard all over the room. The substance was carefully washed and handed to me at my next visit. I found it to be a gall-stone of unusual size. It was nearly the shape of a large plum; its long diameter measured one inch and a tenth; the shortest diameter one inch; its greatest circumference three inches and three-eighths; the smaller circumference three inches and one-eighth. It weighed, after having been twenty-four hours out of the intestines, two drachms and ten grains. It was composed of concentric laminae, of a dark brown color, interspersed, at a few points, with spots of dull white. Nearly the whole of the outer lamina was rubbed off in washing it. The particles, that crumbled from it, could easily be marked, and imparted a deep yellow tinge to the water, though on becoming dry they were hard, and failed to impart the yellow color to water in which they were crumbled. It was tasteless. The effect of heat was not tried, as I was anxious to preserve the specimen with as little mutilation as possible.

The passage of a calculus of such dimensions is very unusual; much larger have been discharged, though some think that the passage was effected by ulceration between the duct and duodenum. Pemberton, in his work on diseases of the abdominal viscera, states that "the size of gall-stones, which have passed without destroying the patient, almost exceeds belief. I have, in my possession, the model of one whose long diameter is two inches and a quarter. The patient, from whom this passed, suffered for five months, the most acute pain. From the magnitude of the stone, I should believe that ulceration—in consequence of inflammation—had taken place between the duct and the duodenum, and that thus an aperture was made for the stone to pass into the intestines, as it is unlikely that the duct could admit of such dilatation."

Dr. Baillie, in speaking of the extent to which the biliary ducts are capable of being dilated, states that he has seen "the ductus hepaticus and ductus choledochus so much dilated as to be nearly an inch in their transverse diameter." He further states "this dilatation of the biliary ducts takes place in consequence of the
passage of gall-stones; and it is astonishing how large gall-stones pass into the duodenum.” He also states, that he knew an instance of one which was “full as large as a hen’s egg.”* Marcet mentions a biliary calculus two inches and five-eights in length, and two and a quarter in width, but does not state whether it passed from the living subject, or was found in the gall-bladder after death.† Good, in speaking of the passage of gall-stones, states that “the calculus, when voided, has sometimes been found to measure two inches in its long diameter, and upwards of three inches and a quarter in its widest circumference.” He does not give the particulars of any case, but refers to the Medico-Chir. Transactions, vol. 12, article 21st.

Blagden, in the Medical Transactions, relates a case in which the gall-stone excited inflammation, which resulted in the formation of an abscess in the liver, adhesions, and, finally, a discharge, externally, of the contents of the abscess, with the calculus, which weighed nearly an ounce and a quarter. The patient, who was a lady of sixty-six years of age, gradually recovered ‡

Many cases are on record in which biliary calculi, of an enormous size, were found in the gall-bladder after death; also instances in which no inconvenience was produced by their presence during life,—post-mortem examination alone revealing the fact.

Hebberden mentions the case of Lord Bute, after whose death a calculus was found in the gall-bladder, weighing two drachms, though he had never complained of jaundice, or any disorder which could be attributed to this cause.§

Good mentions that, “in Dr. Baillie’s plates, there is an example of a concretion, of the size of a pullet’s egg, which filled up the whole of the fundus of the gall-bladder. Yet so perfect was the adaptation of nature to the case, that the bladder not only because sufficiently enlarged at its base to hold the concretion, but was also sufficiently enlarged immediately above it to form a new reservoir, and contain very nearly, the usual quantity which the gall-bladder is capable of holding in its healthy state.”

* Works of Dr. Baillie, by Wardorp.
† Dictionnaire de Medicine, art. Calculs, par P. Jolly.
‡ Good’s Study, vol. 1st, p. 229.
§ Good’s Study, vol. 1, p. 300.
It would appear, from the history of this case, that the calculus must have escaped into the duodenum during the first attack in April, and remained in the small intestine until the second attack, in August, which resulted in its expulsion from the bowels. No doubt this second attack was brought about by the calculus gradually working down to the ileo-cæcal valve and thus becoming entangled, produced a complete obstruction of the alimentary canal. In the first attack no bile was found among the matter thrown from the stomach, and cathartics acted readily on the bowels, but without affording any relief. In the second, bile was copiously ejected from the stomach, cathartics would not act for some time, and when they did, relief was obtained, and in a short time, the calculus was discharged.—

The skin became jaundiced in April; not so in August.—
In the first attack, the pain was more acute, and continued in the region of the ductus communis, and was only relieved after the sudden giving way which the patient experienced. In the second, the pain was confined to the region of the ileo-cæcal valve, and cathartics increased it, until the calculus was dislodged from its situation.

The concretion has been deposited in the Museum of the Medical College of Georgia.

The gentleman gradually recovered, and is now residing in the city of Savannah.
PART II.—REVIEWS AND EXTRACTS.


There is a rich jewel of pathological truth in the following observations of Dr. Mitcherlich, which we are happy to see so fully sanctioned by Dr. Johnson. Dr. Johnson has never been a Broussaist, never a solidist, never a humoralist,—indeed, never a party man; but a man, early and well prepared for observation, abundant opportunities for which have been afforded him the world over, and well embraced, from India to America. He now sits crowned with the honor of all the science which nine septenniads most profitably spent could heap upon him. We will not say there is no other man now on earth possessing equal medical literature; but we certainly know of no other in whom are combined so much of the general and medical scholar, the sound logician, the man of common sense, and the practical man, as Dr. James Johnson, of London. These pre- eminent qualifications prepare him for just what he is—the most able reviewer of the medical world. With powers of discrimination, as if intuitive, he has always been found, independent of partiality or prejudice, early and immovably fixed in the ways of that truth which is fortified by the invulnerable bulwark of sound induction. With all that confidence which the soundest reasoning from the fullest stores of truth could afford, he has always been the first to foster and cherish truth, to clip the pinions of the fanciful in their giddy flight, and to mark the errors of ultraism of every description and from whatever source. He never was troubled with that limitation of mind so common in the profession, which leads men, when they get a glimpse of one cause, so to magnify it, as to be able to see and contemplate, and reason from no other. In short, he is a sound philosopher, who lends all the energies of his mighty intellect to bear on medical science in all its departments. He is a cause-and-effect man—examines to its very elements, every cause, whether active or passive; looking well to its proportionate aptitude to the effect. Thus has he found that neither a purely nervous, nor a purely humoral pathology, was the true and sound philosophy of medicine, but that truth consisted in, and is deductible only from a due estimate of active and passive causes; and that whilst the principles of action which are taught by sound physiology are true, and that all deviations from that physiological state indicate disorder or disease; that it is not less true that the fluids of the system have also their physiological and their pathological state, and that
these are to be as duly considered in the reasoning process, as the physiological and the pathological conditions of the action.

We know of no calamity which could befall the profession, which would be a parallel with the death of this truly great man. We only regret that he has not, according to the nature of the "stream of human life," nine more "septenniads" to live. But we recall us from the wanderings, if such they may be considered, into which our admiration of such a man as Dr. J. leads us, and in which we ever delight, and turn to the consideration of the interesting pathological point to which we at first adverted. It is the idea of "the healthy composition of the blood." This is a subject which, if not of paramount, is of equal importance with a healthy state of action. And why? The reason will be found in the fact that, whenever the blood is found to deviate from its healthy composition, disease must as certainly follow, as from a like deviation of action. Indeed that is generally the cause of this.

These are doctrines which the mode of the world has, for the last twenty years, by clamor and dogmatism, kept in the back ground. But truth, smothered by the mists and clouds of false reasoning, and trampled down by magisterial feet for a season, is like the unquenchable fire of the volcano. In its proper time it will burst forth with resistless power and brilliance, illuminating and fertilizing the fields of science by the refreshing influence of its light in exposing to view and banishing every error.

We will give the world the credit of having been able, in all ages, to perceive the fact, that certain parts of the ingesta which are left in the first passages, after the functions of digestion and chylification have been exercised on them, are at least superfluous, or "no longer of use in the animal economy;" and not only so, but that disease must be the consequence of the continued want of their excretion. This has however, been a plain matter for comprehension. But an age has not half passed away, since the dominant philosophy of the medical world would not allow that medicines passed from the primae vae into the circulation; and physiologists were almost made to believe they were first generated, and then nourished and sustained by sympathy. Thus forestalled, they have not been able to realize the truth that excretion is as necessary from other parts, as from the first passages. But whilst their anatomy has stared them in the face with the fact that, as perfect and ample arrangements had been made for elimination from the blood, of its refuse matter, as those arranged for the bowels; and whilst their physiology taught them that these secretions and excretions were actually effected, still they have strangely lapsed into that weakness which allowed them to conclude that although, ordinarily in health, these depurating functions went on with great regularity, and that large depurating functions were effected by them, especially
those of greatest importance, that is to say, the skin, the liver and the kidneys; yet their interruption for a longer or shorter time exercised no morbid tendencies. They were not able to conceive the fact that the retention of those excretions which consisted of effete, superfluous, acrid, or other materials which were no longer useful or proper in the economy—whose separation was necessary to keep the blood in its natural, physiological state, or preserve "the healthy composition of the blood," must, by the great change in its composition, necessarily effected by such retention, unavoidably alter the physiological state of the blood to a pathological one. "Action,"—"the state of action," was the everlasting cry—this the beginning and the end of the pathology. "Increase," "decrease," or "translate action or excitement" by direct appliances, as cold, abstinence, stimulants, &c. the sum total of the therapeutics.

Every one has known the ills inseparable from too long suspension of alvine excretion. Our author, Dr. Mitchellich, has laid before us as plainly the ills consequent to the undue suspension or entire cessation of one of the other excretions which are more hidden, and destined for the still further purification of the nutriment after it has passed into the circulation—we mean the kidney secretion. See in the second paragraph in the extract we are about to make, the whole facts in such a case—facts, not of supposition, but of experiment and observation of such men as Prevost and Dumas. Here ocular inspection, with the assistance of animal chemistry, prove the fact that all things which should be eliminated by urinary secretion, are found in the blood, and in immediate connexion with this disease, as the next and immediate sequent or phenomenon—proving its relation of effect, co-extensive with the circulation itself, which now becomes the universal distributor of an incorrigible cause of disease. Surely no one will hereafter find difficulty in applying this doctrine to the derangements of other secretions, and especially those of great and frequent import, as the liver and the skin.

We are of the opinion that the plainest farmer would understand this whole philosophy, were we to tell him, by an analogy familiar to him, that the first passages are comparable to his barn in which he stores his sheaves of grain—that chylification is as the winnowing process—the absorption by the lacteals as the grinding process; but that the bran is not separated and the pure flour obtained until it passes the sieve or boulting-case. These secretories are the internal boulting-cases which separate from the pure, and finally useful part of the aliment those ingredients which are unfit for use in the economy.

Now let us apply the doctrine to the more or less complete obstruction of cutaneous or hepatic excretion; and see what must as truly follow from these, as the phenomena which we
know to result from suppressed urinary secretion. In few words we may say that, from the former, all those phenomena arise which belong to what we call inflammatory fever in all its usual forms, not traumatic; as well as all those phenomena which we recognize as effects of cold. From the latter, all those which are recognized as hepatic symptoms; both of which parcels of phenomena have been too little studied in view of their etiology; and should be more attentively examined in the same relation to their relative secretories, as those which attend renal derangements. Animal chemistry has indeed done much; but in relation to the two function to which we now allude, it has done little, except to investigate the physiological state of the secretions. The blood should be analyzed under these several and combined suppressions, and the constituents of those secretions in health, shown to exist in the blood in disease, as competent cause of morbid phenomena, and as serving as such, as really as do free uric acid, free lactic acid, &c. &c. in the blood consequent on suppression of urine.

When the whole etiology of disease is thus made plain, and not until then, will the therapeutics applicable to particular diseases be worthy of men who aim at truth and sound philosophy in medicine.

On the Action of Diuretic Medicines. By Dr. C. G. Mitchellich.

(From the Archiv. Für Anatomie, Physiologie, von Dr. J. Müller, Jahrgang 1837. Heft. 3.)

We trust the following copious analysis of an essay coming from so distinguished an authority as Dr. Mitchellich, on so interesting and important a subject, will not be considered out of place in a journal devoted, as ours ever has been, to the advancement and improvement of practical medicine. If there be any one class of therapeutical agents more abused than another, in the hands of the mere routine practitioner, it is the class of diuretics. In treating the disease for which diuretic medicines are principally employed, namely dropsy, it has been and still is too much the practice to prescribe for a mere name, the pathological condition on which dropsy may depend, and the primary disease of which the dropsical effusion is but a symptom, being entirely left out of consideration. Did the physician, when prescribing diuretics, recollect that most of those articles of the materia medica which are specifically and strongly classed under this head, are powerful local stimulants, and that it is by their revolent effects combined with the diuresis which they occasion, that they produce beneficial results, we should not so often see them prescribed in cases wherein the primary affection is seated in the kidneys, this affection being accompanied with inflammation or at least irritation of those organs, and consequent diminution of the urinary secretion; in which from an exclusive attention to the latter circumstance their use appears to the superficial observer to be indicated. In such cases their employment cannot fail to add to the mischief, the best diuretics obviously being the lancet and the antiphlogistic plan of
treatment, which, by removing the cause of the diminished secretion, would tend indirectly to establish its perfect restoration. For a knowledge of the fact that dropsical effusion is frequently dependent on the state of the kidneys, and that the mark of this dependence is plainly observed by the edematous state of the urine, we are indebted to the pathological researches of Drs. Bright, Christison, Gregory and Osburne. We shall without further preamble present the essay to our readers. The urinary secretion removes superfluous water and other materials, which are no longer of use in the animal economy, from the mass of blood, and, connection with those organs destined to similar functions, keeps up the healthy composition of the blood.

