

consist of a Madonna and Child (left imperfect because the marble was short in bulk), and of the two famous monumental groups, each consisting of an armed and seated portrait-statue in a niche, with two emblematic figures reclining on each side of a sarcophagus below. The portraits are treated not realistically but typically. In that of Lorenzo seems to be typified the mood of brooding and concentrated inward thought preparatory to warlike action; in that of Giuliano, the type of alert and confident practical survey immediately preceding the moment of action. To this contrast of the meditative and active characters corresponds to some extent a contrast in the emblematic groups accompanying the portraits. At the feet of the Duke Giuliano recline the shapes of Night and Day,—the former a female, the latter a male personification,—the former sunk in an attitude of deep but uneasy slumber, the latter (whose head and face are merely blocked out of the marble) lifting himself in one of wrathful and disturbed awakening. But for Michelangelo's unflinching grandeur of style, and for the sense which his works convey of a compulsive heat and tempest of thought and feeling in the soul that thus conceived them, both these attitudes might be charged with extravagance. As grand, but far less violent, are those of the two companion figures that recline between sleep and waking on the sarcophagus of the pensive Lorenzo. Of these, the male figure is known as Evening, and the female as Morning (*Crepuscolo* and *Aurora*). In Michelangelo's original idea, figures of Earth and Heaven were to be associated with those of Night and Day on the monument of Giuliano, and others of a corresponding nature, no doubt, with those of the Morning and Evening Twilight on that of Lorenzo; these figures fell out of the scheme. Michelangelo's obvious and fundamental idea was, as some words of his own record, to exhibit the elements, and the powers of earth and heaven, lamenting the death of the princes; it is a question of much interest, but not to be discussed here, what other ideas of a more personal and deeper kind may have conflicted or come into association with these, and found expression in these majestic works of art, whereof no one who looks upon them can escape the spell.

Michelangelo had never ceased to be troubled by the heirs and executors of Julius, as well as by his own artistic conscience and ambition, concerning the long-postponed completion of the Julian monument. Agreement after agreement had been made, and then from the force of circumstances broken. In 1532, on the completion of the Medicean monuments at Florence, he entered into a new and what he firmly meant to be a binding contract to complete the work, on a scale once more very greatly reduced, and to set it up in the church of S. Pietro in Vincoli in Rome. But once more the demands of the pope diverted his purpose. Clement insisted that Michelangelo must complete his decorations of the Sistine chapel by painting anew the great end wall above the altar, adorned until then by frescos of Perugino. The subject chosen was the Last Judgment, and Michelangelo began to prepare sketches. For the next two years he lived between Rome and Florence, and in the autumn of 1534, in his sixtieth year, settled finally and for the remainder of his life at Rome. Immediately afterwards Pope Clement died, and was succeeded by a Farnese under the title of Paul III. Even more than his predecessor, Paul insisted on claiming the main services of Michelangelo for himself, and forced him to let all other engagements drift. For the first seven years after the artist's return to Rome, his time was principally taken up with the painting of the colossal and multitudinous Last Judgment. This being completed in 1541, he was next compelled to undertake two more great frescos, one of the Conversion of Paul and another of the Martyrdom of Peter, in a new chapel which the pope had caused to be built in the Vatican, and named after himself *Capella Paolina*.

The fresco of the Last Judgment in the Sistine chapel is probably the most famous single picture in the world. In it Michelangelo shows more than ever the omnipotence of his artistic science, and the fiery daring of his conceptions. The work exhibits the athletic unclothed human form in every variety and extremity of hitherto unattempted action and predicament. But of moderation, as well as of beauty and tenderness, it is almost entirely devoid. Whether from the complexion of his own thoughts, and the *seva indignatio* that was native to his breast, or from the influence of the passionate and embittered theological temper of the time, Michelangelo has here neglected the consolatory aspects of Christianity, and insisted on its terrific aspects almost exclusively.

Neither in the qualities of colour and execution is the work, so far as the condition of either admits comparison, comparable for charm to the earlier and far more nobly-inspired frescos of the ceiling. It is to these, and not to the Last Judgment, that the student must turn if he would realize what is best and greatest in the art of Michelangelo.

