E. A. Washburne, D.D., Rector of St. Mark's, Philadelphia.

James McClune, Central High School, Philadelphia.

Calvin Pease, D.D., First Presbyterian Church, Rochester, N. Y.

New nomination No. 494 was read.

And the Society was adjourned.

Stated Meeting, May 1, 1863.

Present, twenty-six members.

Dr. Wood, President, in the Chair.

Letters accepting membership were received from Chester Dewey, dated University of Rochester, April 22d; William Henry Green, dated Princeton, April 26th, and Charles A. Schott, dated Washington, D. C., April 22d, 1863.

Letters acknowledging the receipt of publications were received from Prof. Hyrtl, and the Secretary of the Imperial Academy at Vienna, dated November 1862; the Royal Academy at Munich, October, 1862; the Batavian Academy at Rotterdam, January 21st, 1863; the Bureau des Longitudes at Paris, December 5th, 1862; the Leeds Philosophical and Literary Society, December 31st, 1862; the Library of Congress, April 22d, 1863; and the Smithsonian Institution, July 22d and October 20th, 1862.

Donations for the Library were received from the Royal Astronomical and Chemical Societies in London; the Geological Society of Dublin; the Massachusetts Historical Society, Dr. Dewey, of Rochester, Mr. William Vaux, Prof. Cresson, Prof. Lesley and Mr. Leipoldt, of Philadelphia, and the Smithsonian Institution.

The decease of a member of the Society, Dr. William Darlington, on the 23d of April, at West Chester, aged eighty-

one (within five days), was announced by Mr. T. P. James, who, on motion of Dr. Coates, was appointed to prepare an obituary notice of the deceased.

The Secretary presented the following communication from Prof. Dawson, of Montreal, and, on account of the notice given of an address by Mr. Price upon another subject to which the evening would probably be devoted, moved the postponement of its consideration until the next meeting, which was so ordered.

Dr. Dawson desires, with reference to the rejoinder of Mr. Lesley to his objection to the views of the latter, on the Coal Formation of Nova Scotia, to make the following explanations.

1. Dr. Dawson is not aware that he has, at any time, maintained that the "coal-measures proper" of Nova Scotia are 25,000 feet in thickness. In speaking of their enormous thickness, he referred to the actual measurements of Sir W. E. Logan at the Joggins, which give for the whole of the Carboniferous rocks seen in that section, a vertical thickness of 15,570 feet, and for the coal-measures proper, or Middle Coal Formation, a thickness of rather less than 10,000 feet. The objections based by Mr. Lesley on this supposed thickness of 25,000 feet, are therefore quite inapplicable to the views of Dr. Dawson.

2. Dr. Dawson does not admit the interpretation of his views as to the unity of the coal flora given by Mr. Lesley. The "inconsistencies" alleged by the latter, depend in part on the imaginary thickness of 25,000 feet attributed to the Middle coal-measures. The identity of the flora throughout the Middle coal formation, and the distinctions between this and the assemblages of plants in the Lower and Upper coal formation, admit of being readily ascertained, where good exposures exist, as in Nova Scotia; and it is to be borne in mind that the investigations of Dr. Dawson on this subject have extended over more than twenty years, though many of the details ascertained have not yet been published.

3. It should be understood that the Carboniferous system in Nova Scotia consists of the following members:

(1.) *The Upper coal formation*, containing coal formation plants, but not productive coals.

(2.) *The Middle coal formation*, or coal formation proper, containing the productive coal-beds.

(3.) *The Millstone grit series*, represented in Nova Scotia by red and gray sandstone, shale, and conglomerate, with a few fossil plants and thin coal seams, not productive.

(4.) *The Carboniferous limestone*, with the associated sandstones, marls, gypsum, &c., and holding marine fossils, recognized by all palæontologists, who have examined them, as Carboniferous.

(5.) *The Lower coal-measures* holding some but not all of the fossils of the Middle coal formation, and thin coals, not productive; but differing both in flora and fauna from the Upper Devonian, which in New Brunswick they overlie unconformably.

The principal, though not the only point in which Mr. Lesley differs from Logan, Lyell, Brown, and Dawson, is his entire omission of No. 5 of the above series, and placing No. 3 of the above series in its room, as the representatives of the Lower coal-measures of Virginia and Pennsylvania. I have, I think, already made this sufficiently plain, in the fifth of my objections, already published; but may add here that fossils as well as stratigraphical position establish the real equivalency of No. 5, and not No. 3, to the Lower coal formation, as described by Lesquereux in America, and by Geoppert in Europe; and that it seems strange that Mr. Lesley, while suggesting minor and more dubious parallelisms, declines to admit this identification, established by long and careful investigations of several competent observers, and confirmed by the evidence of fossils.

It is impossible now to enter into the evidence of the conclusions which I have stated in reply to Mr. Lesley. This is, however, in great part before the world, more especially in memoirs published in the Proceedings of the Geological Society of London; and I have, for several years, been engaged in making up for publication the fossil plants collected from all the members of the Carboniferous system of Nova Scotia. This I trust to be able to publish in the course of this year or next, when I think the actual parallelism, as above stated, will be more fully apparent than it can be made at present.