Should the urinary secretion be stopped, serious diseases are occasioned. The extirpation of both kidneys, according to the experiments of Prevost and Dumas, produces death before the tenth day, and the blood is then found to be thin, mere fluid than natural, abounding in urea; serum also is diffused into the cerebral cavities, the mucous membrane of the lungs is covered with mucus, and a quantity of thin faces with a considerable quantity of bile is found in the intestinal canal. Should the suppression of the urinary secretion not take place suddenly, as in the experiments on animals just mentioned, the disease (is idar a renalis) in such case proceeds as follows: a urinous taste is produced in the mouth, the cutaneous, salivary and intestinal secretions are increased, and emit a urinous smell; violent fever, and dyspnea ensue, severe headache with dizziness, somnolency, delirium, convulsions, and apoplexy or suffocation, terminate life. On instituting a post-mortem examination, there is then found a copious collection of water in the different cavities, and the colour of urine is also distinctly perceived. The non-secretion of the urine from the blood makes this latter fluid thin, produces increased secretion from the other secreting organs, is followed by effusion of serum into the cavities, and gives rise moreover to peculiar symptoms, which in all probability depend on the action of the constituents of the urine. Should the urinary secretion be gradually diminished, without becoming entirely suppressed, the results are of a different kind, and dropsy becomes established; this for instance takes place in degenerescence of the kidneys. Cases are on record in which no discharge of urine took place for months or even for years. Richardson mentions a case in which no urine was ever passed, and that without any inconvenience. Such observations are to be considered extraordinary phenomena, and stand in need of confirmation.

The urine in a healthy individual has an acid reaction, a specific gravity of 1.005—1.03, at most of 1.025 (Prout), and should contain from 4 to 8 of solid constituents. Great varieties are found here, according as the urine of the morning or the evening be made the subject of examination, according as the condition be after copious drinking, or a long thirst, &c. The quantity of the urine evacuated daily by a healthy man varies considerably, and depends on the quantity of the fluids secreted by the skin, intestinal canal, &c. and on the quantity of the fluid and solid food consumed by the individual.

The ordinary constituents of the urine are: free uric acid, free lactic acid, lactate of ammonia, sulphate of potash and of soda, phosphate of soda, biphosphate of ammonia, chloride of sodium, murate of ammonium, fluoride of calcium, phosphate of lime and magnesia, silica and urea, as also an indeterminate quantity of animal matter. Besides this, the urine also contains some mucus from the bladder.

These constituents are constantly found in the urine of an individual in the state of health, but not always in the same quantity, nor in the same relative proportions. The urine of children is poorer in urea and uric acid than that of adults. The cutaneous transpiration exercises a very considerable influence on the urinary secretion, and the greater the quantity of fluid produced from the body by that means is, the more concentrated is the urine, and in the less quantity it is secreted. Accordingly we find a great
difference in warm seasons and in winter with respect to the secretion of urine, as also in a moist and dry atmosphere. When the intestinal discharges are copious, a smaller quantity of urine is secreted. Nor can we, under such circumstances, raise the urinary secretion by means of medicine, as in the opposite case. Drink exercises still greater influence, as the urine flows so much the more abundantly, and becomes poorer in solid constituents the more we drink. Water is carried away by the skin, &c. but in consid-
erable quantities also by the kidneys. On this account the urine is more concentrated in the morning than in the evening, because less is drunk at night. Should the drink contain other materials in solution, these also frequently change the composition of the urine, as they are partly excreted through the kidneys, whilst some of them influence the formation of other materials. The food produces an important change in the urine, as many substances which are absorbed after digestion are not converted into mate-
rials of nutrition, and are eliminated with the urine; they may have suffered a change during their circulation or not. Thus after digestion the urine is rich in urea, uric acid and salts.

The urine undergoes very important changes in disease both with respect to its quantity, and also with respect to its composition. These differences we have here noticed, but very briefly. The quantity of the urine is very much increased in diabetes, at the same time that a greater quantity of wa-
ter is drunk. The urine diminishes very much and contains in ch solid con-
stituents, if violent sweating or diarrhoea carry off a considerable quantity of fluids from the body, and if, as in dropsy, a great quantity of fluid be deposited into the cellular tissue or into the cavities of the body. The composition of the urine also varies very considerably in diseases, on which subject, however, but few investigations have been made. Thus, for in-
stance, in paralysis proceeding from the brain or spinal cord, we frequently find urine with an alkaline reaction; in diabetes mellitus it is found to con-
tain sugar; in dropsy it often contains albumen; in gout and rheumatism uric acid and urate of ammonia in great quantity.

Most articles of the materia medica also change the urinary secretion in a very high degree, as well, with respect to quantity, as to its composition. They produce these changes partly by acting on other organs as it were an-
tagondically, as purgatives for example, partly by a direct action on the kidneys, as saline medicines, and partly by producing a change in the blood. Some diminish the urinary secretion, as purgatives, opium, &c., others in-
crease it, and thence are called diuretics. The changes in the composition have been scarcely at all investigated, and we only know that many medi-
cinal substances are again found in the urine, (salts, colouring matter, &c.) and that others change its odour (turpentine, asparagus, &c.)

Those medicinal substances which increase the quantity of the urine, yield thereby a urine which is deficient in solid constituents, and which ac-
cordingly has a less specific gravity than before. This is frequently antici-
pated, in as much as such urine generally continues clear on cooling, though this opinion is not confirmed by experiment. In diabetes the urine is often very clear, and yet not unfrequently it has a very great specific gravity. Accordingly the conclusion is by no means correct in every instance, that a clear urine is less concentrated, than a urine which, on cooling, yields a pre-
cipitate. The uric acid, for instance, which is very scantily soluble in water, falls to the bottom on the cooling of the urine, as soon as it is secreted from the blood in greater quantity, without the urine still being of a great specific gravity.

For the investigation of these facts I have collected some observations made on dropsical patients, and though several salts were present, I con-
stantly found that the specific gravity of the urine is diminished, if its quantity be increased. In one case the urine was of the specific gravity, 1.022, and on the following day, after 15 grains of carbonate of potassa in solution were
taken every three hours, its specific gravity fell to 1.01. The quantity of the urine secreted was at this time increased to about double. In the other cases, this difference, though less palpable, was still evident. We possess similar results with respect to other secretions: thus in the case of salivation by mercury, the specific gravity of the saliva is diminished to 1,0021—1,0038 (instead of 1,0032—1,0088). It is probable that every secretion, which becomes more copiously secreted than before, in consequence of the employment of a medicinal substance, also becomes poorer in solid constituents than before. The secretions of the intestinal mucous membrane are always rendered very watery after large doses of purgatives. The differences which the individual articles present, have not as yet been investigated. This increased secretion of urine with a small proportion of solid constituents by means of diuretics, and consequently of less specific gravity than the blood, is a fact, which, as I shall presently shew, is of considerable importance. Investigations on the changes in the relative quantity of the constituents of the urine by diuretics we do not possess. In salivation after the use of mercury the relative quantity of the constituents of the saliva is essentially changed; the quantity of the salts has increased, while that of the salivary material has become less. On the appearance of new substances in the urine after the use of diuretics we possess no facts, only some few conjectures; thus, during the use of turpentine, we find the urine of a peculiar odour. Those medicinal substances, which are easily found in small quantity in solution with organic substances, are also found again in the urine, as the salts for instance. The other substances are not detected in the urine.

Diuretic medicines are very various. We have medicines, which in a healthy individual produce an increased urinary secretion by increasing the action of the kidneys, (diuretic properly so called). Other medicinal substances, on the contrary, produce their diuretic effect by removing the cause of the diminished urinary secretion, (diuretics in a therapeutical sense); the increased secretion in this case is only an adventitious result. Water itself increases the secretion of urine, as it must be constantly removed again through the skin, lungs, intestinal canal, and kidneys.

1. **Diuretics whose Physiological Action is to produce an increased Secretion of Urine.**

These occasion a more copious secretion of urine than existed previously, if there be a sufficient quantity of fluid in the body. If the kidneys be the seat of irritation or inflammation, these increase it, and inflammation is even occasioned by violent diuretics.

To these belong:—

1. **Acrid Diuretics**—which act directly on the kidneys. Inflammation of the kidneys is increased by them. We observe, in many instances, strangury and the secretion of bloody urine produced, in some cases, inflammation of the bladder and of the kidneys, if these medicines be persevered in and given in large doses. Those substances produce inflammation externally only in those parts to which they are directly applied, but no where else.—To these belong cantharides, squill root, colchicum seeds and root, mustard seeds, Mezereon bark, &c.

2. **Stimulating Diuretics.** These excite all the functions more or less. The accelleration of the circulation is here of great influence, because in a given time a greater quantity of blood is sent to the kidneys than before. But stimulating medicines act directly also on the kidneys, because small doses of them, which are followed by an almost imperceptible accelleration of the circulation, manifestly increase an inflammation of the kidneys.—This excitation is the more violent, the more closely the exciting substan-
ces approximate to acrid substances, as for instance, turpentine. To this class belong alcohol, ether, the stimulating ethereal oils and resins, balsams, &c. and consequently all medicinal substances which contain these ingredients as active principles.

3. Saline and Alkaline Diuretics. These substances act at one time by changing the mass of blood, as I shall shew presently, and secondly also by directly exciting the kidneys. No inflammation is excited by these, but one already existing is exasperated by them. They act here in the same way as they act on the first place of contact (the stomach, wounds, &c.) where they increase the secretion, without producing similar phenomena in the course of the circulation, whilst at the same time they produce even an antiphlogistic effect. To these belong potass and soda, and their combinations with strong and weak acids, &c.

These diuretic substances act directly on the kidneys, after being absorbed and taken into the mass of blood. The proofs are as follows:

a. The neutral salts and alkaline substances we can find again in the urine. The acid is frequently changed, but the base continues. After the use of alkaline substances the urine very soon becomes alkaline. We find that a given quantity of urine contains much more of these salts than an equal quantity of blood. The acrid and stimulating substances have not yet been detected in the urine by chemical examination, for the peculiar odour of the urine occasioned by the use of oil of turpentine is no proof of the presence of the latter, but merely points out a change in the urine.

b. The degree of local actions bears no proportion to the increase of the diuresis. After large doses of acrid medicines vomiting and purging take place, and even inflammation may follow: the local action is accordingly very considerable, but the medicinal substance is soon evacuated again, and therefore cannot be absorbed; consequently either no increased diuresis follows, or at least a diuresis very slightly increased. If, on the contrary, the substance be administered in doses so regulated, that its local action is not too violent, and that it continues for a sufficient length of time in contact with the intestinal mucous membrane, so as to become absorbed, it then acts most violently on the kidneys. The same may be said of stimulating, saline, and alkaline diuretics, which act most powerfully, when the local action is not too great. Accordingly we cannot explain the diuretic action sympathetically through local irritation of the intestinal canal.

c. The time after which the increased diuresis commences corresponds with the time in which absorption can follow. All sympathetic phenomena are observed instantaneously; and hence, if these substances acted in this way, the increased diuresis should also take place immediately. But this does not follow till a later period; often not till after the lapse of several hours, in which time absorption may take place.

d. The same series of changes which these substances produce in the intestinal canal on wounds, &c., we all find produced in the kidneys, if they be given in a sufficient, but not in too large a quantity. Cantharides produce inflammation on the epidermis in wounds, in the stomach, &c., and by the continued administration of large doses of this substance, inflammation of the bladder and kidneys also takes place. The stimulating diuretic substances increase inflammation in the stomach, &c., and exasperate inflammation in the kidneys. The salts which can be detected in the urine by chemical examination, act in a manner so as to increase the inflammation in the first place of contact, and after absorption in the kidneys, so as to diminish, on the contrary, the inflammation, which makes its appearance in other organs.

The principle on which these substances increase the urinary secretion, and the manner in which the effect is brought about we know not. We only know that the salts are secreted with the urine in a more concentrated
form than they exist in the blood, and that the direct action of the other substances on the kidneys can be shown with the greatest probability. This is what is called a specific action.

In morbid deposition of serum in the meshes of the cellular tissue, or in the different cavities of the body, as in dropsy, absorption of the serum, and the cure of the disease, frequently take place simultaneously with increased diuresis after the employment of these diuretic substances. The diseases which depend upon an acrimony of the blood, are often relieved and cured by these substances; to this class of diseases may be referred cutaneous eruptions, &c.

The cure of dropsy, by these substances, has been generally accounted for in such a way, as that a specific action on the lymphatic vessels has been assigned to them, and this action was derived from a power inherent in them of promoting absorption. No substance has been proved to possess such specific action on these vessels; but the increase of absorption is probably owing to a change effected in the blood.

According to our present knowledge of absorption, and considering all the phenomena presented by the increased diuresis through the medium of the substances now mentioned, the absorption of the serum in dropsies, and the cure of these diseases may be explained in the following manner. The first momentum is the stimulation of the kidneys, and the secretion of a urine deficient in solid constituents. If we now compare the composition and specific gravity of this urine with those of the blood, the blood must necessarily become richer in solid constituents, inasmuch as it possesses much more of these ingredients than the urine secreted. But in consequence of this, the blood has a greater affinity for fluids than before, just as we see that violent thirst is occasioned, if much water be abstracted from the body by excessive cutaneous perspiration. In the same manner absorption is caused here by the increased attraction of the blood for serum. A similar physical phenomenon is observed, if a glass tube, open at both ends, be closed at one end with a membrane, and be half filled with a concentrated solution of a salt, and be immersed to this depth in pure water, the concentrated solution attracts the water through the membrane, and rises in the glass tube.

For the cure of those diseases by means of diuretics, which are said to depend on acrimony, some have endeavored to account by ascribing to these medicines a power of producing a change in the blood. But this is not proved in such a way as to enable us to explain any thing with certainty. It is much more probable that these acrimonious admixtures with the blood, if they really are the occasion of these diseases, are removed along with the urine, in consequence of the action of the kidneys being called forth.

Analogy is also in favor of this explanation, as these same diseases are cured by cathartics, which produce an irritation of the intestinal canal, and thereby an increased secretion of its mucous membrane. In the same manner as diuretics increase the secretion of the kidneys, discharges of fluid take place in the latter case. Purgatives neither sympathetically, nor directly on the lymphatic vessels, but by exciting the secretion of the intestinal canal, and separating a watery fluid from the blood.