The frescos of the Pauline Chapel are on their part in part so injured as to be hardly susceptible of useful study or criticism. In their ruined state they bear evidence of the same tendencies that made the art of Michelangelo in its latest phase so dangerous an example to weaker men,—the tendency, that is, to seek for energy and violence of action both in place and out, for "terribleness" *quand même*, and to design actions not by help of direct study from nature, but by scientific deduction from the abstract laws of structure and movement. At best these frescos can never have been happy examples of Michelangelo's art.

During the fifteen years (1534-49) when Michelangelo was mainly engaged on these paintings, he had also at last been enabled to acquit himself, although in a manner that can have been satisfactory to none concerned, of his engagements to the heirs of Julius. Once more the influence of the pope had prevailed on them to accept a compromise altogether to their disadvantage. It was agreed that the Moses executed thirty years before should be the central figure of the new scheme; assistants were employed to carve two smaller flanking figures of female personifications; and the three were in 1545 set up in S. Pietro in Vincoli in combination with an architectural structure of rich but incongruous design. During the same years the long-pent human elements of fervour and tenderness in Michelangelo's nature had found vent and utterance such as they had never found before. He had occasionally practised poetry in youth, and there are signs of some transient love-passage during his life at Bologna. But it was not until towards his sixtieth year that the springs of feeling were fairly opened in the heart of this solitary, this masterful and stern, life-wearied and labour-hardened man. Towards that age we find him beginning to address impassioned sonnets, of which the sentiment is curiously comparable to that expressed in some of Shakespeare's, to a beautiful and gifted youth, Tommaso Cavalieri. Soon afterwards he made the acquaintance of the pious, accomplished, and high-souled lady, Vittoria Colonna, widow of the Marquis Pescara. For twelve years until her death, which happened in 1547, her friendship was the great solace of Michelangelo's life. On her, in all loyalty and reverence, he poured out all the treasures of his mind, and all his imprisoned powers of tenderness and devotion. He painted for her a crucifixion of extraordinary beauty, of which many imitations but not the original have come down to us. She was the chief inspirer of his poetry,—in which, along with her praises, the main themes are the Christian religion, the joys of Platonic love, and the power and mysteries of art. Michelangelo's poetical style is strenuous and concentrated like the man. He wrote with labour and much self-correction; we seem to feel him flinging himself on the material of language with the same overwhelming energy and vehemence,—the same impetuosity of temperament, combined with the same fierce desire of perfection,—with which contemporaries describe him as flinging himself on the material of marble.

And so the mighty sculptor, painter, and poet reached old age. An infirmity which settled on him in 1544, and the death of Vittoria Colonna in 1547, left him broken in health and heart. But his strength held on for many a year longer yet. His father and brothers were dead, and his family sentiment concentrated itself on a nephew, Leonardo, to whom he showed unremitting practical kindness, coupled with his usual suspiciousness and fitfulness of temper. In almost all his relations the old man continued to the end to manifest the same loyal and righteous heart, accompanied by the same masterful, moody, and estranging temper, as in youth. Among the artists of

the younger generation he held a position of absolute ascendancy and authority; nor was his example, as we have said, by any means altogether salutary for them. During the last years of his life he made but few more essays in sculpture, and those not successful, but was much employed in the fourth art in which he excelled, that of architecture. A succession of popes demanded his services for the embellishment of Rome. For Paul III. he built the palace called after the name of the pope's family the Farnese. On the death of Antonio da San Gallo he succeeded to the onerous and coveted office of chief architect of St Peter's Church, for which he remodelled all the designs, living to see some of the main features, including the supports and lower portion of the great central dome, carried out in spite of all obstacles according to his plans. Other great architectural tasks on which he was engaged were the conversion of a portion of the Baths of Diocletian into the church of Sta Maria degli Angeli, and the embellishment and rearrangement of the great group of buildings on the Roman Capitol. At length, in the midst of these vast schemes and responsibilities, the heroic old man's last remains of strength gave way. He died on the threshold of his ninetieth year, on the 18th of February 1564.