Mr. Price then read a communication upon the subject of trial by jury.

The Constitution of the United States declares, "The right of trial by jury shall be preserved;" and the Constitution of Pennsylvania,

"That trial by jury shall be as heretofore, and the right thereof remain inviolate."

This time-honored institution, as known to us, peculiar to British and American jurisprudence, had the germ of its origin in the forests of Germany, whence it is traced with other features of the Constitutions of England and of these States. It must have been felt to be a bulwark of liberty and justice, otherwise it could not have been so long and so sacredly preserved as our inheritance, through successive invasions and conquests of England, and revolutions there and here, and many usurpations of arbitrary power, to be here made fundamental in the Declarations of Rights contained in our Constitutions.

"Whoever," says Montesquieu, "shall read the admirable treatise of Tacitus on the manners of the Germans, will find that it is from them the English have borrowed the idea of their political government. This beautiful system was invented first in the woods." (Bk. XI, Ch. VI.) Tacitus, after speaking of those general councils of the whole community, which must have been the origin of the Wittenagemote, or British Parliament, says, "It is in these assemblies that princes are chosen, and chiefs elected to act as magistrates in the several cantons of the State. To each of these judicial officers, assistants are appointed from the body of the people, to the number of a hundred, who attend to give their advice, and strengthen the hands of justice." (Sec. XIII.) Divisions of the freemen into hundreds, who attended the hundred court, are of frequent mention in the early laws of France and Lombardy, and they became under King Alfred and his successors, the prevailing system over England; and the name is yet familiar in portions of our own country.

Some have traced the origin of juries to Athens and Rome; but these were more popular assemblages, sworn, it is true, in the cause, but deciding by majorities; and such may have been the character of the Saxon and Roman assemblages, who aided in the administration of justice, and the conservation of the peace. Selden ascribes to the reign of one of the Ethelreds the first mention of a jury of twelve. The law is in these words: "In every hundred let there be a court; and let twelve freemen of mature age, together with their foreman, swear upon the holy relicks, that they will condemn no innocent, and will absolve no guilty person." Selden refers this law to the period of Ethelred who began his reign in 961; but Reeves, in his History of English Law, to a king of that name who next preceded Alfred the Great, a hundred years prior, whom Hume calls Ethered. The transactions of the reign of Alfred, which began in 871, show

that trial by twelve jurors existed in his time, and that an unanimous finding was then required. The Mirror of Justice, written long before the Norman conquest of 1066, reports the following doings by that renowned monarch: "He hanged *Cadwine*, because that he judged *Hackway* to death without the consent of all the jurors; and whereas he stood upon the jury of twelve men, and because that three would have saved him against the nine, Cadwine removed the three, and put others upon the jury, upon whom Hackway put not himself." "He hanged *Freeburne*, because he judged *Harpin* to die, whereas the jury were in doubt of their verdict; for in doubtful causes, one ought rather to save than condemn." Here, a thousand years ago, in distinct lineaments, is seen the jury of our day, with the feature of unanimity of decision, and a sternly purposed immunity from judicial encroachment. (Mirror, 339–40.)

John Reeves, a high Tory historian, ascribes the trial by twelve jurors to Norman introduction after 1066; admits that it had obtained in Scandinavia, at a very early period; went into disuse, was revived about 820, carried by Rollo into Normandy, and thence by the Norman conquest into England. He speaks of a lost act of Henry II, enacting that all questions of seisin of land should be tried by twelve good and lawful men, sworn to speak the truth. (1 Reeves, 84, 86.) But the Mirror of Justice shows that it existed in full vigor nearly two hundred years before, and it is probable that it existed there long before King Alfred's reign.

Hallam says, "It has been justly remarked by Hume, that among a people who lived in so simple a manner as the Anglo-Saxons, the judicial power is always of more consequence than the legislative. The liberties of these Anglo-Saxon thanes were chiefly secured, next to their swords and their free spirits, by the inestimable right of deciding civil and criminal suits in their own County Court; an institution which, having survived the conquest, and contributed in no small degree to fix the liberties of England upon a broad and popular basis, by limiting the feudal aristocracy, deserves attention in following the history of the British Constitution." (2 Mid. Ages, 9.)

Magna Charta was extorted from successive kings of England, in the thirteenth century, and they were made to declare that, "No freeman shall be taken or imprisoned, or disseized of his freehold or liberties, or free customs; or be outlawed or exiled, or any otherwise destroyed; nor will we pass upon him, nor condemn him, but by lawful *judgment of his peers*, or by the law of the land." (Chap. 29.) "By lawful judgment of his peers," means a trial by those of

equal rank and condition; peers of the realm by such peers; freemen of the hundred by other freemen thereof. Such an immunity in ages of violence and insecurity, must have been regarded as of inestimable value, and as no age or country is exempt from the violence of prejudice and excitement, and the partialities of similar social condition, this security of trial by one's peers should forever be regarded as an inappreciable inheritance.