II. DIURETICS WHOSE THERAPEUTIC ACTION OCCASIONS AN INCREASED SECRETION OF URINE.

The diuretic means which call forth an increased secretion of urine in disease are very various. Every means which can remove the cause of a diminished urinary secretion belongs to this head.

The abstraction of blood by venesection, leeches, &c., bring about a more copious secretion of urine, if an inflammation of the kidneys be present, if inflammation of other parts, or an inflammatory fever be followed by a scan-
ty secretion of urine. By this means the inflammation, which was the cause of the diminished secretion of urine, is put a stop to.

Neutral salts, and alkalies also, produce a more copious secretion of urine. In the case of inflammation, the cause of the diminished diuresis is checked by these means, if the inflammation has not its seat in the intestinal canal and kidneys. In impeded circulation, occasioned by intumescence, or other morbid states of the liver, spleen, and other organs, dropsy and a diminished secretion of the urine occur. Many of these causes of impeded circulation are curable by the means just mentioned, and with the removal of the cause the serum is again taken up by the vessels. They here act as resolvents.

Temperate remedies (acida vegetabilia) act diuretically in inflammations, by their mitigating the symptoms of inflammation.

Emollients obviously occasion an increased diuresis in inflammation of the kidneys. They mitigate the inflammation, and thereby increase the secretion of urine.

Tonics also increase diuresis. In consequence of an atony of the solids, which atony coincides more or less with a blood poor in solid constituents, dropsy takes place. This dropsy is removed by the digestive functions being strengthened so as to form more blood, and blood of a good quality (by bit ters, bark, iron, &c.), and so as to increase the tone of the tissues (by iron, bark, and other astringents.) By these means the cause of the dropsy, viz. the defective formation of blood and the atony of the tissues is removed.

Digitalis possesses the peculiar property of lessening the heart’s action, of bringing down the pulse from 80 to 60 or 50, &c., and of diminishing the strength of the pulse, whereby it sets the kidneys to work simultaneously as an active remedy. Accordingly, if the dropsy is a consequence of an enlargement or hyperthropy of the left ventricle, digitalis mitigates the violent action of the heart thereby produced, and the dropsy disappears for some time; but this does not cure the heart disease, and the dropsy accordingly returns. By lessening the heart’s action, retarding the circulation, and by directly increasing the urinary secretion, digitalis is also useful in inflammatory dropsy, more especially if exudation impedes or has already occurred, and the inflammation be first broken down by venesection, &c.

The acrid (scharfen) medicines are diuretic, if the diminished urinary secretion is a consequence of torpor of the kidneys. Whether it results from paralysis depending on the brain and spinal cord, can only be conjectured, but not known with certainty.

Stimulating remedies increase the diminished urinary secretion in the same case, and especially in deficient activity of the circulation. The dropsy is seldom cured by these means alone, as in torpor of the kidneys acrid remedies are to be preferred; and dropsy very seldom occurs in consequence of the heart’s inaction, without organic disease. But these remedies are of the utmost importance when the morbid matter exists in the blood, keeps up the disease, and is not eliminated. They accelerate the circulation, direct more blood to the kidneys in a given time, to the skin also, &c., and call into action at the same time the functions of those organs. Accordingly, copious secretions often follow the employment of these means, crises take place, and stimulants may, therefore, in such cases, become tonic remedies, &c., by removing the cause which interferes with the action of the kidneys.

Antispasmodics are just as various as the causes of spasm. Almost all medicines may act as antispasmodics under certain circumstances, but some pre-eminently so, in primary spasmotic diseases of an entirely different kind, as narcotics, for instance, and those with which we are able to produce a powerful counter-irritation. If the diminished urinary secretion be a consequence of spasm, the antispasmodic medicine is, in a therapeutical point of view, a diuretic. Thus we often see an increased diuresis occur in consequence of an emetic, and that either in consequence of the general counter-irritation, or of the general shock and excitement given to the system by
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this means. In this way opium, which in healthy persons diminishes the urinary secretion, may, by removing spasm, call forth a more copious secretion of urine.

If from this point of view, we consider the action of those remedies which are followed by an increased urinary secretion in dropsy, we must next turn our attention to the primary affection, which is followed by dropsy as a symptom in the progress of the disease. If we connect both these series of facts, with our present experience at the sick bed, we may then consider the following points as established.

The dropsy, which is a consequence of a so-called inactivity of the kidneys, or of a diminished secretion from the skin, &c., is diminished or cured by those remedies which directly excite the action of the kidneys. In the first case, the cause of the disease is removed; in the latter, the increased inactivity in the kidneys takes on the function of the skin, &c., and there then remains for us the problem of regulating the function of the skin, which is more easily accomplished, if the accumulation of water is first stopped.

The dropsy, which is a consequence of a structural change in the kidneys, is but seldom cured. The diagnosis is frequently uncertain, and, above all, the kind of structural change for the most part continues unknown to us till death. Medullary sarcoma, and similar organic diseases of the kidneys are at present still incurable. The structural change, which Bright, and subsequently Gregory, Christison and Osborne, have detected in the kidneys, appears to be increased by acrid, stimulating and saline diuretics, and to require partly the abstraction of blood, partly purgatives, as well as careful attention to the cutaneous transpiration.

The dropsy, which is a consequence of an impeded circulation, is cured by removing the cause of the latter. A tumor (Balggeschwulst), &c., may create oedema by pressure on the veins, and in such a case the oedema disappears with the removal of the tumor. Tumors of the liver, spleen, &c., depositions in these organs, and degeneration of them, impede the return of the blood, and in this way may occasion dropsy. If these depositions and swellings be still resolvable, the dropsy may be removed by neutral salts and alkaline remedies, which act on these organs by changing the mass of blood. What are called obstructions in the liver, spleen, in the portal system, and in the lymphatic vessels, are often removed by these resolvents, often cured by promoting the secretions of the liver and capillary vessels of the intestinal mucous membrane (cathartics in small and large doses). But incurable degenerations often occasion the dropsy, by impeding the return of the blood, and in such a case no remedy cures the dropsy.

The dropsy, which is the consequence of inflammation, as hydrothorax after pleuritis, is removed by those means which mitigate or remove inflammation, whether by a change in the composition of the blood, or by retarding the circulation, and which have a solvent action on the effusion, if it is no longer fluid, and at the same time effect an increased diuresis. To these belong bloodletting, the neutral salts, and alkaline remedies, which diminish inflammation by changing the blood, and at the same time act on the exudation. Mascagni showed that carbonate of potas dissolves the solid exudation in pleuritis, and accordingly this remedy is employed with the best results when auscultation and percussion have detected an effusion into the thoracic cavity. To this class also belongs digitalis, in as far as it retards the circulation and excites the action of the kidneys.

The dropsy, which is a consequence of atony, depends on a deficient formation of blood, and insufficient contractility of the tissues, which are not properly nourished. In such a case the digestive powers are to be strengthened by bitters, quinine, iron, &c. and from mere bitters the change may be made to astringent remedies. Herewith the removal of the cause, the dropsy, which is but a symptom, disappears.

The dropsy, which is a consequence of dilatation and hyperthropy of the
left ventricle, is often removed for a considerable time, but again returns. By bloodletting, should plethora exist at the same time, a temporary improvement is effected, and by the use of digitalis, which diminishes the abnormal energy of the heart’s action, the dropsy, if it have not gone too far, is often removed for some time, but returns, if the effect of the remedy has ceased for any length of time. The cause of the dropsy is in this case suspended for a long time by diminishing the heart’s action, but the hypertrophy is not cured thereby.

If the cause of the dropsy, or rather the primary disease, is not to be detected, several modes of treatment are employed, according to the view which the physician adopts in determining the casual relation.

If the case be one of hydrops saccatus, those remedies are seldom of use, and a rational line of treatment, verified by experience, has not been yet established.

If the effusion (as, for instance, into the pleura) be no longer fluid, and the serous membrane be at the same time very much affected, these means are sometimes of use after paracentesis, but seldom effect a perfect cure. Saline and alkaline remedies hitherto proved most serviceable in these cases, and that in the two-fold relation, as diuretics in the more limited sense of the word, and as resolvents.

Causes which retard the consolidation of fractures. The Archives Générales for August, contains an interesting article on this subject, by M. Louis Fleury.—Two indications must be fulfilled, observes M. F., to insure the perfect consolidation of fractures: 1st. Placing the broken ends in contact. 2nd. The maintaining them in this position. The former is done with facility, but there are some difficulties in accomplishing the latter. At the present day, most surgeons are of opinion, that complete immobility of a fractured limb, joined to strong pressure on the soft parts, are the best means of maintaining the fragments in position, and of obtaining a quick and regular consolidation. Unfortunately, these means are frequently unsuccessful; and notwithstanding the care used in their application, the callus is frequently thrown out in an irregular manner, or perhaps never formed at all. What, then, are the causes which prevent or retard the consolidation of a fracture? Authors have enumerated a great number, but seem to have overlooked a very important one. Scrofulous and venereal affections—old age—rents in the periosteum—formation of pus—cold applications—all, undoubtedly, exercise a prejudicial influence. But, by far the most frequent of all the causes, is the apparatus used with the view of favoring the consolidation, which it prevents by the compression it exercises upon the vessels of the limb; whether this compression is inevitable, as in the moveable apparatus, or produced voluntarily by the surgeon.

If a fractured thigh be placed in a thick layer of soft materials, the effects of the compression cannot be very appreciable; for, in this case, although the capillary circulation and the small arterial branches are more or less restricted, still the large vessels continue free. The same does not occur in the forearm or leg, where compression, ever so slight, interrupts the course of the blood, not only in the superficial vessels, but also in those which supply the fractured bone and periosteum. In order to obtain a rapid and regular consolidation, we must be careful not to apply more splints than are absolutely necessary, and not to bind these too tight by bandages. In following an opposite method, we wait, sometimes, three, four, or six months, for a union which has not yet commenced. It is then that the surgeon, eager at each dressing to re-apply the apparatus, with more care, that is to say, to augment the number of splints, surrounds the limb more exactly, &c. finds himself deceived; and the more he renews his efforts, by the same means, the greater is the distance separating him from his object.
The following case, one of four reported, exemplifies the beneficial results of this practice.

Case. C. D. aged 41 years, had a fall on the 15th February, 1836, broke his right leg, and entered the same day the Hospital of St. Louis. The fracture was complete, situated immediately above the internal malleolus, and complicated with a deep excoriation and extensive ecchymosis. The wound was dressed with cerate, the rest of the leg covered with charpie dipped in the white of egg, and the ordinary apparatus for fractures of the leg immediately applied. The member was maintained in absolute repose during six weeks. On the 10th of April, the apparatus was removed, the wound was found cicatrized; the ecchymosis had disappeared, but the consolidation had not commenced. The apparatus was re-applied, but a more generous diet ordered. On the 30th April, the consolidation was a little more advanced. The splints and anterior cushions were then removed, and the limb sprinkled with spirits of camphor. From this period the callus rapidly solidified; by the end of the month of May, it was very resistant, almost inappreciable to the touch, and the patient quitted the hospital.

Every reflecting and reasoning man will acknowledge the importance of the point urged by M. Fleury, in the above observations on the consolidation of fractures. It is a lesson taught early in the physiology of growth and development of parts, and of the perpetuation of the same. It is taught in all surgery, and also especially in the anatomy of those parts of the osseous system which have been the seat of fracture, in which the bones are more or less enlarged, &c. All these are effected by vascular action—the plastic agency of the arteries in depositing suitable nutrition, and the conservative efficacy of venous and other absorption. Few and simple indeed are the indications in the case of a fracture of bone. They are adjustment of the fragments, and the retention of that adjustment. But these alone, could no more effect re-union than the juxtaposition of two pieces of tin, without the intervention of solder and heat. This can only be done by vascular action appropriating materials by which growth is to be effected. But inasmuch as the circulating current always contains parts unsuited to new and healthy growth, this purpose cannot be accomplished by the plastic power of the arteries alone, as absorption must go on at the point, or increasing disease will result as an unavoidable consequence. It is, therefore, that it is indispensable to the well-doing of a fractured bone, that the dressing and treatment of fracture should be influenced and regulated by the several purposes. of 1st. preventing further wounding and consequent irritation of the soft parts by the fragments of bone. This is done by a proper adjustment of the fragments, and the prompt preservation of that adjustment. This at the same time effectually secures 2nd, the capability of being united by the powers calculated to effect it in the part; that is, the fragments are kept in reach, so to speak, of the uniting process. 3rd. That freedom and that action of the vessels of the part which is necessary for effecting healthy growth and union. This should of course be done by some ar-
rangement for preserving adjustment, whereby the vascular organ-
ization shall not have its functions impeded. This is the
subject of enquiry presented by M. Fleury in the foregoing in-
vestigations. His observations are valuable. But we are not a
little surprised at the fact, that a practice advanced on a former
occasion, in this Journal, * should have been so perfectly disre-
garded by the profession. We allude to the treatment of frac-
tures of the os femoris by weight and fulcrum; a practice amply
tested by our own experience in a number of such cases as were
best calculated to test its peculiar efficacy and desirableness.
If the reader will take the trouble to turn to our account of this
plan of treatment, as referred to above, he will find that in addi-
tion to its other most unavoidable claims on our preference, it is
peculiarly adopted to the purpose of preserving the freedom of
vascular intercourse. To this it is, doubtless, largely, if not
mainly indebted for its peculiarly complete and prompt effica-
cy. It is applicable to some other fractures as well as those of
the os femoris. The point next in importance, after the fulfil-
ment of the above indications, is the comfort of the patient during
the tedious process of union. By the management just alluded
to this is more effectually secured, than by any other which has
been adopted by surgeons, as there is, in no case, a pressure
equal to more than one and a half or two pounds weight neces-
sary. We are well assured no surgeon will, after once fairly
testing it, refuse to give it the preference to any other plan of
treatment, in all those fractures to which it can be applied.