For the bibliography of Michelangelo, which is extensive, see the useful though very imperfect compilation of Passerini, *Bibliografia di Michelangelo Buonarroti*, &c., Florence, 1875. The most important works, taken in chronological order, are the following:—P. Giovio, supplement to the fragmentary *Dialogus de viris illis illustribus*, written soon after 1527, first published by Tiraboschi, *Storia della Letteratura italiana*, Modena, 1871; G. Vasari, in *Vite degli più eccellenti architettori, pittori, e scultori*, &c., Florence, 1550; A. Condivi, *Vita di Michelangelo Buonarroti*, 1553; this account, for which the author, a pupil and friend of the master's, had long been collecting materials, was much fuller than that of Vasari, who made use of it in rewriting his own life of Michelangelo for his second edition, which appeared after the master's death (1568). The best edition of Vasari is that by Milanesi, Florence, 1878-83; of Condivi, that by Gori and Mariette, Pisa, 1746. The first additions of importance were published by Bottari, *Raccolta di lettere sulla pittura*, &c., Rome, 1754 (2d ed., by Ticozzi, Milan, 1822); the next by Gaye, *Carteggio inedito*, 1840. Portions of the correspondence preserved in the Buonarroti archives were published by Guasti in his notes to the *Rime di Michelangelo Buonarroti*, 1863, and by Daelli in *Carte Michelangelesche inedite*, Milan, 1865. Complete biographies of Michelangelo had been meanwhile attempted by J. Harford, London, 1857, and with more power by Hermann Grimm, *Leben Michelangelo's*, Hanover (5th ed., 1879). A great increment of biographical material was at length obtained by the publication, in the four hundredth year after Michelangelo's birth, of the whole body of his letters preserved in the Buonarroti archives,—*Lettere di Michelangelo Buonarroti*, ed. G. Milanesi, Florence, 1875. This material was first employed in a connected narrative by A. Gotti, *Vita di Michelangelo*, Florence, 1875. Next followed C. Heath Wilson, *Life and Works of Michelangelo Buonarroti*, Florence, 1876, the technical remarks in which, especially as concerns the fresco-paintings, are valuable. Lastly, the combined lives of Michelangelo and Raphael by Professor A. Springer in Dohme's series of *Kunst u. Künstler*, Leipzig, 1878, contain the best biography of the master which has yet appeared. Of the poems of Michelangelo the best edition is that already referred to,—G. Guasti, *Rime di Michelangelo Buonarroti*, 1863; in earlier additions the text had been recklessly tampered with, and the rugged individuality of the master's style smoothed down. An edition with German translations was published by Hasenclever, Leipzig, 1875; for the English student the translations by Mr J. A. Symonds, in *Sonnets of Michelangelo and Campanella*, London, 1878, are invaluable. (S. C.)

MICHELET, JULES (1798-1874), one of the most voluminous and remarkable writers of France, and one who only lacked a keener power of self-criticism to make him one of the greatest, was born at Paris, August 21, 1798. He belonged to a family which had Huguenot traditions, and which was latterly occupied in the art of printing. His father was a master printer, but seems not to have been very prosperous, and the son at an early age assisted him in the actual work of the press. A place was offered him in the imperial printing office, but his father was able to