Justice is always administered with the highest satisfaction to the citizen, when he is satisfied with those who are to adjudge his rights. When assured that the jury are his equals, possessing a common interest with himself in the laws to which they are to give effect, he is best prepared to yield his confidence, and to abide by their verdict. Add to this his privilege of striking from the panel so many as measurably to make the residue to be persons of his choice, and he becomes the better satisfied to submit his rights to their decision.

This institution of trial by jury, which since an unknown antiquity has been consecrated in the affections of the only nations of the earth truly free, it is suggested in this age of free inquiry, that spares not the most sacred subjects, may be dispensed with, or essentially modified in its procedure. The first objection to be made to any change of the trial by jury, is that *change* in itself incurs some risk of loosening a conservative dependence upon long-established and venerated practice, and that the work of reform once begun may be carried to a dangerous excess.

This concession, it is believed, may be safely made: that the parties litigant, when both are agreed, should have the privilege of submitting the facts and the law to the Judge or Judges who are sitting on the bench. This is, indeed, done whenever the party complainant files a bill in equity, or libel in the Admiralty or Consistory or Probate Court, and parties dispense with a jury when they agree upon the facts, and submit them to the Judges to pronounce the law that arises upon them. As parties may agree to refer their controversies to referees or arbitrators, both as to facts and law, so they should be at liberty to make the Judges their referees of both facts and law. To make provision for this would be no invasion of the Constitution, and would demand no change of that fundamental law. By consent, except in capital cases, a party may waive a benefit secured to him by law.

To go further, it is submitted, would be unwise and unsafe, as well as require a change of our Constitutions; and this will further appear by other reasons for trial by jury yet to be noticed. While it is ad-

mitted that it is very important that the parties litigant should have confidence in their Judges, and be willing to hold or lose their supposed rights by their arbitrament, and also that exact justice, as nearly as practicable, should be administered, there are public objects to be attained by this method of trial by jury, of a political bearing, of even greater importance than the interests of the parties litigant.

Trial by jury is necessarily a public proceeding, and that publicity is the strongest guarantee against judicial favoritism and corruption. The bystanders witness the whole proceeding, and not only they, but through the press, the whole public are the observant critics of every important trial. Thus are the Judges and jury the "observed of all observers," and are undergoing a trial, as well as the accused, or the parties litigant. And thus too, not only the jurors in attendance, but the whole public, are constantly deriving an education in public affairs, and are learning the principles of law by which they hold their property, and enjoy all their rights. This to the mass of the business community is probably the most important of all the education they receive. It is important to themselves in their business affairs; it is more important in their capacity of constituents in a representative government, and in their capacity of possessors of the ultimate sovereignty of their country. It is their needed training as a free people, to enable them to appreciate and maintain a free government; and to perpetuate it, as they have inherited it, to future times. Supersede this system by cheaper modes, and more secret proceedings, then all this participation of the people in the administration of justice, so fraught with useful instruction to them, and we shall be on the road to national declension, and soon lose those characteristics which make us a nation of freemen.

Again, Judges who are not the appointees of a power, absolute by the standing armies it controls, could not sustain themselves in the public confidence, if under a compulsion to decide both facts and law, and especially if their proceedings were in written depositions and pleadings, and but little discussed before the public. Too many parties would be disappointed litigants, conceiving themselves injured, not to make a large aggregate of hostile feeling against Judges, who must decide many hundred causes in each year, and in each cause making one party unfriendly if not hostile. With the assistance of juries, the Judges escape this injustice which proceeds from disappointed expectations. The jurors are suddenly called from the mass of the citizens, for a few weeks exercise this terrible power of

deciding upon the rights, reputations, fortunes, and lives of their fellow-citizens, are dismissed, and become invisible in the community. Thus the whole qualified male citizens in turn perform this high function, and the whole in turn share this fearful responsibility, and divide the resentment that follows disappointed litigation. It then results, as stated by the profound and philosophical Montesquieu, "By this means the power of judging, a power so terrible to mankind, not being annexed to any particular state or profession, becomes, as it were, invisible. The people have not then the judges continually present to their view; they fear the office, but not the magistrate." (Bk. XI, Ch. VI.) This is all the more important where we have in operation a system not only to elect the judiciary after a term of years, but have also constituted some of our Courts judges of elections, and their decisions necessarily become the subject of partisan censure and hostility. To such feeling have some of the best judges been sacrificed, or put in peril of failure in their re-election.

And are not jurors an important assistance in the administration of justice? The best Judges bear testimony that they are. If justice be done to the wheel by placing in it the most intelligent citizens of all occupations, every traverse jury of twelve men should possess an aggregate of practical information, that should be greater than that of the Judge on the bench, however good his legal information, and as a rule, Judges admit this to be their experience as to jury trials. Yet in our city, though the Legislature has sought to remedy the evil, and to place that remedy in the hands of the Judges, there is a failure to get into our jury-boxes the full average of the intelligence of the community. There is an unpatriotic evasion of this most important duty by many citizens, who are willing enough to complain of the delinquency of others, when it becomes their own misfortune to be litigating parties.