Spermatocele, or Varicocele of the Spermatic Cord.—The fol-
lowing interesting remarks, by Sir Astley Cooper, have been
extracted from Guy’s Hospital Reports, for April, 1838, and re-
published in the American Journal of the Medical Sciences.
They will be found interesting in relation to a disease, which,
though not of very frequent occurrence, has offered much per-
plexity to the practitioner.

In general this affection produces only inconvenience to the patient, and
the plan of treatment then consists in supporting the part; and Sir Ashley
recommends that this be “effected by applying a suspensory sling, with two
tapes sufficiently long to encircle the abdomen. The sling receives the
scrotum and testis; and the tapes passed around the abdomen, and tied in
front, secure the parts in an elevated position. No straps should be placed
beneath, to pass between the thighs; as they draw back, rather than elevate
the scrotum and swelling.

“As the parts should be kept as cool as possible, the material of the sling
should be an open silk net, which allows the escape of heat, and prevents a
relaxing perspiration. From this support the patient derives great relief;
and the application of an evaporating lotion of spirits-of-wine and water re-

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lieves him still more. A very good lotion for this purpose consists of aluminis 5 i. aqua 3 xi, spiritus vini 3 i.; but the lotion should be as much as possible devoid of smell, as it leads to the suspicion of some infirmit.

"Washing two or three times a day with cold water, with salt dissolved in it, is useful; and the employment of the shower bath, or common cold bath, by constringing the scrotum, prevents the increase of the complaint.

"The dress should be as light as possible, to prevent the production of superfluous heat, and to permit its escape; and all tight dress around the abdomen is to be avoided, to allow of the free return of the venous blood from the testis. Still, however, these means leave the patient with the badge of his infirmit, from his continuing to wear his bandage; and attempts have been made to relieve him, by exciting inflammation and thickening of the scrotum, and thus to render it a better support to the testes. I have applied the pyroigneous acid for this purpose; but the pain which it excited was severe, and the good effect only temporary. I have also employed blisters with the same view, and with the same effect.

"It has been advised to draw the scrotum through a ring, and fix it there, the person continuing to wear it; but, as it may be readily believed, this has no advantage over the use of the sling-support; and is a much greater annoyance to the patient's feelings, either than the disease itself, or the bandage which he is usually called upon to wear."

There are cases, however, in which this complaint produces so much pain and distress, as to render it absolutely necessary to do something more than is generally advised. Sir Astley has seen, in the course of his practice, many persons suffer so severely in mind and body from it, that they would readily submit to any operation which was not attended with danger to life, to obtain relief. As to tying the veins of the spermatic cord—from what he has seen of the dangerous and destructive effect of exciting inflammation in veins—he should never propose it; nor does he think, if it were not dangerous that it is founded on proper principles. But in his Work on the Testis, published in the year 1830, he has advised the removal of a portion of the scrotum in the following words:—

"The removal of a portion of the scrotum will lead to a diminution of the veins of the spermatic cord; and it is an operation, in an extreme enlargement accompanied with pain, which might be tried with perfect safety, and is very likely to succeed."

He had, at that time, never performed the operation; and he therefore spoke of the probability of success only: but, aware of its being free from danger, and seeing that it would render the remaining portion of the scrotum a natural bandage, and that a great degree of relaxation of the scrotum also attended this complaint, and that such relaxed portion might be safely and effectually removed, he determined to take some opportunity of performing the operation.

"Beside the advantage of making the scrotum, in its lessened state, a means of support, he observes, it must naturally occur, that the adhesion, excited by the operation of the fascia which covers the cremaster, to the surrounding parts would produce a permanent support, and render a suspensory bandage unnecessary. It might be thought a painful operation, but it is not so, nor does it excite constitutional irritation.

"The mode of performing it is as follows:—The patient being placed in the recumbent posture, the relaxed scrotum is drawn between the fingers; the testis is to be raised to the external ring by an assistant; and then the portion of the scrotum is removed by the knife or knife-scissors—but I prefer the former. Any artery of the scrotum which bleeds is to be tied; and a suture is then made, to bring the edges of the diminished scrotum together. The patient should be kept for a few hours in the recumbent posture, to prevent any tendency to bleeding; and then a suspensory bag is to be applied, to press the testis upwards, and to glue the scrotum to the surface.
"The only difficulty, in the operation of removing the scrotum by excision, is in ascertaining the proper quantity to be removed; but it adds but little to the pain if a second portion be taken away, if the first does not make sufficient pressure on the spermatic cord. It is of no use to remove a small portion of the scrotum, for from doing this I have failed. When the wound has healed, the varicocele is lessened, but not always entirely removed; but the pain and distressing sensations cease, if sufficient of the scrotum be removed."

"In making the suture in the scrotum, its lower part is to be brought up towards the abdominal ring, to raise and support the testis; as does the suspensory sling when it is worn."

The following cases are given in which the operation was performed.

"Case I. Mr. Rees, surgeon, of Blackfriars Road, sent me a patient of his, who had a large varicocele on the left side, with a very relaxed scrotum. He suffered severely from uneasiness in the spermatic cord and in the loins, a sense of weight and oppression in the region of the stomach, and excessive mental depression. On the 18th of February, 1851, I removed a large portion of the scrotum; and opposed the fascia covering the cremaster, and the testis in its envelopes. By three sutures, the edges of the scrotum were approximated, and the wound quickly healed; and he, on the 9th of March afterwards, quitted London."

This gentleman was 32 years of age. The portion of the scrotum removed, when extended, measured four inches in length; and in breadth, in the middle, two inches and a half. He left London quite well, and some time afterwards, Sir Astley learned from Mr. Webster that the patient was able to ride fifty miles a day without inconvenience.

"Case II. Mr. S—, aged 30, has had a spermatocele three years and a half, attended with a great sense of uneasiness in the part, and a dull heavy pain in the spermatic cord and loin on that side. My assistant, Mr. Balderson, held the scrotum between his fingers, and I removed all that could be easily elevated from the testis and its coverings, which are necessarily exposed in the operation. I then brought the integuments together by sutures, so as to close the wound completely; but I previously secured some small bleeding arteries. He was ordered to keep himself cool, and to remain in the recumbent posture; and the part was placed in a suspensory sling; however, the next morning he went down to breakfast; but this imprudence did not prevent his quick recovery from the operation, with the result of which he was highly pleased. The varicose veins are greatly reduced: the coverings of the testis adhere to the upper part of the scrotum. He soon gave up the use of the sling-support; and lost the pain in the spermatic cord and loins, which he had previously sustained.

Case III. H. B., aged 18 years, had a spermatocele upon the left side, from the age of fourteen. At fifteen he fell across an iron bar, which greatly hurt him; and he thought the complaint had quickly increased after that time. He suffered much from pain in the testis, more especially in walking, and from uneasiness in the groin, spermatic cord, and the spineous process of the ilium and loins. He consulted several medical men, who told him his complaint was a hernia. But he was then recommended to Mr. Taunton, in Hatton Garden, who informed him it was a varicocele; and the scrotum was directed to be supported, and an evaporating lotion to be used.

"On July 20, 1837, I removed a large portion of the relaxed scrotum which covered the swelling, in the presence of Mr. James Babington; secured some small arteries; and then used four sutures to approximate the edges of the scrotum. He was sent from my house, in a coach, to Chelsea, after the operation, and the scrotum very soon healed, and the uneasy sensation in the part vanished."

"Case IV. Mr. John K—, aged 25, four months ago found the scrotum enlarged on the left side, with occasional pain in the part, which darted
upwards to the external abdominal ring. It gradually increased, until it was three times larger than the right side of the scrotum, became more painful, and occasioned much depression of spirits. On the 15th October, 1837, I removed a portion of the scrotum, by passing a needle and thread through it in three different places, and cutting away the scrotum beyond them. This plan did not facilitate the operation, and made the tying of the arteries more difficult; but it succeeded in relieving the disease."

A case is also given, communicated by Mr. Key.

In one case Sir Astley raised the scrotum, and placed a ligature around the part which he designed to remove, drawing the thread quite tight: but it produced a great deal of pain; the part sloughed with considerable constitutional irritation, and after a great length of time, and with more suffering than the complaint justifies.

It must be distinctly understood that the removal of a portion of the scrotum is recommended in those cases only of spermatocele, in which the patient suffers great local pain; in cases in which he is most urgent to have the swelling and deformity of the part removed; and more especially in those instances in which the function of digestion suffers, and there is a great degree of nervousness and of mental depression. For slighter cases, a suspensory bandage must be still recommended.

On the Resection of the Facial Bones. By Professor Dieffenebach, of Berlin.—The resection of degenerated bones of the face, or the excision of tumours situated between them, belongs to the class of the most formidable operations. It is only in modern times that these operations have been performed to any great extent, and to Professor Saeger, at Erlangen, belongs especially the great merit, not only of having zealously collected all that had been done in this respect, but of having recommended the resection of diseased bones in a great many cases, and having executed himself a variety of the most important and ingenious operations of this kind. I add to his rich experience some cases from my own observation, the number of which, however, is not great, as I began to attempt the extirpation of diseased parts of the upper jaw, and other facial bones, only a few years since, though I had performed, long before, the resection of other bones. Some minor ressections of the alveolar process met with success, and gave me confidence for greater operations, in which the success I met with was no less satisfactory.

Case I. The first patient from whom I removed an osteosarcomatous degeneration of part of the alveolar process, was a man 38 years of age. There was a fungous softening, of the size of a small hazel-nut, on the alveolar process of the left side, which surrounded the small incisor. The tooth was loose in the fungous mass, and blood oozed at its sides. I excised with a small saw the diseased part of the bone, in the form of a wedge, and touched the remaining bones with the incandescent iron. Some splinters of the bones having afterwards exfoliated, the wound furnished healthy granulations. In six weeks the depression having greatly diminished in its size, was covered with a smooth scar, and the man was cured without relapse.

Case II. I resected from a woman 38 years of age, who likewise suffered with an osteosarcoma of the alveolar process, which had attained the size of a walnut in the space of a year, the alveolar process, with one molar, one eye tooth, and one incisor. In this case, also, I made use of the incandescent iron after the operation, for the purpose both of stopping bleeding and procuring exfoliation. After two months the cure was complete, and no relapse followed.

Case III. I excised, from a woman 46 years of age, on account of an osteosarcoma, of the size of a walnut, a part of the upper jaw, containing two incisors, and the left eye-tooth. The incandescent iron having been used,
afterwards some fragments of bone were exfoliated, and the cure followed with a smooth cicatric.

Case IV. A lady, 46 years of age, was afflicted with a hard dark-blue sarcoma, which originated by degrees, and surrounded the roots of two incisors. I excised the morbid part of the bone, and touched the wound with the iron. The operation was successful, and no relapse followed.

Case V. A delicate young woman, 24 years old, had been suffering for three or four months under an osteosarcoma of the size of a large walnut. It occupied the place of three teeth. I resected it in the form of a wedge as high as the antrum highmorium, and along the hard palate, on account of the bones there being found softened. The incandescent iron was applied to the wound, and the cure was complete in six weeks. The case is a recent one, and no relapse has yet followed.

Case VI. A young, delicate, fair girl, 24 years of age, suffered under a softening of the alveolar process of the upper jaw, which was developed in the space of a year. She had used, in vain, many external and internal remedies; a loose molar tooth had been extracted, the surrounding parts of the fungous substance excised; the surface of the wound was burned, but without success. The progress of the disease was only the more rapid, and was about to affect the zygomatic bone. The teeth projected only by the upper part of the crown from the fungous mass, which was especially developed towards the roof of the mouth. In seizing them with the fingers they felt loose, and the blood oozed out at their sides. Without dividing the external parts of the face, I resected in this case the whole left alveolar process to the incisors, passing with a small saw through the healthy bone, and stopped the strong bleeding by the incandescent iron. Some fragments of bone were afterwards thrown off by exfoliation, and the granulation was healthy in every part, and in five weeks the young girl was perfectly cured, and without any external disfiguration. In consequence of the operation she became flourishing and healthy, and still continues so, though a year has elapsed since the operation.

Case VII. Mad. B., a lady 55 years of age, suffered for a year under a fungous softening of the greater part of the alveolar process of the upper jaw, especially affecting the anterior part of its margin. She had been treated by several physicians, by internal and external remedies, and the loose teeth had been extracted one after the other. After some time, the whole alveolar process was transformed into a thick steatomatous mass, which the upper lip could scarcely cover. After separating the latter from the tumor, and turning it upwards, I removed with the saw the whole alveolar process, as far as it was affected, and touched it then with the incandescent iron. The patient seemed cured after some months, and she recovered gradually from her indisposition. But the cicatrix became again softened and covered with new fungous granulations. They were limited by astringent gargles, the penciling with extr. saturni, and cautery with nitrate of silver; but the bone softened again, and the patient withdrew herself from my care.

Case VIII. A lady, 32 years of age, was affected for several years with a thickening of the left upper jaw, between the wing of the nose and zygomatic bone, produced by an encysted tumour of the bone. I separated, at first, the cheek from the bone, beginning from the mouth, and removed the anterior part of the sac and of the osseous margin. The posterior surface, situated in the bone, was touched with the red hot iron. The cure followed without any other accident.

Case IX. A man 30 years of age, suffered under an apparent intumescence of the hard palate, which existed for several years, and had increased gradually. The tumour was convex, and not unlike a divided egg. I circumcised it with a knife, and removed it. The bones of the palate, which were much pressed upwards, showed on their middle a small hole. I touched the cavity with the incandescent iron. It became filled with granula-

tions; the palate regained its natural appearance, and the articulation, which before was very indistinct, was restored to its former distinctness.

Case X. The lower jaw of a man 60 years of age, was at several places, and for a long period, enormously enlarged, in consequence of hydatid tumours between the external and internal laminae of the lower jaw. At different times these were inflamed, and went into suppuration. I treated them as single abscesses by incisions, by which means the suppuration ceased, and the man became well again. The advanced age of this patient would not allow of a radical excision.