send him to the famous Collège or Lycée Charlemagne, where he distinguished himself. He passed the university examination in 1821, and was shortly after appointed to a professorship or rather mastership of history in the Collège Rollin. Soon after this, in 1824, he married. The period of the Restoration and the July monarchy was one of the most favourable to rising men of letters of a somewhat scholastic cast that has ever been known in France, and Michelet had powerful patrons in Villemain, Cousin, and others. But, though he was an ardent politician (having from his childhood embraced republicanism and a peculiar variety of romantic free-thought), he was first of all a man of letters and an inquirer into the history of the past. His earliest works were school books, and they were not written at a very early age. Between 1825 and 1827 he produced divers sketches, chronological tables, &c., of modern history. His *Précis* of the subject, published in the last-mentioned year, is a sound and careful book, far better than anything that had appeared before it, and written in a sober yet interesting style. In the same year he was appointed maitre de conférences at the Ecole Normale. Four years later, in 1831, the *Introduction à l'Histoire Universelle* showed a very different style, exhibiting no doubt the idiosyncrasy and literary power of the writer to greater advantage, but also displaying the peculiar visionary qualities which make Michelet the most stimulating but the most untrustworthy (not in facts, which he never consciously falsifies, but in suggestion) of all historians. The events of 1830 had unmuzzled him, and had at the same time improved his prospects, and put him in a better position for study by obtaining for him a place in the Record Office, and a deputy-professorship under Guizot in the literary faculty of the university. Very soon afterwards he began his chief and monumental work, the *Histoire de France*, which occupied him for about forty years, and of which we shall speak presently. But he accompanied this with numerous other works, chiefly of erudition, such as the *Œuvres Choieses de Vico*, the *Mémoires de Luther écrits par lui-même*, the *Origines du Droit Français*, and somewhat later the *Procès des Templiers*. 1838 was a year of great importance in Michelet's life. He was in the fulness of his powers, his studies had fed his natural aversion to the principles of authority and ecclesiasticism, and at a moment when the revived activity of the Jesuits caused some real and more pretended alarm he was appointed to the chair of history at the Collège de France. Assisted by his friend Quinet, he began a violent polemic against the unpopular order and the principles which it represented, a polemic which made their lectures, and especially Michelet's, one of the most popular resorts of the day. He published, in 1839, a History of the Roman Republic, but this was in his graver and earlier manner. The results of his lectures appeared in the volumes *Le Prêtre, la Femme, et la Famille* and *Le Peuple*. These books do not display the apocalyptic style which, borrowed to a certain though no very great extent from Lamennais, characterizes Michelet's later works, but they contain in miniature almost the whole of his curious ethico-politico-theological creed—a mixture of sentimentalism, communism, and anti-sacerdotalism, supported by the most eccentric arguments, but urged with a great deal of eloquence. The principles of the outbreak of 1848 were in the air, and Michelet was not the least important of those who condensed and propagated them: indeed his original lectures were of so incendiary a kind that the course had to be interdicted. But when the actual revolution broke out Michelet, unlike many other men of letters, did not attempt to enter on active political life, and merely devoted himself more strenuously to his literary work. Besides continuing the great history, he undertook and

carried out, during the years between the downfall of Louis Philippe and the final establishment of Napoleon III., an enthusiastic *Histoire de la Révolution Française*. Despite or because of its enthusiasm, this is by no means Michelet's best book. The events were too near and too well known, and hardly admitted the picturesque sallies into the blue distance which make the charm and the danger of his larger work. In actual picturesqueness as well as in general veracity of picture, the book cannot approach Carlyle's; while as a mere chronicle of the events it is inferior to half a dozen prosaic histories older and younger than itself. The *coup d'état* lost Michelet his place in the Record Office, as, though not in any way identified with the republic administratively, he refused to take the oaths to the empire. But the new régime only kindled afresh his republican zeal, and his second marriage (with Mademoiselle Adèle Malaret, a lady of some literary capacity, and of republican belongings) seems to have further stimulated his powers. While the history steadily held its way, a crowd of extraordinary little books accompanied and diversified it. Sometimes they were expanded versions of its episodes, sometimes what may be called commentaries or companion volumes. In some of the best of them natural science, a new subject with Michelet, to which his wife is believed to have introduced him, supplies the text. The first of these (by no means the best) was *Les Femmes de la Révolution* (1854), in which Michelet's natural and inimitable faculty of dithyrambic too often gives way to tedious and not very conclusive argument and preaching. In the next, *L'Oiseau* (1856), a new and most successful vein was struck. The subject of natural history was treated, not from the point of view of mere science, nor from that of sentiment, nor of anecdote, nor of gossip, but from that of the author's fervent democratic pantheism, and the result, though, as was to be expected, unequal, was often excellent. *L'Insecte*, in the same key, but duller, followed. It was succeeded by *L'Amour* (1859), one of the author's most popular books, and not unworthy of its popularity, but perhaps hardly his best. These remarkable works, half pamphlets half moral treatises, succeeded each other as a rule at the twelve months' interval, and the succession was almost unbroken for five or six years. *L'Amour* was followed by *La Femme* (1860), a book on which a whole critique of French literature and French character might be founded. Then came *La Mer* (1861), a return to the natural history class, which, considering the powers of the writer and the attraction of the subject, is perhaps a little disappointing. The next year (1862) the most striking of all Michelet's minor works, *La Sorcière*, made its appearance. Developed out of an episode of the history, it has all its author's peculiarities in the strongest degree. It is a nightmare and nothing more, but a nightmare of the most extraordinary verisimilitude and poetical power.