Another suggested reform it is that jurors should be authorized to decide by some number less than the whole. The wisdom of coercing a unanimity of decision is spoken of as a relic of the barbarous age in which the trial by jury had its origin. It is said that it is to bring about a verdict, which should be the result of an enlightened intelligence only, by the powers of the respective jurors to undergo physical endurance. This requirement of a unanimous verdict, it is believed, must have proceeded from that jealousy of liberty and desire of security, which influenced the minds of the people who instituted the trial by jury. They thought it best that the accused should not be convicted, unless the case was so clearly

made out as to command a unanimity of decision; and that the plaintiff asserting a claim of property, should not disturb the existing possession, unless he could prove a clear and certain right to recover. It is better to do nothing in a case so obscure as to leave an apparent risk of doing injustice and wrong. The idea is a conservative one.

The evils incident to jury trial, which constitute the objections to it, are reasons against accepting any verdict from less than the twelve. The number of twelve is so great, that it is said too much to divide the responsibility, but when all must agree, each is held to his full responsibility. The ignorance of jurors is so great, it is said, they cannot be relied upon; if so, then a majority vote would surely be the product of that ignorance, while a unanimous vote must include the assent of the most intelligent. It is said different jurors may proceed upon different grounds, each of which by itself would be insufficient, and thus they unite upon a verdict; but a majority verdict would only be so much the more likely to rest upon such insufficient grounds, and to be carried over the heads of those who are acting upon good grounds. A vicious accumulation of different minority views is much less likely to attain a unanimity than to attain a bare majority. It is said jurors are carried away by vulgar and artful advocates, who stoop to practise upon their prejudice, and that large corporations, insurance offices, rich landlords, lawyers, doctors, gentlemen of wealth, or unpopular persons, have little chance of justice with the mass of jurors; then, that they may not suffer actual wrong at their hands, it is of great importance that jurors thus susceptible of being swayed by prejudice, should be required to be unanimous, by which all the dispassionate conservatism to be found in the twelve will be obliged to concur in the verdict. And against the wilful or erroneous action of the jury from the objected liability to bias and prejudice, the power of the court to set aside verdicts is readily exercised to prevent injustice. As the jury in criminal cases is the antagonistic power, to hold in check judges, when too closely sympathizing with an arbitrary executive, so is the court the supervising power, to correct the excesses of the jury. It results, that causes are tried by *judges and jury*. And though there be evils and inconveniences incident to this, as to all other human institutions, and it affords but an approximation to perfect justice, it is believed to be, for the causes to be tried, and the other purposes of its creation, the most perfect and safe that human experience and wisdom have devised. In the unhistorical period that preceded the Christian era, it had its beginning, and ever since has had its growth, and by

gradual usage been improved, and since it is the great distinguishing feature in the administration of justice in the only truly free nations of the earth, and has most essentially contributed to the consummation of that freedom, it should now, it is submitted, be so sacredly regarded as not to be touched by the irreverent hand of legislative innovation. If it can be improved, let that improvement come, as in the past unnumbered centuries, by those changes which practice and usage insensibly produce in all human affairs. Perfect justice is not of human attainment. Perfection is the attribute of Him alone to whom is known all truth.

It is admitted that there have been periods in English history, when the rights of juries were most seriously invaded, and their purpose perverted; when they have been coerced by denial of food and drink, by fines and imprisonment; and when the verdicts rendered by less than the whole twelve have been received by the court, or a recusant minority has been removed and replaced by others. The evil precedents of such times, the friends of irresponsible power endeavored in vain to perpetuate as authority. In the reign of Edward I, extending from 1272 to 1307, the writer of Fleta lays it down for law, that when there was a difference of opinion among the jurors, it was at the election of the judge either to afforce the assise, by adding others until twelve were found who were unanimous, or to *compel* the assise to agree among themselves, by directing the sheriff to keep them without meat or drink till they all agreed in their verdict. Another method was to enter the verdict of the major and lesser part of the jurors, and the judgment was given according to the verdict of the majority. (2 Reeves, 268; 2 Hale's Pleas of the Crown, 297, note.)

Hallam, when speaking of the prosecutions of the Crown, in the reign of Elizabeth, says, "There is no room for wonder at any verdict that could be returned by a jury, when we consider what means the government possessed of securing it. The sheriff returned a panel, either according to express directions, of which we have proofs, or to what he judged himself of the Crown's intention and interest. If a verdict had gone against the prosecution in a matter of moment, the jurors must have laid their account with appearing before the Star-chamber; lucky, if they should escape, on humble retractation, with sharp words, instead of enormous fines and indefinite imprisonment. The control of this arbitrary tribunal bound down and rendered impotent all the minor jurisdictions. That primeval institution, those inquests by twelve true men, the unadulterated voice of

the people, responsible alone to God and their conscience, which should have been heard in the sanctuaries of justice, as fountains springing fresh from the lap of earth, became like waters constrained in their course by art, stagnant and impure. Until this weight hung upon the Constitution should be taken off, there was literally no prospect of enjoying with security those civil privileges which it held forth." (1 Const. Hist. of Eng. 315.) He further says, "I have found it impossible not to anticipate, in more places than one, some of those glaring transgressions of natural as well as positive law, that rendered our courts of justice in cases of treason, little better than the caverns of murderers. Whoever was arraigned at their bar was almost certain to meet a virulent prosecutor, a judge hardly distinguishable from the prosecutor, except by his ermine, and a passive, pusillanimous jury. Those who are acquainted only with our modern decent and dignified procedure, can form little conception of the irregularity of ancient trials, the perpetual interrogation of the prisoner, which justly gives us so much offence at this day in the tribunals of a neighboring kingdom, and the want of all evidence except written, and perhaps unattested examinations or confessions." (1 Const. Hist. of Eng. 312.)