Case XI. A man 33 years of age, who, for several years, had become an object of curiosity, in consequence of an enormous thickening of the left cheek, required my assistance. The cheek projected from the face to the size of two fists. The upper part was hard, the lower elastic, and had been ten or twelve years in attaining this enormous development. I considered it to be an intumescence of the bones of the face, produced by hydatid tumour. I therefore removed from the mouth the part of the tumour which projected into it, and extirpated through this opening a great part of the sac, together with the sharp edges of the bones. A strong suppuration was produced, and, with the beginning of the cicatrization, the cheek, before withered and attenuated, was so much lightened and contracted, that the patient was cured without the least disfiguration.

Case XII. In a man of about 60 years of age, an osteosarcoma of the left zygomatic bone, attended with much pain, had been formed. At last the integuments were perforated, and the osseous fungous became plainly visible. Neither internal medicines nor strong cauteryization and burning had met with any success. I circumcised the diseased part with the knife, and removed, by means of the saw, the greater part of the zygomatic bone. I happened, by separating the neighbouring healthy integument of the face, to be able to cover a great part of the wound. In three months the patient was cured, with only a slight disfiguration. I did not see him again, and heard, accidentally, that he died of dropsy a year afterwards.

Case XIII. In a woman 60 years of age, a long time after the gradual falling out of the molar teeth of the right side of the lower jaw, a tumour had been formed, reaching, by degrees, the size of a fist. It greatly impeded swallowing, respiration, and speaking, and threatened to destroy life in a short time, as it filled the greater part of the cavity of the mouth and throat. The tumour was free above, and below it was situated between the external and internal lamina of the lower jaw, which were separated by it from each other. It was not required to slit the mouth for the operation, on account of the great laxity of the soft parts. During the extirpation, the tumour was drawn forwards by a hooked forceps, and excised with a knife. I removed then, by the saw, the highly projecting edges of the lower jaw, which had been absorbed in the middle portion. The cure followed in a few weeks. A long time after, a fragment of the bone exfoliated.

The tumour was of a fibrous nature, and there was formed on its anterior and superior surface, a hydatid sac, which was filled with a clear albuminous matter.

Case XIV. In the month of August of the year 1832, I was called to see a Hebrew merchant. I found the second molar teeth of the upper jaw surrounded by an osteosarcomatous tumour. I removed the teeth, with part of the alveola, with a saw. Before complete cure, the man departed for his country; the wound cicatrized very soon afterwards. After the lapse of three months, a new fungus grew from the cavity. A clever surgeon extirpated it, and the wound cicatrized again.

In the year 1833, in the month of May, a new fungous growth was extirpated, and the wound was cauterized with the hot iron. It healed, but, in the autumn of that year, another relapse occurred, and a new extirpation
and cauterization were required. For a fortnight afterwards the red-hot iron was repeatedly applied to the fungus.

In spite of these repeated extirpations and applications of the actual cautery, the softening and loosening of the alveolar margin spread over the moiety of the right palatine bone, the nasal process of the upper jaw, and the body of the latter. In order to attack the diseased bone, it was necessary previously to divide the soft part. I slit up the half of the face, from the right inferior margin of the orbit, descending on the side of the nose, and drawing the knife through the upper lip; the lip and cheek were then raised and drawn to one side, and the cartilaginous part of the nose to the other. The diseased bones were then removed by the saw to a considerable depth, and the steatomatous degenerated masses on that side were extirpated with scissors. Upon the margins of the bones I produced a strong effect with the incandescent iron, and concluded the operation by applying many twisted sutures, by means of which I united the divided integuments of the face and the upper lip. The pins were extracted in a few days, when the wound was closely united. In a month the cure proceeded so quickly, that a great part of the wound was filled up by luxuriant granulations, to which a solid cicatrisation followed. The patient seemed to be cured in the third month, but the upper jaw, near the side of the nose, and part of the roof of the mouth, began again to soften and exhibit the re-appearance of the tumour. I extirpated again the diseased parts, and burned the edges of the bone with the red-hot iron. The whole exfoliated, and the cure was complete. The defect of the bones was supplied by an instrument ingeniously contrived by Wallross, with a series of teeth, and a plate for the palate. By this means the patient was enabled to speak with a natural voice. With the exception of a cicatrized line, there was no external disfiguration of the face.

The patient departed to his country, and, after two years, he wrote to me, saying that he was quite well. However, six months later, he apprised me of his disease having returned. He came immediately to Berlin, to subject himself to a new operation, with his wonted fortitude. I found both the old cicatrices of the bones, and the neighboring bones, very voluminous and softened: this was also the case with the left side of the lower jaw; I therefore repeated the last described operation. I made an incision from the orbit to the angle of the mouth, turned the flap, containing the lip and the cheek, to the one side, ordered the assistant to press the nose to the left side, and removed the diseased bones again by means of the saw. I then burned the wound with the red-hot iron. The wound of the face I united by twisted sutures, and this time also, a good and quick union followed. In a few weeks all was cured in the mouth. No external disfiguration was to be observed. The patient departed home, and has continued to enjoy the best health up to the present moment.

Case XV. Mr. G., a strong young man, 22 years of age, was disfigured in such a manner as to prevent his going into society. The left side of the face projected in the size and shape of a large cocoa-nut, and by this tumour the right side was so much displaced, that the nose was thrown far to the left side. The right eye protruded from its socket, on account of a tumour of the size of a hen's egg, on the point of which the eye was situated. The slit of the everted eyelids had the width, and presented the appearance, of the female labia, when drawn from each other. There was, at the same time, a complete entropion of both eyelids. The integuments of the cheek were much strained and attenuated by strong extension, and covered above with numerous varicose veins. The upper and lower tumours were separated from each other by a deep furrow. The young man, notwithstanding, enjoyed the best health; none of his senses were affected, he could even see with the protruded eye.

It may easily be imagined, that, in this case, many physicians had been
consulted, many medicines used, without stopping the disease. The best surgeons in Germany and France had seen the patient, and treated him with not homoeopathic doses, as he had taken, besides other things, 200 bottles of the decoction of Zittmann,* and had been subjected twice to treatment by hunger and inunctions in all their severity, but as none of these methods had succeeded in checking the degeneration, he had discontinued for two years all further treatment. The degeneration, however, had continued its progress, and had gradually increased in size.

Convinced that internal treatment was of no use, that the tumour was of a fibrous nature, I resolved to perform the operation. I first made an incision, beginning from the external corner of the eye, and descending over the apex of the tumour to the margin of the lower jaw; I then separated the soft parts from the tumours under them, and turned the flaps to both sides. These flaps contained, together with the nose and cheek, the whole lower eyelid, and the deeply contracted fold of the skin, which separated both tumours from each other. I now began to work down below the boundaries of the tumour; I followed it below the extremely protruded zygomatic arch, from thence tracing it over the body of the right upper jaw, I arrived at the base of the cranium, where I found the principal root of the growth, which I separated from the surrounding parts. I separated other roots from out the nasal cavity, to which important ramifications extended. They had dilated the nasal cavity, and pressed down the roof of the mouth, which protruded in a convex shape. I then began the extirpation of the tumour of the orbit. Prolongations passing through the osseous plates of the orbital parietes, connected this tumour with the lower one. It was a difficult undertaking to preserve the eye; but I succeeded in freeing the bulb from all surrounding parts, and in laying bare the optic nerve from the tumour. The tumour was still firmly attached to the orbital parietes; several osseous prolongations, or roots, proceeded from it through the perforated bones; but I succeeded, at last, in becoming master of the whole tumour. The bulb of the eye, with its optic nerve extending like a string at the bottom of the wound, was now, as bare as an anatomical preparation, between my fingers. My friend, Dr. Romberg, so highly esteemed for his researches on nervous diseases, and myself, now tried some experiments on the faculty of vision; we closed the other eye, and wherever we directed the eye, the patient discerned all objects very distinctly. As the bulb was too small for the orbit, there not being any adipose or cellular tissue, I made several coils of the optic nerve upon itself, and brought it into the posterior part of the orbital cavity. I then modelled from the lower eyelid, although enormously enlarged, attenuated, and covered with varicose veins, another one on a smaller scale, united it by fine knotted sutures, and after concluding the operation, I adjusted and secured the large wound of the face by a considerable number of twisted sutures, using, according to the thickness of the edges of the soft parts, thicker or thinner Carlished insect pins.

The eyelids were closed to prevent the prolapse of the eye-ball, and pressed into the ocular cavity with a large soft ball of lint, and by this means they were brought into a gentle connection with the eye.

The patient was subjected to a very strict antiphlogistic treatment; saline laxatives were recommended; he was bled; leaches were often applied in great number to the face, and day and night inunctions with ice-water were made. By this treatment life was at no time in danger; the wounds healed quickly. On the second, third, and fourth day, the sutures were removed, as the margins were united by the first intention. In a few weeks every where in the depth of the wound cicatrization followed. The bulb and the eye-lids projected naturally by new formed cellular tissue, and, at a

* A decoction of sarsaparilla containing corrosive sublimate.
later period, nothing extraordinary could be observed in the young man, except an oblique position of the eye-ball with respect to the slit of the eye-lids, and an obliquity of the cheek, and hanging down of the angles of the mouth, a necessary consequence of the division of the facial nerve.

Two years after the operation, Mr. G. paid me a visit. The paralysis of the cheek was strikingly ameliorated, and the corner of the mouth was much more moveable. The sight of that eye is complete, and even the eye-ball is somewhat moveable, as it follows the motions of the eye-lids.

From this case the idea first suggested itself to me, in all my following operations, where a complete division of the one side of the face might be required, and consequently of the facial nerve, to avoid this by not cutting through the cheek, but perpendicularly through the middle of the face, and, even then, if the operation should be necessary, on the posterior part of the cheek. I therefore resolved, in the next case, to follow exactly the median line of the face, and, after dividing the nose and lips, to turn to one side the soft parts, like a half mask, and then to perform the operation.

This new method proved successful in the three following cases.

Case XVI. Madame H., 51 years of age, often sickly, observed for several years an impediment in the left nasal cavity, and, at last, she could no longer respire through it. It became completely obstructed, and a dark blue tumour was observed in the depth. External and internal remedies had been of no avail.

The patient now applied to me. I found a melanotic fungus filling the left nasal cavity, by which the external parts were much protruded; and upon them several melanotic tumours were observed.

The patient having taken, for some time, the decoction of Zittmann, I extracted all of the fungus that I could reach with the forceps, and removed then a great deal of the steatomatic degenerated mucous membrane of the nose. The turbinated bones of the nose were effected with caries. When the whole of the diseased parts were removed, the cavity was burned with a hot iron, which had the shape of the little finger. The patient underwent a slight antiphlogistic treatment, and she again took, for six weeks, the decoct. Zittmann.

Several months after the operation, all seemed to do well, and the cavity to heal; but the fungus returned; it affected the inner surface of the nasal bone and the upper jaw, especially the nasal process of it; the soft parts swelled, and the protrusion of the fungus was only prevented in some places by the external intemgments.

Three months and a half after the first operation, I performed the second. The soft parts were divided below the forehead, the knife drawing along the back of the nose, and, at last, the upper lip was divided. The parts were separated from their connections; the flaps containing nose, cheek, and lip, were retracted, and the various parts of the osa nasi, with a portion of the degenerated upper jaw, was removed with a saw. I then removed the various and fungous portions of diseased bone which presented themselves in the bottom of the wound; some of the latter were prolonged even as far as the frontal sinuses. And, finally, after having cut off a melanotic part of the external intemgments of the nose, I united the wound by means of a multitude of twisted insect pins, beginning at the forehead and terminating at the upper lip.

The patient was treated on the antiphlogistic plan, and the preparation I delivered to my celebrated friend Johannes Müller. This gentleman saw the patient on the third day almost cured, and on the fourth the whole wound of the face was united by a linear median cicatrix. Up to the present time, a year after the operation, no relapse has followed.

The following case, however, of the resection of the facial bones, on account of a fibrous tumour, is, undoubtedly, of much greater importance.

Case XVII. One day a lady, closely veiled, came to me, desiring to speak
with me alone. She raised the veil, and I imagined I saw before me a pumpkin; I could discern nothing but a large round body, on the one side of which there was a disfigured, distorted face, with a nose pushed to one side; the left ala was enormously extended, and, together with the integuments of the cheek, covered the tumour. The eyelids were likewise greatly extended, and their orifices were oblique; the whole skin was covered with thickly studded varicose veins. The disease had reached this extent by degrees between the 15th and 48th year of her age. I began the operation in this case by dividing the face in the median line, commencing between the eyebrows, which were placed laterally, having been thrown from their natural situation to the position in which otherwise a check only is to be found. Having extended the incision to the nose and upper lip, I made over the root of the nose a transverse incision, parallel with the aperture of the eyelid. I then separated the soft parts, i.e. the moiety of the nose, the lower eyelid, the upper lip, and the cheek from the tumour, near to the ear, and directed this immense flap to be resected.

The extent of the tumour, which projected on all sides, and which was uneven, and of an osseous structure, did not allow me to commence resection from within outwards, and I was forced previously to remove with an amputation saw, a projecting portion of the size of a fist. I was thus enabled to penetrate with a small saw on the side of the nose to the frontal cavity. I then sawed out the greater part of the inferior orbital margin, together with the inferior wall of the orbit. I then resected the zygomatic arch, and sawed in a transverse direction through the upper jaw, so that the alveolar process only remained. After dividing with a knife-saw the deeper situated hard connections, and separating the softer ones with incisors and knife, I was able to elevate the whole mass with strong levers, and I now beheld a large wide cavity. If the appearance of the tumour before the operation was not dissimilar to a pumpkin, it might be easily imagined now, after the operation, that the cavity had the appearance of an excavated one. On the left and right side, with the exception of the parts where the bones were sawed through, the parietes were felt smooth. The lateral wall of the cavity was formed by the inner surface of one-half of the nasal fossae. The posterior limits of it were formed by the perpendicular posterior wall of the pharynx. At last I removed a great portion of the tumour from the frontal sinuses, which were enormously dilated. This was followed by the discharge of a quantity of fetid matter.