This remarkable series, every volume of which was at once a work of imagination and of research, was not even yet finished, but the later volumes exhibit a certain falling off. The ambitious *Bible de l'Humanité* (1864), an historical sketch of religions, has but little merit. In *La Montagne* (1868), the last of the natural history series, the tricks of staccato style are pushed even farther than by Victor Hugo in his less inspired moments, though—as is inevitable in the hands of such a master of language as Michelet—the effect is frequently grandiose if not grand. *Nos Fils* (1869), the last of the string of smaller books published during the author's life, is a tractate on education, written with ample knowledge of the facts and with all Michelet's usual sweep and range of view, but with visibly declining powers of expression. But in a book published posthumously, *Le Banquet*, these powers reappear at their fullest. The picture of the industrious and

famishing populations of the Riviera is (whether true to fact or not) one of the best things that Michelet has done. To complete the list of his miscellaneous works, two collections of pieces, written and partly published at different times, may be mentioned. These are *Les Soldats de la Révolution* and *Légendes Démocratiques du Nord*.

The publication of this series of books, and the completion of his history, occupied Michelet during both decades of the empire. He lived partly in France, partly in Italy, and was accustomed to spend the winter on the Riviera, chiefly at Hyères. At last, in 1867, the great work of his life was finished. As it is now published it fills nineteen volumes. The first of these deals with the early history up to the death of Charlemagne, the second with the flourishing time of feudal France, the third with the 13th century, the fourth, fifth, and sixth with the Hundred Years' War, the seventh and eighth with the establishment of the royal power under Charles VII. and Louis XI. The 16th and 17th centuries have four volumes apiece, much of which is very distantly connected with French history proper, especially in the two volumes entitled *Renaissance* and *Réforme*. The last three volumes carry on the history of the 18th century to the outbreak of the Revolution. The characteristics which this remarkable history shares with Michelet's other works will be noted presently. At present it may be remarked that, as the mere division of subjects and space would imply, it is planned on very original principles. Michelet was perhaps the first historian to devote himself to anything like a picturesque history of the Middle Ages, and his account is still the most vivid though far from the most trustworthy that exists. His inquiry into manuscript and printed authorities was most laborious, but his lively imagination, and his strong religious and political prejudices, made him regard all things from a singularly personal point of view. Circumstances which strike his fancy, or furnish convenient texts for his polemic, are handled at inordinate length, while others are rapidly dismissed or passed over altogether. Yet the book is undoubtedly the only history of France which bears the imprint of genius, and in this respect it is not soon likely to meet a rival.

Uncompromisingly hostile as Michelet was to the empire, its downfall and the accompanying disasters of the country once more stimulated him to activity. Not only did he write letters and pamphlets during the struggle, but when it was over he set himself to complete the vast task which his two great histories had almost covered by a *History of the Nineteenth Century*. He did not, however, live to carry it further than Waterloo, and the best criticism of it is perhaps contained in the opening words of the introduction to the last volume—"Page me presse." The new republic was not altogether a restoration for Michelet, and his professorship at the Collège de France, of which he contended that he had never been properly deprived, was not given back to him. He died at Hyères on the 9th of February 1874, and an unseemly legal strife between his representatives took place as to his funeral.