It was under the reigns of the arbitrary Tudors and Stuarts that bad precedents were most made and followed, and juries were most coerced by hunger, thirst, fines, and imprisonment, but this course of tyrannical procedure was in a great measure brought to an end by the trial of William Penn and William Mead, at an Oyer and Terminer Court, held in the Old Bailey in London, in 1670, and in the hearing of Edward Bushel, one of the jurors, brought up from prison on Habeas Corpus, before the Judges of the Common Pleas. On the trial of Penn and Mead, they were rudely and insolently treated by the Court, but they as resolutely maintained their rights, and those of the jury under Magna Charta. The charge against those Friends was the holding an unlawful and tumultuous assembly in Grace Church Street; where they had but assembled to worship God as near as they could to their meeting-house, which the civil authority had closed against them. The jury, some of whom had caught the liberty-loving spirit of Penn, after deliberation, declared that they could not agree. The uncomplying four were ordered into court, one of whom was Bushel, and after being roundly abused, retired again to deliberate, and returned with the verdict as to Penn, "Guilty of speaking in Grace Church Street;" and as to Mead, "Not guilty." This was an unavailable verdict as to Penn. The recorder abused

the jury for being led by Bushel, and said to them, "You shall not be dismissed till you bring in a verdict which the court will accept. You shall be locked up, without meat, drink, fire, and tobacco. We will have a verdict by the help of God, or you shall starve for it." The contest lasted from the 1st to the 5th of September, and ended in the jury finding a verdict as to both prisoners of not guilty; in the prisoners and jurors being amerced by the court forty marks a man, and the commitment of the jurors to Newgate. After long and learned discussion of the rights of jurors upon the Habeas Corpus, Chief Justice Vaughan "delivered the opinion of the greatest part of the judges," "that the prisoners ought to be discharged," "because the jurors may know that of their own knowledge, which might guide them to give their verdict contrary to the sense of the court." (Freeman's Reps. 5.)

It is true, that in ancient times, according to the ground of this decision, jurors were taken from the vicinage, that they might act upon their own knowledge, as well as upon the evidence they heard in court; but in this age, of an improved system, it is intended that every cause shall be tried on the evidence heard in court in presence of the parties, yet if jurors have knowledge of facts pertinent to the issue in trial, it is their duty to state such knowledge, and testify as witnesses as well as try the cause. The reason given in Bushel's case, for the right of the jury to find against the views of the court is never heard in the present age; nor would any one deny in this age, the power of the jury over the whole cause, after hearing the charge of the court in criminal causes.

This victory of Penn's jury was gained by a minority of one-third the jurors; first over their eight fellow-members, next over their judges and the Crown prosecution; a victory worth more to human liberty than many ordinary well-fought battles in which thousands are slain.

While yet the Stuarts reigned, Lord Hale, in his Pleas of the Crown, stated the rule as to verdicts to be this: "If there be eleven agreed, and but one dissenting, who says he will rather die in prison, yet the verdict shall not be taken by eleven; nor yet the refuser fined or imprisoned, and therefore, where such a verdict was taken by eleven, and the twelfth fined and imprisoned, it was upon great advice ruled the verdict was void, and the twelfth man delivered, and a new *venire* awarded; for men are not to be forced to give their verdict against their judgment." (2 Hale's P. C. 297.) This decision "upon great advice," was made in the 41 Edward III,

or in 1368; and was thus pronounced to be the continuing law of England by Chief Justice Hale, in the same reign of Charles II, when Penn and Mead were tried, and Bushel discharged; consequently, that all arbitrary proceedings in intermediate reigns at variance with it, had been usurpations.

Unanimity is to be attained, or no verdict results. The jury is to be kept together until they have made earnest efforts at a reconciliation of opinion; but what their verdict shall be, or whether there be any, must depend upon themselves alone. They may be unable to agree, and after due effort, they will in civil cases be discharged by the court, or they may give an erroneous verdict against the weight of evidence, or contrary to the direction of the court in law, and then their verdict in a civil case will be set aside, and the issue be tried by another jury. But the opinion of the jury cannot be coerced.