After restoring the fainting patient, I united the external incisions by a great number of twisted sutures. The eyelids and their corners were united by fine knotted sutures.

The patient at first received an analeptic medicine; the face was slightly covered; internally some wine was given, until the weakness had somewhat ceased, and on the following day a slight antiphlogistic treatment, corresponding with the constitution, was commenced by giving a solution of potass. The thin deeply withered soft parts became slightly raised, and turgescent on the following day, and on the third day the union was so complete that all the sutures could be removed. In one place only, between the lower eyelid and the nose, did the united flaps open again to about the size of a shilling. But I hoped by a future operation to remedy the accident.

The case did not present any complication, or any thing worthy of notice during its treatment. After a few weeks the patient was able to get up and move about. No paralysis of the face occurred.

Besides several younger physicians, Drs. Jüngken, Berendt, Romberg and Holthoff were present at this operation.

After complete restoration of the patient to health, two things were still to be done with regard to the face, which had become quite straight, viz: to close the opening above mentioned, and to raise up the eyelid, which was somewhat drawn down by the formation of the cicatrix. Through the great
thiness of the skin and absence of the subcutaneous cellular tissue, I completely succeeded in the first object, only after some unsuccessful experiments, by refreshing the edges, and by applying sutures, having rendered the approximation of its edges more easy by means of lateral incisions. In the latter, however, I have not yet fully succeeded. The lady, for the last year, enjoys the best health, enters into society, from which she has been excluded for more than thirty years. Hitherto there is no appearance of relapse: the cavity left by the enormous wound is much diminished. The face is natural, and the muscles, on both sides, are capable of being put into action. The resected and extirpated tumour was of a fibrous nature. The bones appeared partly absorbed, while in part they remained attached to the tumour, as attenuated though healthy plates.

**Case XVIII.** Mr. R. a judge, 30 years old, had observed, for many years, a gradually-increasing swelling of the bones of the left half of his face. There was no great pain, but always a dull sensation of pressure. The nose was pressed to the right, and the left wing was higher than the right, which latter covered part of the globular tumour. The skin of the cheek was bluish red in colour, and was perforated by several fistulous openings. The left nasal bone, the orbital margin, and the zygomatic bone felt softened. In the cavity of the mouth, the alveolar process of the upper jaw, and the whole roof of the mouth were found to be transformed into a osteosarcoma.

The patient had been under the care of able physicians, and had used many of the remedies recommended against diseases of the bones, and lastly, the decoction of Zittmann. The disease, however, had developed itself in spite of treatment, and was about to perforate the whole integuments of the cheek. The patient now determined to come to Berlin.

I commenced the operation by dividing the face from above downwards, the incision passing through the nose and upper lip into the mouth. An upper transverse incision was made into the angle of the eyelids, and the inferior eyelid, the half of the nose, with the cheek, and the whole of the upper lip were separated from the softened bones underneath, until the masseter muscle was freely laid bare. I then commenced the resection, by sawing, at first, through the upper jaw in the direction from below upwards; passing with the saw through the nose, I turned the instrument transversely into the orbital cavity, and removed the greater part of the inferior orbital margin, and of the inferior surface of the orbit. I then sawed through the zygomatic bone, and penetrating into the deep-seated mass, changing sometimes the saw for the knife and scissors, I resected the deeper situated parts of the upper jaw, the whole osseous part of the roof of the mouth to the velum, and the whole alveolar process. Several large cartilaginous portions of the bones, which were not fully softened, were gradually removed, and the parietes of this large cavity were burned with the red-hot iron. The bleeding soon ceased, and I was now able to unite the wound of the face. Twenty sutures were required for this purpose.

The patient was still able to stand after the operation. He was carried to bed, however, and received for refreshment a glass of wine and water. The treatment was slightly antiphlogistic, and as the vital powers appeared to be sinking on the next day, he took an infusion of valerian; however we were soon compelled to return to the use of carbonated waters, Seltzer water, and Saidschütz water, to open the bowels. On the fifth day the whole wound of the face was united, and all the sutures removed, except the inner corner of the eye on account of the extreme thinness of the skin, where an opening remained; but the cure of this will soon be obtained. With a slightly nutrient and strengthening treatment the patient has made such progress, that to-day, twenty eight days after the operation, he walks about in his room: he was able to leave the bed already a fortnight ago.

In most of the cases of osteosarcoma here related, I had already tried an
internal and external treatment, but it never was of any use; the disease proceeded in its development equally during the treatment, often continued for months. Mercury, iodine, gold, and the decoction of Zittmann, were especially the remedies by means of which I hoped to produce a favorable effect; externally I applied the pure extract of lead, and this latter appeared to stop for some time the progress of the degeneration.

In most patients the fungus began from an alveolar process, and extended either to the left or to the right, by affecting the neighbouring alveolus one after the other. The disease seldom spread over both sides from the first affected alveolar process. Extraction of the teeth produced a much quicker development of the disease. I never extracted teeth but the patients came always to me complaining, that immediately after extraction of the teeth the fungous mass grew very quickly.

After the alveolar process had become degenerated in its greater extent, the zygomatic bone generally became affected before the palatine bones. The whole cheek formed an oval hemisphere; the nose was drawn to one side, and the nostril corresponding with the diseased cheek, formed a continuous level with it. Not only in La Charité, but also in my private practice I have already seen a great number of such patients die, notwithstanding they were submitted to judicious treatment up to the moment of death. In some cases the fungous mass penetrated the skin, which previously became brownish-red, and attenuated, and then the red fungous tissue were seen quite denuded. In others a collection of matter was formed in the cheek, which burst and gave issue to a decomposed and stinking fluid. In these cases the fungous sometimes shot out from the parietes of the cavity; the nasal cavity was obstructed with fungoid masses, and the patients expired only through the mouth.

Having had many of these unhappy examples before my eyes I was induced to perform the resection of the bones of the face to a greater extent, more particularly as smaller operations of this kind had always met with success. I generally found a relapse after resection of the bones, of a much rarer occurrence, than after the operation for sarcoma, or fungus in other parts of the body; at least, the disease, in respect to its curability, is much more favourable than carcinoma of the glands. Amongst the remedies calculated to prevent a relapse, I prefer the decoction of Zittmann to all others.

Some of the operations which I have described, are, on account of their great extent, and the success which attended them, not devoid of surgical interest; but their greatest value, in a scientific point of view, is to be found, perhaps, in the fact demonstrated, that by dividing the face along the median line, I have suggested a new method of operating, the effects of which is to prevent the paralysis of one moiety of the face, the infallible consequence of commencing our incisions in the posterior part of the cheek.—Lancet, February 10, 1838.
Part III.—MONTHLY PERISCOPE.

Medical Society of Augusta—Session, 5th Dec. 1838.

The question for discussion this evening was,

Are there any positive evidences known of the presence of gall-stones?

Dr. Robinson read a detailed history of the case of the spontaneous presence of a loose gall-stone, with a minute detail of the symptoms. The case will be found in the first part of this number, and is one of interest.

On a general discussion of the question by the members present, and a detail of all the symptoms observable in those cases wherein gall-stones have been known to pass, or have been found present after death, the general opinion was that there was no unequivocal diagnostic symptoms of the presence of gall-stones in the gall bladder—that the symptoms attending their passage, though more definite, were still not unequivocal; that of these, the violent distress felt at the hepatic or vesicular and the intestinal extremity of the duct, the pulse remaining perfectly unaltered, as directed by Dr. Heberden, is the most decisive; but that this may fail to indicate the fact, by error in the precise location of the distress, and by mistaking neuralgic pain for that which attends the passage of a biliary concretion through the duct.

Other Medical intelligence was then called for, whereon Dr. Bowen stated to the Society, that in an adjoining County his attention had recently been called to a woman about 25 years of age, who had been confined to her bed for two years, on account of a chronic inflammation of the uterus. This alone, however, was not such as to disable her from rising from her bed; but the particular cause of her steady confinement, was the immediate occurrence of violent palpitation of the heart on rising. She had been, a year before, under the care of a regular practitioner, without any benefit. Her color was good, and her complexion fair. Dr. B. desired the opinion of any of the members of the Society, as to the cause of this distressing and confining palpitation. Dr. P. F. Eve asked if he had examined the artery; whereon Dr. B. stated that he had not, having expected soon to see the patient again.

Dr. Antony stated that in females, this palpitation was often distressing, and was very frequently attributable to irritation in the dorsal spine, in consequence of menstrual irregularity, and requested that on his next visit, Dr. B. would explore the whole spine, and particularly the dorsal portion, and report at a future meeting, which he promised to do.
Dr. Bowen stated another case, in which the woman had suffered three abortions very soon after quickening, and was then pregnant at an advanced stage of about five months—that the woman had before suffered from florid album, and bearing-down distress and uneasy sensations in the groins. He had become of the opinion that the former miscarriages had arisen from the difficulty attending the rise of the uterus at that period, from the excavation of the pelvis; and had ordered a recumbent position as steadily as possible, and that she was now nearer the term of nine months than she had been in the former pregnancies, and had prospect of doing well. Dr. B. desired the opinions of gentlemen on this case. Dr. Antony stated that abortions at that period, and a little earlier, were generally attributed to bearing-down, or descensus uteri when not from other palpable causes, and might in almost every case, be prevented by the timely correction of this species of ædoptosis, and the prudent management of the patient subsequently. He further stated, that he had sometimes met with the most serious and distressing symptoms, arising from the failure of the pregnant uterus to arise from the excavation of the pelvis, at the proper time for this movement; but which he had always found relievable by replacement with the hand.

Dr. Kennon then obtained leave to read the following report of a case.

'At the meeting before the last, I stated to the Society, that a case of what has been called "Chigre," had lately come under my observation, and requested the experience of those present in such cases. Dr. Antony stated that he had seen the affection, and had used the mercurial ointment successfully.

The gentleman who was the subject of this affliction, had spent a part of the last summer in Florida, and exhibited several scabs on the upper part of the foot, on the leg, and in the neighbourhood of the anterior spinous process of the ilium. These scabs were about a quarter of an inch thick, irregularly rounded, and varying in size from that of a ten cent piece to that of a quarter of a dollar. They were somewhat inflamed for about half an inch from the edge, and attended with an intolerable itching. He said it began first with itching, then redness, followed by a discharge of matter which dried into a scab. I advised him to dress the parts with a simple poultice, to dissolve the scabs—then to apply mercurial ointment, and cover with a plaster of basilicon. A few days since I met the gentleman, and had the pleasure of being informed by him, that he was completely relieved.

I am informed that this disease is of frequent occurrence in the lower country, and Florida particularly,* and is often very

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* It is common in some parts of the West Indies. Ed.
severe, sometimes rendering amputation indispensable. It is said that the first treatment of the physicians, in those parts where it prevails, is to apply mercurial frictions. On their failure, salivation is resorted to. But when these prove ineffectual, as is sometimes the case from too late application, or subsequent negligence, amputation is resorted to. As intercourse with Florida has become considerable, and is increasing, facts on the subject become more important.

In Johnson's treatise on tropical climates,* we have an account of what is called "Dracunculus," or guinea-worm, which causes an affection somewhat similar to the foregoing; but it is produced by a long worm, instead of an insect similar to the flea.†

On motion of Dr. P. F. Eve, the subject for the prize essay, determined by the previous meeting of the Society, was altered to that of Congestive Fever. The prize will therefore be awarded to the writer of the approved essay "On the pathology and treatment of Congestive Fever." The chief reason for this alteration was, that congestive fever has prevailed extensively, and is still prevailing in some of the adjacent Districts and Counties, and information has been often and anxiously called for from those quarters.

Session, 13th December, 1839.

At the last meeting a committee consisting of Drs. Dugas, P. F. Eve, and Douglass, was appointed to investigate, for the Society, the subject of the "Ligamentum Dentis," which has been recently announced as a new discovery. In the order of business, the report of this committee was called for; whereon the chairman, Dr. Dugas, read a partial report, exhibiting in connexion with the same, two preparations, one of the inferior maxillary of the human, and the other of that of the ox—both of which, exhibited, not "a ligament," but ligamentous fibres, in every direction, connecting the teeth with the circumjacent bone. At the request of the committee, and in order that this subject should be more fully and conclusively investigated, the time for their final report, was extended to the next meeting: which will be the second Wednesday in January, 1839. We hope to give the report of this committee, in full, in our February number. In the mean time, we would here express our surprise at the fact, that although a definitely named ligament has not been before pointed out by anatomists, the necessity of cutting the ligamentous fibres, which secure firmly the teeth in their places, has been so generally overlooked.

It was one of the lessons taught us in minor surgery, in the

* Vol. 1, page 381.
† See Thomas' Practice, for some history of those affections. Ed.
days of our pupillage, as far back as 1805, never to attempt the extraction of a tooth, before dividing, carefully, not only the gum, but the ligamentous fibres attaching them. On this lesson we have ever practised in the extraction of teeth; and we have been often surprised at the facility with which we have extracted teeth, after other operators, both dentists and regular practitioners of medicine, had failed. We presume now, since the announcement of this discovery, and the improvement in the art of extracting teeth, by some dentists in Philadelphia, that the fact has been, that they were in the habit of extracting, without dividing these adhesions with a cutting instrument—thus substituting the severest laceration, for cutting.

After the action of the Society on the business of the committee, the essay for the evening was called for, whereon Dr. Edwin LeRoy Antony read a lengthy and interesting essay, on the subject set apart for that purpose, which was “the pathology and treatment of Billious Fever.” After a few desultory observations on the subject, by several members, the Society adjourned until the second Wednesday in January, 1839.

Singular case of extra-uterine pregnancy.—The following curious and interesting case of extra-uterine pregnancy, is reported to us in a letter of 10th December, 1838, from Wm. F. Baldwin, M. D. of Union Springs, Macon County, Alabama, near which place it occurred. Dr. Baldwin was unable to obtain any history of the case previous to death.

“Patient, a negro woman, aged about twenty-five years. Post mortem examination disclosed the following facts. Commenced the incision about two inches above the umbilicus; in cutting through the abdominal parietes, I first came in contact with the placenta, adhering to the parietes of the abdomen for about two inches around the umbilicus. On opening the abdomen I found the child in the following position: it was lying parallel with the abdomen of its mother, with its head occupying the epigastric region, being in contact with the stomach—its right side opposite the umbilicus, and the left to the intestines. It was as large a child as I have ever seen at birth, and perfectly formed, except the head, which was enormously distended with gas—all the bones of the head were broken into several pieces, which must have been occasioned by the inordinate contractions of the abdominal muscles, at the period at which labor should have taken place. The umbilical cord was of the usual size and length, inserted into the placenta opposite the umbilicus. The uterus was about the size of a goose-egg: its cavity containing a small quantity of thin glairy matter. Saw no particu-
lar derangement of the abdominal viscera. The child was sup-
posed to have been dead some ten or twelve days.

The above examination was witnessed by several respectable
gentlemen."

British Provincial Medical and Surgical Association.

No one who has noticed in the medical periodicals for the last
few years, the proceedings of the Association above named, can
fail to perceive its immense importance to medicine, and its col-
lateral sciences. In a former volume of this Journal, we called
the attention of the profession to the importance of a similar as-
association for the United States of America; and we are happy to
observe that, before and since, the subject has not been entirely
neglected in other quarters. Could a nucleus once be formed, we
feel assured it would not suffer a loss of interest subsequently.
It may be observed, in the following extract, that the British Pro-
vincial Medical and Surgical Association had its beginning in
1832, with but "about 150 members, derived from a limited dis-
trict," but that at its recent meeting in 1838, it "embraced
the whole kingdom, with upwards of 1200 members enrolled." There can be no such College for usefulness to the medical prac-
titioner, and the scientific physician. We hope the day is not
far distant, when a spirit of philanthropy and a love of science
will be found moving amongst the profession in America, and
arousing her thousands to assemble, annually, at least, for re-
ceiving and imparting knowledge in that profession which is
dearest to humanity. No one can, without the experience, fully
appreciate the benefits which must result from such an Associ-
ation, in exalting the profession on the best of grounds—its great-
er usefulness. Indeed, such is the importance of an institution
of this kind, not only to the profession and the literary character
of the country, but also to the community at large, that its insti-
tution and sustenance are subjects not unworthy of Congressional
action.

We give below, an extract, as taken from the Boston Medical
and Surgical Journal, from a letter written by Dr. E. Barlow,
who presided at the last anniversary, to Dr. Warren, of Boston.
It will be read with much interest.

We learn from Dr. Barlow's letter, that the Provincial Medi-
cal Faculty are about to enhance, still further, the interest of their
annual re-unions, by forming subordinate District Branches,
suited to the localities and personal convenience of the members—
the plan which we suggested in our remarks on the subject.
This will afford opportunity for more frequent meetings, the im-
portant details of which will be concentrated at the annual gene-
ral sessions. We may, henceforth, look to our British neigh-
bors with increasing interest, for all valuable thought and observation.

"I lament that you could not have been present at the late anniversary meeting of our Provincial Medical and Surgical Association," which took place in Bath last week under my presidency. Nothing can be conceived more highly interesting than this annual reunion of the Provincial Medical Faculty of this kingdom, nor more likely to lead to important results. After a few months of deliberation this association was instituted at Worcester in 1832, and it has since held six anniversary meetings successively in Bristol, Birmingham, Oxford, Manchester, Cheltenham and Bath. We began with about 150 members, derived from a limited district; we now embrace the whole kingdom, with upwards of 1300 members enrolled. For more effective cooperation than one annual migratory meeting would admit, we are forming subordinate District Branches, members uniting themselves in branches according as their localities and personal convenience direct, and holding whatever local meetings their zeal and diligence may respectively require.

We assemble next year at Liverpool; our regular anniversary day is the 19th of July; but in order to ensure the convenience of holding our meetings on fixed days of the week, our rule is to assemble on the 15th and 19th of July, when the latter day falls on a Thursday, as it did this year, or on the first Wednesday and Thursday after the 19th, as will be the case next year. This rule enables all concerned to foreknow the exact time at which meetings will be held.

"Is it too much to hope that in this age of rapid navigation and steamboat flight, some of our United States brethren may be tempted to cross the Atlantic for the purpose of honoring us with their presence at these our national medical conventions, and personally receiving from us assurance of the high esteem in which we hold them?" May I indulge the expectation that at our next reunion at Liverpool, some representatives of the U. S. Medical Faculty may find their way to us, and allow us to evince towards them the cordial respect and regard which we unfeignedly feel? If you could hold out any such hope, it would be an incentive to our energies of the most inspiring and exhilarating kind. Pray think favorably of this suggestion, and diffuse it as widely as you can.

[For the purpose of exhibiting still further the objects of this association, as well as some arguments which are equally in favor of a similar one in this country, we present part of the address of the same gentleman on taking the chair, as President elect for the year, at the late anniversary at Bath. Extracts from the doings of the association may hereafter be copied.]

"Gentlemen,—In entering on the office which your kindness has assigned to me, my first agreeable duty is to bid you all heartily welcome to this our ancient city, which was never more signally honored than it is on the present occasion. Cultivated talent and moral worth, especially when combined, must ever receive the respect and regard of all who are capable of appreciating them. For both, our revered profession has always been eminent; and when they who, even amongst its members, distinguish themselves by pressing forward in the career of humane and enlightened endeavor, assemble in such numbers as I rejoice to see now around me, for the purpose of cultivating still further their divine art, and promoting the best interests of humanity, their presence must confer honor on any place which is graced by such an assemblage. It is not my design, gentlemen, to trespass long on your time or attention, in the address from the chair, with which the customs of our association require me to open the present session. To do so would be an abuse of the privilege which my present situation confers, and prove only an irksome delay of the far more interesting matter which will be speedily submitted to your consideration. In each successive year some change takes place in the circumstances under which your President ad-
dresses you. Herefore, and until the designs for which the association was instituted had become generally understood, it was the duty of your President, in their respective discourses, to dwell on those designs and the evidences of their fulfillment, so as to make their nature, scope, tendency and progressive realization familiar to all concerned. Happily this is no longer needed—for the years that have elapsed since we first assembled to found this association, and the wide diffusion of our Reports and Transactions, have made these designs daily known; while extension of the association, which in respect both of numbers and space, has advanced with a rapidity which I may say is unexampled—furnishes assurance the most unequivocal of their being justly appreciated. Were further proof of this needed, the assemblage which I now see before me, congregated from almost every part of the kingdom, must suffice to carry conviction to the most skeptical. And here, gentlemen, I will remark, that so long as we display such evidence of zealous and harmonious co-operation, we may be content to pursue the direct and even tenor of our way, whatever the opposition we may chance to encounter; and, cheered by the consciousness that, so far as our abilities extend, we are pursuing indubitable objects from pure motives, we may safely disregard objections, such as only ignorance or misperceptions of our designs could urge against us. Practical details and statistical elucidations you will have abundantly in the inferior proceedings of the present meeting; on all such it would be vain and idle for me to dwell. I prefer, therefore, during the few moments to which my present trespass shall be limited, to direct your attention to those considerations which admit not of statistical exposition, yet which are not the less valuable from requiring to be addressed rather to the mind's eye than to our actual perceptions. The main objects for which we are associated, as stated in our fundamental constitutions, are, the advancement of medical science and the maintenance of the honor and respectability of the profession. These objects are intimately connected; for unless science be diligently and effectively cultivated, the honor and respectability of the profession would rest on a very slight foundation; and unless the honor and respectability were otherwise maintained, on the high ground of moral integrity and liberal sentiments, no advance in science could vindicate its claim to that high estimation in which it has through ages been held, and which, I trust, it will ever, even with sensitive jealousies, preserve. The feelings of the sensitive Roman, who would not that his wife should be even suspected of error, are to be commended; and with similar feelings it should be our care so to conduct the proceedings of our association, that not even the suspicion of selfish or sinister designs should attach to us. To the cultivation of medical science our endeavors have been hitherto directed, with an earnestness and steadiness of which it becomes me not here to speak. However little these endeavors may have hitherto produced, they have at least been executed with a zeal worthy of the cause which called them forth. My present purpose, however, is not to dilate on these efforts, or their fruits, but to impress on you all, that they who would judge of the value of our association, even by the effects already made, or the products which have resulted from them, would form but a very imperfect estimate of the benefits which our association is conferring, and which it cannot fail eventually to realize. It has been asked, and in a deprecating tone and unkindly spirit, what have we done! The very question conveys to me the conviction that the party proposing it has no adequate conception of the subject on which he affects to seek information. No one really imbued with the love of science or the spirit of truth would even form the conception of judging us by so crude and inadequate a test. It is, no doubt, true that fruits should be the proof by which modes of cultivation should be judged; but surely not till time be given for seeds to germinate and plants to fruitify. In our cultivation of medical science, it surely cannot be barren of fruits when upwards of one thousand energetic members of a liberal and enlightened profession are united.
by the insipiring stimulus, which this association supplies, to exert their best faculties and most earnest efforts for investigating those truths of nature which it has ever been the object and aim of our profession to explain. In the activity thus aroused, there is an ample assurance that the energies so called forth will not be unprofitable—that to the seed thus sown may we look with full confidence for a rich and abundant harvest. I care not, gentlemen, how slowly this harvest advances; it being enough to satisfy me that we are advancing. I am not impatient for brilliant discoveries, such as the history of science has shown to occur only at intervals, few and far between. Science is ever of slow advance, if this is to be judged by the sudden bounds by which consummate genius starts a head of contemporary talent, marking epochs in the history of science. But it is ever steadily progressive, if we note the slow, but sure—the humble, unpretending, but diligent and unwearyed labor with which its ordinary votaries endeavor to extend it. Among these humble laborers do we class ourselves; with the merit attaching to such labor, we will be content, and on the result of such labor are we satisfied to rely. Should it fall within the ineritable designs of Providence that some master mind should spring up amongst us, some heaven born genius destined to achieve the performances and equal the eminence of a Newton or a Harvey, we shall gratefully hail the distinction, assuming only the humble merit of having used our best endeavor to incite and cherish such transcendent talent. But, gentlemen, in the ordinary pursuit of our objects we look not for such results, and on the diligent exercise of ordinary talents are we content to rest our claims for commendation, encouragement and support. I am led to submit these views to you, gentlemen, believing them to be those of truth and sober reason; for while I would deprecate all extravagant anticipations and vain boasts of, I conceive it essential to the steady progress of our combined exertions that we neither undervalue what we have done, nor form an incorrect estimate of what our conjoined labors are capable of effecting. On the second head of my address, that, namely, which relates to the maintenance of the honor and respectability of the profession, I shall be very brief—for this honor and respectability must ever flow, not from self-elevating pretensions or arrogant claim to consideration, but from the professional skill and moral worth of the individual members. As the aggregate of parts constitutes the whole, so must the maintenance of honor and respectability by each individual member of our association ensure, beyond the possibility of failure, the continuance of these long-enjoyed attributes to the collective body; and when I consider the high moral qualities which the members of our body on all occasions display, the talents they exhibit, and the zeal they manifest, to all of which even the brief records of our association already bear ample testimony, I can entertain no fears of our ever, as a profession, descending from that high moral eminence, on which the opinions of the world, and the express declaration of several of the saggest and most acute observers of human nature, have for ages placed us. On the conduct of our individual members I confidently rely for preserving, unsullied, that reputation which the profession has hitherto maintained.

So far as my judgment and feelings are capable of guiding me, I would say—in cultivating medical science disdain not, through vain aspirations for profound theories or dazzling generalizations, that patient observation of nature and diligent collections of accurate facts, from which all true theory must be derived, all sound generalization deduced; and, in upholding the honor and respectability of the profession, let the measures we collectively sanction ever bear the impress of that high-toned moral feeling which has so long distinguished our profession, and by which its true interests require us ever to abide.
**Ununited Fracture successfully treated.**—The following very interesting case of *ununited* fracture, successfully treated with the use of mercury, by Mr. Bransby Cooper, is taken from *Guy's Hospital Report*, No. 5, October, 1835: edited by G. H. Barlow, M. D., and J. P. Barington, M. A. by the Medical Chirurgical Review. It is reported as being cured by the use of mercury. Such may be the fact; for we have known even the wound caused by the amputation of a leg, to refuse adhesion and cicatization until the general system was re-joined from constitutional disease by this invaluable alternative power. Still, however, the fact of the cure having been effected by the mercury used, may, from all the circumstances of this case, admit of some doubt. The two circumstances most calculated to excite this doubt, are the following: It will be observed that in all the previous part of the treatment, the fracture was very strictly bound and compressed, by the different kinds of apparatus commonly used in such cases—precisely such as M. Fleury found to prevent the consolidation of fractures, by the interruption of vascular action which they caused, and the removal of which, with other proper retentive means, secured ultimately the best results.

It will be observed, further, that some time after this cure was effected, the same patient suffered a fracture of the same bone, near the seat of the former fracture. This fracture united by the same local treatment, viz: "a well-padded leathern girth," &c. without the exhibition of mercury. But the reader will form his own opinion on reading the case, which is as follows:

**Ununited Fracture—Influence of Mercury**—A healthy-looking young woman aged 23, was admitted, March 9, 1836, with an ununited fracture of the left humerus, just below the deltoid muscle. Six months previously, when in good health, she was thrown from a cart, and received the fracture. Splints were applied, but at the end of eight weeks there was no union. The splints were replaced, and the arm bound to the side for a month. There was still no union. The apparatus was replaced with the addition of an iron splint, extending from the outer side of the humerus to the wrist, being bent at an acute angle: and the arm was bound, bound to the side.