In the trial of persons charged with the higher degrees of crimes, there is more ground for a charge of a physical coercion upon the jurors. In civil cases, the judge is expressly authorized by statute to discharge the jury because they cannot agree. In capital cases, he cannot merely for that reason discharge them. (6 S. & R. 577; 3 R. 498.) Our Constitution declares, in consonance with the common law, that "no person for the same offence shall be twice put in jeopardy of life or limb;" and to commit his case to two juries is to put him twice in jeopardy. To discharge the jury is, therefore, to discharge the prisoner. This is a discretion that judges disclaim, and it is obviously a dangerous one. But although the jury cannot be discharged because they cannot agree to convict or acquit the prisoner, the judge must act to discharge the jury trying a capital charge, in a case of *absolute necessity*; and that necessity arises when the health or life of a juror is in peril. Chief Justice Tilghman says, "No one can think for a moment that they are to be starved to death. God forbid that so absurd and inhuman a principle should be contended for. Very far from it. The moment it is made to appear to the court, by satisfactory evidence, that the health of a single juryman is so affected as to incapacitate him to do his duty, a case of necessity has arisen which authorizes the court to discharge the jury." (6 S. & R. 587.) And that such necessity may not arise, the court will allow a reasonable supply of food and nourishment, as a right of the jurors. (3 Rawle, 503.) There exists, therefore, in the trial of high crimes, a pressure of physical bearing, namely, of only a seclusion under the charge of a sworn officer, until they agree, or health gives way. And is not this better and safer than that a majority

should quickly find the prisoner guilty of a capital offence, while the minority held a different opinion, or had doubts of his guilt? Is it not better that several guilty persons should escape, than that one innocent should be sacrificed? And what duty is there that is not better performed by some physical sacrifice, and more willingly endured, that the duty is a most responsible one? There are few moral, religious, or legal duties performed under sacrifice of comfort and through abstinence, that are not performed with clearer intellects and a more exalted sense of duty. And when jurors are charged with the life of a fellow-being, what is the suffering of confinement or abstinence compared with their faithful discharge of duty towards him and the Commonwealth, on the one hand, to protect society from the return to it of the guilty, again to commit wrongs upon it; on the other, to save innocence from an ignominious and suffering death? Conscientious men, in case of difficulty, would rather wish to test their fidelity to their consciences and their country, by an ordeal of suffering, than to act with a doubtful precipitancy. How earnestly and faithfully jurors act, and how much they will sacrifice to the Divine sense of duty implanted in the human breast, we often see exemplified, and in the case from which has just been cited the expression of Chief Justice Tilghman, one of our former wealthiest and most public-spirited fellow-citizens, Henry Pratt, the foreman of the jury, who possessed everything that could contribute to the happiness of life, declared to the court that he "would perish before he agreed to a verdict that was against his judgment." (6 S. & R. 578.)

The late Judge James Wilson, in his course of lectures on law, with a benevolent sympathy for jurors placed under a strong obligation of attaining a unanimous result, has endeavored to state those principles of action which should or may govern them, and facilitate their conclusion. He says, "To the conviction of a crime, the undoubting and unanimous sentiment of the twelve jurors is of indispensable necessity. In civil causes, the sentiment of *a majority* of the jurors forms the verdict of the jury, in the same manner as the sentiment of a majority of the judges forms the judgment of the court." He means by this, that when the genuine sentiment of a majority of the twelve is ascertained, the minority should acquiesce, and take the opinion of the majority as the verdict of the whole, as the opinion of a majority of the judges is the decision of the court. But the cases are not parallel. The dissentient judges express their dissent, and are in nowise responsible for the judgment. But the

conscience and oath of each juror who joins in the verdict, is pledged for its truth and justice to the parties, to society, and to God. He is bound to strive for the reconcilement of truth, justice, and unanimity, or to refuse his consent to the verdict, and leave the whole matter to the trial of other jurors, or to acquit the accused, if there be a doubt of his guilt. Each juror in acquitting his conscience of the incumbent duty, must judge for himself, as he will answer to man and to God, and acting under the most solemn sense of duty, his mind must be felt in the result. He cannot acquit himself to himself or his Maker by adopting the opinion of others. He may modify and make concession as his conviction is changed, but not because seven others differ from him. Majorities upon continued effort are often convinced that they have been in error, and join the minority. The rule of unanimity imposes the necessity of an effort to convince, since a wilful majority cannot carry the verdict upon the mere strength of numbers.

The power of the Legislature to change the number and principle of unanimity in the finding of juries, was submitted to the Judges of the Supreme Judicial Court of New Hampshire, who in June, 1860, in their opinion say, at the date of the adoption of the Constitution, "Such a thing as a jury of less than twelve men, or a jury deciding by a less number than twelve voices, had never been known, or ever been the subject of discussion in any country of the common law. Upon these views we are of opinion that no body less than twelve men, though they should by law be denominated a jury, would be a jury within the meaning of the Constitution; nor would a trial by such a body, though called a trial by jury, be such within the meaning of that instrument. We think, therefore, that the Legislature have no power so to change the law in relation to juries, as to provide that petit juries may be composed of a less number than twelve, nor to provide that a number of the petit jury less than the whole number, can render a verdict in any case where the Constitution gives to the party a right to a trial by jury. They say that four States by their highest courts had decided in the same way." (23 Law Reports, 460.) These judges and those courts thus emphatically say, that an institution and a principle which the Constitutions of the Union and the States have made fundamental and sacred, for liberty and security, are not lightly to be touched by unhallowed hands. The former seem, indeed, not to have been aware of the efforts made in former bad times to make available the voice

of the majority, or to "afforce the assise," by abstracting the recusant, and adding in their place the willing tools of power; but their judgment as to all right and lawful proceedings, standing as authoritative precedents in the law, was sound, just, true, and in accord with their fealty to this inestimable institution of English and American common law.