This plan was also persisted in for a month, but with no better effect.—The surgeon, still unwilling to give up the case in despair, made one other attempt, by applying a bandage tightly round the arm; and, placing wooden splints over it, compressed them to the utmost the patient could bear, to which she submitted patiently for two months; at the expiration of which period, the fractured extremities of the bone were found as moveable as ever.

On admission, the two portions of bone moved readily upon each other, but with not producing any thing approaching to the sensation of crepitus: on the contrary, the mobility of the part conveyed the impression of the formation of a supernumerary joint, and the muscles were capable of producing some voluntary motion. Mr. Cooper proposed the introduction of a seton between the ends of bone. This was done on the 23d of March. On the 25th, there was some fever, and local irritation. But the seton failed, after a trial of ten weeks. Then a bandage dipped in a composition of egg and
flour was worn—then the limb was enveloped in plaster of Paris. Neither
plan succeeded.

"About this period, Mr. Colt, from Dublin, paid a visit to Guy's Hospi-
tal; and, in going round the wards, Mr. Cooper drew his attention to the
case in question. He had seen the administration of mercury, con-
tinued until it produced pyalism, lead to the consolidation of ununited frac-
tures; after all other means had failed; and quoted two cases in illustration
of the assertion. The patient was accordingly immediately ordered four
grains of Hya. c. Cre., three times a day; and a well padded leather gird-
led, was firmly applied immediately over the
seat of fracture. In four days, pyalism was produced, and the quantity of
mercury was diminished. On the sixth day the powders were suspended,
as she suffered severely from their effects. The leather girdle was worn a
month; and upon its removal, perfect union of the bone had taken place;
affording satisfactory proof that the mercury had produced an altered action
on the epiphyses of the affected part, and cementifying the powerful altera-
tive influence of that metal. She was admitted in the Hospital six weeks after
this happy salut, to regain her strength; when she was discharged as cured,
and with a perfect use of her arm.

Three months after her departure, she was again admitted into Guy's
Hospital, for a fracture of the same arm, produced by a violent blow, inflic-
ted by a man running with great velocity against her, and knocking her
down. Upon examination, it was found that the humerus was fractured ra-
ther below the seat of the former injury; and the usual concomitant symp-
toms of simple fracture were present, as crepitus, &c.; and by the application
of the same girdle which had been employed on the former occasion, the
bone united at the usual period, without the exhibition of mercury."

_Singular Iusus Nature._—The following interesting and sin-
gular case of lusus nature, is extracted from a letter dated 17th
December, 1838, from our valued and scientific correspondent,
William Markley Lee, M. D., of Georgetown, S. C.

"Whilst on a visit to a sick negro, on the plantation of J.
Harleston Road, Esq., on Winyaw Bay, on the 17th August
last, my attention was called to a female negro child, born
the night previous. The head, body, and upper extremities, were
well formed; but the lower, exhibited a _lusus nature_, such as I
had never seen or read of; the legs were apparently transposed,
each femur being inserted into the acetabulum of the opposite
side; the knees and toes turned backward; the child seemed
much emaciated and attenuated, by an indolent ulcer, or rather
open abscess, perhaps one and a half inches in diameter, seated
over the lumbar vertebra. I prescribed a local application, and
now regret that I did not request to be informed, in the event of
its death, in order to make a _post mortem_ examination. The
case of my patient being of a chronic nature, I did not repeat
my visit until a week had elapsed, when I was informed that
the infant had died, and been buried several days previous. As
already observed, this is the only case of the kind I had ever
seen; will any medical gentleman favor the readers of this _Jour-
nal, with a statement of any similar case?"
On a new means of Diagnosis between Amaurosis and Cataract. By M. Sanson.—If a light be presented before an animal eye—a pupil which is either naturally or artificially dilated—three distinct images of the flame may be invariably observed. Of these three images, two are upright, and one is reversed; they are situated, the one behind the other in the following order. The anterior one, which is also most distinct, is one of the former or upright images. The posterior or deepest, which is the least distinct, is also one of the upright images. The intermediate image is the reversed one.

This last, or reversed image, is paler than the first, but brighter than the second upright one; and it also differs in this circumstance, that, when the light is moved to either side or round the eye, it is separated from the other two images so as always to occupy the opposite side, while they (the upright ones) are seen to follow the position of the light, moving to the right or left, upwards or downwards, according as the candle is moved in any of these directions.

If the candle be held opposite to the axis of the eye, all the three images are situated one behind the other—the two posterior ones being, as a matter of course, masked and obscured by the anterior one. But if it be held to a—say the right—side, then the reversed image will be seen in the opposite or left angle of the eye, while the upright ones are seen at its right angle.

If it be moved around the eye, the upright images follow it together, while the reversed image, although describing the circle in the same direction, is always at the opposite end of the eye's diameter.

The unpractised observer may experience some difficulty in observing these phenomena.

The patient should be placed in a dark chamber; and let us suppose that the candle is held at the external angle of the eye: the anterior upright image, which is large and brilliant, will be observed at the outer and upper part of the pupil. If we now look very attentively into the bottom of the eye, the reversed image will be seen at about one line's breadth from the preceding upright image, and at the meeting of the lower with the middle third of the diameter of the pupil—the right extremity of which (the diameter) is occupied with the anterior upright image.

If the surgeon does not detect these phenomena at first, he has only to move the light upwards and downwards, once or twice, fixing his look steadily on the pupil, and he cannot fail to observe that one image rises and the other descends.

As to the posterior or deep-seated upright image, it is always very difficult to perceive it, in consequence of its paleness, and of the intervention of the other upright one—of which it looks like the shadow.

Mr. Sanson assures the surgeon that, when once they have detected the very images, they will always readily perceive them afterwards, provided, there be no obscurity or opacity of the lens.

Whenever the cataract exists, no matter what may be the stage or progress of disease, none of the images, described above, are ever perceptible.

Some time ago (says M. Sanson,) a patient was sent to me from a great distance to be relieved by operation from a cataract: the three images were perceived; the patient was affected by amaurosis.

A few days ago I was desired to visit a patient, who had been pronounced by several medical men in the metropolis to be affected with cataract: I perceived the three images and declared the case to be one of amaurosis.

A woman, whose sight was entirely lost, was lately sent to my care as an amaurotic patient. There was no opacity visible in the field of the pupil; but two of the images were absent. I give it as my opinion that she had two cataracts; and the accuracy of this diagnosis has been subsequently confirmed.

The preceding remarks were made by M. Sanson, one of the surgeons of the Hôtel Dieu in Paris, in his course of lectures on ophthalmology during
last year. He had first noticed the phenomena, described above, about

Section of a Tendon—ligature—cure.—Professor Seree of Montpelier, has

the case of a surgeon’s instrument maker, who accidentally divided with the

point of a knife the extensor tendon of the middle finger, of the left hand, near the metacarlo-phalangean articulation. Not being able to bring the ends of the divided tendon together by extending the limb, he exposed them by an incision, passed a suture through them and thus maintained them in apposition. On the eleventh day the ligature came away, and a short time afterwards the patient recovered the perfect use of his finger, without any untoward accident having manifested itself.

The treatment of divided tendon with the suture, is a most ancient one, and it seems surprising that so distinguished a surgeon as the reporter of this case, should adduce it as possessing any novelty.—American Journal of the Medical Sciences.

Division of the Tendo Achilles—Is it a New Operation?—The next patient brought in was a little boy of six years of age, whose feet had been deformed from birth; the foot being in both cases turned in, and rotated upwards and inwards, while the toes were at the same time kept pointed by contraction of the tendo Achilles. Mr. Keate inserted a narrow knife, with the flat surface between the skin and the tendon; then turning the edge towards the tendon, it was cut across by the knife, the heel being at the same time drawn downwards, so as to separate the divided ends from one another. An instrument was then fastened upon the foot, so as to incline it in a strap and kind of shoe, while an iron went up the leg on each side, and was buckled round the leg just below the knee. The shoe part was so contrived as to stretch the back of the leg, and allow of its being still more extended, if necessary, afterwards. The little fellow bore both operations without a single exclamation, and hardly even moved during the time. Mr. Keate afterwards explained the case to the students, and remarked that he had lately seen or heard of this operation having been revived as a new discovery, but that he had often seen it done, and as long as five-and-thirty years ago; and that he believed it generally succeeded very well—Sir Benj. Brodie’s Clinical Lectures in Med. Gas.

The report is imperfect. It would lead the reader to suppose that the operation now so frequently performed was formerly very common and succeeded well. Then why, the reader asks, had it fallen into disuse? Mr. Keate, we believe, said he saw it performed many years ago. He did not say that he saw it often performed; indeed we have reason to think that he did not. But the operation that Mr. Keate saw was not the operation now in use—for, in the former, the skin was divided as well as the tendon, and in the present operation it is not divided. This makes a vast difference.

of the possibility or impossibility of ovarian pregnancy. MM. Prevost and Damas have proved the important office of the spermatic animalcula in the act of fecundation, but not that their actual introduction into the ovule is necessary to vivification; nor yet that these animalcula, imprisoned in the cavity of the womb, wait there for the descent of an ovule. On the contrary, tubal pregnancies are incontestable and uncontested; and, as it is not to be supposed that the fetus developed in the tube had been invaginated in the womb, and had thence re-asceded to its narrow abode, so must its vivification in the fallopian tube, be admitted by all. This first being gained, the succeeding will be made with comparative facility. Even those who deny the possibility of impregnation taking place while the ovule is yet enveloped by the investment of the ovaries, must yet admit some vivifying influence that induces the ovule to burst its boundary walls and descend through the tube. Of the second variety are cited two cases where a fetus was found between the layers of the broad ligaments, one of them dissected by Professor Lobstein. Among all the cases upon record of utero-interstitial pregnancy, the most valuable for the authenticy of its details is that communicated by Dance to M. Breuher. It is evident in this case that the pregnancy was really and purely extratubal, that is, without the participation of the fallopian tube in the wall of the cyst containing the fetus; the tube, in traversing the uterus was connected with the wall of the cyst, and presented in one point an opening, which was indeed taken for a rupture made in detaching the placenta, but whose existence more probably preceded the passage of the fetus into the substance of the uterus. This circumstance of the case conducts us by insensible gradations from the tubo-uterous interstitial pregnancy to the simple interstitial, whose locality is more distant from the tube, and very much diminishes the mystery with which some have invested this state of parts.

Primitive abdominal pregnancy is interesting only as shewing upon what parts the fetus is ingrained, and how it supplies itself with the necessary quantity of blood. Secondary abdominal pregnancy involves the discussion, whether, as M. Guilleminot states, some cases of normal gestation may not thus terminate, in consequence of rupture of the walls of the uterus: in either case, if the immediate danger be surmounted, the mother may sustain her unborn offspring for an unlimited period in this new condition.

Pathological Anatomy of the Extra-Uterine Fation.—In these cases the embryo generally retains its proper membranes, viz: the chorio and amiose, and also the placenta, if it has survived the first days of its existence; the placenta is larger than natural, thin, furnished with very small vessels; circumstances induced by the difficulty of obtaining an adequate supply of blood from the neighboring organs. In the primitive abdominal pregnancy, there is rarely an enveloping cyst that can be considered analogous to the caduceus; owing, no doubt, to the trifling inflammation produced in the first instance by the presence, in the cavity, of the peritoneum, of so small a body. In the secondary form this cyst is always found. Being indeed as necessary a consequence in this case as its absence was to be anticipated in the last; for, whether the fetus be disengaged into the abdominal cavity, by rupture of its envelope, as a tubal, ovarian, or other gestation, or by rupture of the uterine walls, the presence of so large a foreign body could not but excite inflammation, the glueing together of the neighboring organs, and thus at last a perfect cyst. As to the fetus itself, 1, a remarkable development of the osseous system has been observed in some instances, as well as the presence of several teeth; 2, a putrid state of the fetus, the bones of which made their exit from the body by different routes; 3, a dessicated or mummified condition; and, 4, its transformation into a chalky mass, into amazone, or into bone. Examples of monsters in these situations are rare.

Of the mother.—The normal change in the size and vascularity of the uterus, its gradual diminution and return to the condition of vacuity, as well as
the formation of the membranous decidua, are attested by cases. The secretion of milk and the menstruation obey the usual laws of natural gestation; most unfitness to the mother's system, and by tubal and inter-uterine abortion; this condition offers no natural obstacle to natural gestation and delivery. At the expiration of the embryonic period, child-bed pains supervene, and last some days, and are often renewed at pretty regular intervals as long as the pregnancy continues.—B. and P. Med. Rev. from Journal des Con. naiss. Med. Chir., Jan. 1837. Am. Jour.

MEDICAL INTELLIGENCE.

MEDICAL PRIZE.

In the last number of this Journal, for December, we announced the offer of a medical premium of fifty dollars, or its equivalent, to be designated by the successful competitor, for the best approved essay on the use and abuse of calomel, as a therapeutic agent.

On a reconsideration of this subject, at the next meeting, which was on the 5th December, it was determined by the Society, for various good reasons, to substitute for the subject first announced, the following:

"On the Pathology and Treatment of Congenital Fever."

The following are the arrangements adopted by the Society:

1. The Essay shall not exceed 40 octavo pages.

2. Essays, intended for the competition, are to be directed, free of expense, "To the Secretary of the Medical Society of Augusta, Ga." and must be in his possession by the 1st day of May, 1839. Each essay must be endorsed with a motto, which must be also on an accompanying sealed letter, containing the name and address of the writer.

3. The Medical Society will, as a body, proceed to the reading and inspection of all the essays received by the Secretary, as soon as practicable after the 1st day of May, 1839, and will determine by the vote of the majority, on the successful essay. After such decision, the letter bearing the corresponding motto, will be opened, and the essay published under the name of the author, in the Southern Medical and Surgical Journal.

4. Should none of the Essays be judged worthy of the prize proposed, they will remain in the hands of the Secretary, subject to the order of their authors, for three months, the name remaining under seal; after which, if not otherwise directed, will be considered the property of the Society.

The Medical journals of the United States, and also the Literary periodicals, are respectfully requested to give notice of the same by publishing the above.—[Extract from the Minutes.]