And when such an attempt at innovation and reform was made in the British Parliament, it was opposed by Lord Lyndhurst, in language in which he contrasted the present milder and juster proceedings in trials for political offences, with those he had witnessed at the beginning of this century. "We may," said he, "be perfectly satisfied with our present, but unfortunately, I have lived in times of a different character. I have seen the time when the government was carried on upon arbitrary, and even tyrannical principles; when political prosecutions were of constant occurrence, and were conducted with extreme harshness, and punishments of great severity were inflicted for political offences. I have been myself, to a certain extent, not merely a witness, but an actor in those times. The growing prosperity of the country, producing a greater amount of content, has caused a change from the feelings that then prevailed. But, my lords, we must not so far delude ourselves as to suppose that such a state of things can never again arise. Violent political feelings may again be excited, and who can venture to say that a similar state of things may not again occur? At all events, let us not, acting under such a delusion, take any steps towards destroying the bars and fences the Constitution has given against the exercise of arbitrary power." This solemnly warning language of an English peer, of American birth, is as applicable in republican America as in monarchical England.

A verdict by majority would be dangerous from the too ready facility of attaining it. It would then be but the product of the first impression, and that often the impulse of feeling. The minority would be disregarded, and could not check undue impulsiveness, nor command a prolonged or mature deliberation. This would be the result in mere questions of property, and in the assessment of damages, where the feelings have been excited by artful and eloquent counsel, would be fearfully dangerous. But it would, in cases of a political cast, in times of high political excitement, be unendurable and fatal to liberty. It would be better that there should be no political convictions, than that they should be attained at such a cost. It is in this aspect that the institution has received its highest

encomiums, as a power resistant to tyranny. Our Judge Addison said: "Jury trials may be disused, from disuse may be forgotten, and this pillar of our liberties being removed, we may forget that we were free." (57.) Judge Blackstone explained the antiquity and praised the excellence of this trial for settling questions of property, and then proceeds to say, as to its value to liberty and security, "It will hold much stronger in criminal cases; since in times of difficulty and danger, more is to be apprehended from the violence and partiality of judges appointed by the Crown, in suits between the king and the subject, than in suits between one individual and another, to settle the metes and bounds of private property. Our law has, therefore, wisely placed this strong and twofold barrier, of a presentment and a trial by jury, between the liberties of the people and the prerogative of the Crown." "The founders of the English law have with excellent forecast contrived that no man should be called to answer to the King for any capital crime, unless upon the preparatory accusation of twelve or more of his fellow-subjects, the grand jury; and that the truth of every accusation, whether preferred in the shape of an indictment, information, or appeal, should afterwards be confirmed by the *unanimous suffrage of twelve* of his equals and neighbors, indifferently chosen and superior to all suspicion. So that the liberties of England cannot but subsist so long as this palladium remains sacred and inviolate, not only from all open attacks, which none will be so hardy as to make, but also from all secret machinations which may sap and undermine it, by introducing new and arbitrary methods of trial, by justices of the peace, commissioners of the revenue, and courts of conscience." (4 Com. 349.)

Judge Story, in his Commentaries upon the Constitution, quotes with high approval these sentiments of Blackstone upon trial by jury, and proceeds to say, "Mr. Justice Blackstone, with the warmth and pride of an Englishman living under its blessed protection, has said: 'A celebrated French writer, who concludes that because Rome, Sparta, and Carthage have lost their liberties, therefore those of England in time must perish, should have recollected that Rome, Sparta, and Carthage, at a time when their liberties were lost, were strangers to the trial by jury.'" (2 Story on Con. § 1780.) The writer thus referred to was Montesquieu, who after dwelling upon the English Constitution with an enthusiastic admiration, pauses in sadness to make this solemn reflection: "As all human things have an end, the state we are speaking of will lose its liberty; it will perish. Have not Rome, Sparta, and Carthage perished? It will perish

when the legislative power shall be more corrupted than the executive." This melancholy warning is at this moment as applicable to us, as ever it was to England; and if the trial by jury be the main bulwark for the defence of our liberties, God grant in His goodness that, in the words of our Constitution, it may forever remain inviolate; and to remain inviolate, it must be untouched in any of its principles. We have, I believe, and with the deepest humiliation I make the admission in the hope of the remedy, already in our brief history literally fulfilled that only condition which the French philosopher and patriot places before a national downfall; for already our legislatures are more corrupt than our executives, and our only hope of rescue remains in our executives, more pure than the legislative power, in the untouched integrity of our judiciaries, and in the virtue of the body of the people, who give that virtue expression more surely through the verdicts of their juries, than in the exercise of their elective franchise, or by their legislative action.

Mr. Peale presented to the notice of the Society, a box of stone implements, taken by Mr. John Evans of England, with his own hands, from the gravel-pits of St. Acheuil, near Amiens; and also, for comparison, a number of specimens from his own collection of American Indian remains. It was evidently characteristic of the European specimens, that they were of larger size, and all of them formed from the flints of the Cretaceous formation. Members present expressed their conviction that the forms were artificial.

Mr. Foulke exhibited a copy of the "Pharmacopœia Londinensis Collegarum. *Hodie viventium studiis ac Symbolis ornatior.* Londini. Typis *W. Bentley*, impensis *L. Sadler. et R. Beaumont. An.* 1668," a curious 16° (about 4 inches by 2) of 349 pages, with an *Index Remediorum*, which he presented for the Library of the Society.

Mr. Foulke stated that he had designed to offer some remarks suggested by the formulæ of this Pharmacopœia, respecting the relations of medical science and art to the general condition of science and art in England at the date of the

little volume (1668), but that he had been prevented by ill health.*

Mr. Foulke invited the attention of the Society to the impressive contrast afforded by the "Dispensatory of the

* Opposite the title is written "Ex libris Johannis Foulke." Dr. Foulke (the same gentleman who was subsequently one of the officers of this Society) probably obtained the book during his visit to London, at the date of his letters of introduction to Dr. Franklin, which are now in the Franklin MSS. collection of the Society.

On the fly-leaf is the autograph of Peter Renaudet, London, 1749. This was four years after the publication of the "Plan of a new London Pharmacopœia, proposed to the College of Physicians by their committee appointed for that purpose, Lond. 1745;" and two years after the publication of "Pharmacopœia Collegii Regalis Medicorum Londinensis. Lond. 1747" (both in the Pennsylvania Hospital Library). The Leyden Pharmacopœia followed in 1751; but Amsterdam had already published one in 1726. Fuller's P. Extemporanea, P. Bateana, and P. Domestica had appeared (the second time) in 1702, 1719, and 1723. Radcliff's Practical Dispensatory (4th ed.) appeared in 1721.

Quincy's P. Officinalis et extemporanea, or Complete English Dispensatory, appeared the third time in 1720, (eleven editions following before 1769, Claudier translating it in Paris in 1749), the same year with the second edition of Boerhaave's Materia Medica.

Salmon's London translation of Bates appeared the third time in 1706. Shipton's London edition of the P. Bateana was as early as 1688. Staphorst's Officina Chymica Londinensis appeared in 1685; and Labrosse's P. Persica in Paris in 1681. La Thériaque d'Andromachus par Charas had appeared at Paris in 1668 (the year of the Pharmacopœia presented by Mr. Foulke). Mynsicht had published a similar "Thesaurus" at Lubeck in 1662, and Hernandes at Rome in 1651.

Culpeper's "Physical Directory, or translation of the Dispensatory made by the College of Physicians in London, and by them imposed upon all the apothecaries of England, to make up their medicines by," had reached its second edition in 1650. About the same time (1653), at Rotterdam, appeared Zwelfer's P. Augustana Reformata. But we must go back to 1567 for the appearance of the Q. Sereni Samonici de Medicina Præcepta Saluberrima, at London; and to 1537 for the Villanovani Syruporum Universa Ratio, at Paris.

United States," prepared by Drs. Wood and Bache, two of the Presidents of the Society. The progress during the last two centuries, not only of Botany and Mineralogy and other sources of the Materia Medica, but of the general methods of science, is remarkably illustrated by a comparison of the two books.

Pending nomination No. 494 was read:

And the Society was adjourned.

Stated Meeting, May 15, 1863.

Present, seventeen members.

Dr. Wood, President, in the chair.

Letters accepting membership were received from William Dwight Whitney, dated New Haven, April 21st; from E. A. Washburne, dated Philadelphia, May 2d; and from James Pollock, dated Philadelphia, May 14th, 1863.

Letters to the Librarian, inclosing photographs of the writers, were read, from B. Silliman, Sr., of New Haven, Josiah Quincy, of Boston, and Gen. Swift, of Geneseo, in the State of New York.

Donations for the Library were announced from the Essex Institute, the Museum of Comparative Zoology, in Boston; the American Journal of Science and Art, Blanchard & Lea, and Dr. Parrish, of Philadelphia; Professor J. H. Alexander, of Baltimore, and the Academy of Sciences in St. Louis.

Mr. Dubois communicated the following remarks on assay-balances:

The recent receipt of two assay-beams at the Mint, procured for the use of Dr. Munson, assayer of the new branch Mint at Denver, in the Territory of Colorado, furnishes occasion for a few remarks on the progress of this delicate branch of art.

Thirty-one years ago, when Mr. Eckfeldt, the present assayer of the Mint, entered upon that office, he found that the beam on which all his operations were to turn, would not itself turn with a less weight than about the one-fiftieth part of a grain. Consequently, the nearest report of the fineness of gold was by gradations of one