The literary characteristics of Michelet are among the most clearly marked and also among the most peculiar in French literature. A certain resemblance to Lamennais has been already noted, and to this may be added an occasional reminiscence of the manner of Bossuet. But in the main Michelet, even in the minor details of style, is quite original and individual. His sentences and paragraphs are as different as possible in construction and rhythm from the orderly architecture of French classical prose. A very frequent device of his (somewhat abused latterly) is the omission of the verb, which gives the sentence the air of a continued interjection. Elsewhere he breaks his phrase, not finishing the regular clause at all. In these points and many others the resemblance to his contemporary Carlyle is very striking; and, different as were their points of view, their manners of seeing were by no means unlike. History to Michelet is always picturesque; it is a series of tableaux. Allusion has been already made to the singular per-

spective in which these tableaux are drawn, a perspective so strange that a reader unacquainted with the actual size and relation of the objects represented is certain to be deceived. Nothing indeed is further from Michelet's purpose than deceit. Although a strong republican, an ardent anti-sacerdotalist, and a patriot of fanatical enthusiasm, he is always scrupulously fair as far as he understands what he is doing. For instance, his hatred for England and Englishmen is one of the most comically intense passions in literature. He is never tired of exclaiming against their diabolical pride, their odious jealousy of France, their calculating covetousness, and so forth. In his excited imagination the long drama of European history is a kind of conflict of Ormuzd and Ahriman, in which France, it is needless to say, plays the first part and England the second. Yet he is never unfair to English fortitude and coolness, never (after the childish fashion of some of his countrymen) slurs over English victories, and often expresses genuine admiration (mixed, it is true, with a shudder or two of aversion) for the masterful ways and constantly advancing prosperity of the English people. So, with all his dislike to the priesthood, he never is chary of praise to pope or monk whenever it can fairly be given, and, with all his republicanism, he is never weary of worshipping the heroism of a great king. But his poetical fashion of dealing with events, his exaggeration of trivial incidents into great facts of history, his fixed ideas, especially in reference to the intellectual and social condition of mediæval times, the evils of which he enormously exaggerates, and his abiding prejudices of a general kind combine to distort his accounts in the strangest fashion. A laborious person might pick out of contemporary authors a notable collection of erroneous views of which Michelet is not so much the author as the suggester, for it is when his brilliant exaggerations are torn from their context and set down in some quite other context as sober gospel that they are most misleading to those who do not know the facts, and most grotesque to those who do. This is especially the case in regard to literature. Michelet began his great work too early to enjoy the benefit of the resurrection of old French literature which has since taken place; and though his view of that literature partakes of the amorous enthusiasm which colours his view of everything French, it is astoundingly incorrect in detail. The most remarkable passage of all perhaps is the passage in his *Renaissance* relating to Rabelais, Ronsard, and Du Bellay, a passage so widely inconsistent not only with sound criticism but with historic fact that the author (a very rare thing with him) makes a kind of half apology for it elsewhere. Of the work of the age of chivalry proper, the chansons de gestes, the Arthurian romances, the early lyrics and dramas, he evidently knew but little, and chose to subordinate what he did know to his general theories of the time. Even much later his praise and blame, though transparently honest, are quite haphazard. Unless, therefore, the reader be gifted with a very rare faculty of applying the "grain of salt" to what he reads, or unless he be well acquainted with the actual facts before coming to Michelet's version of them, he will almost certainly be misled. But despite this grave drawback (which attends all picturesque history) the value of Michelet merely as an historian is immense. Not only are his separate tableaux, the wonderful geographical sketch of France in the beginning of the book, the sections devoted to the Templars, to Joan of Arc, to the Renaissance, to the Camisards, almost unequalled, but the inspiring and stimulating effect of his work is not to be surpassed. If his reconstruction is often hazardous and conjectural, sometimes definitely and demonstrably mistaken, and nearly always difficult to adjust entirely to the ascertained facts, it is always possible in itself, always instinct with genius, and always life-like. There are no dead bones in Michelet; they are if anything only too stirring and lively. These criticisms apply equally to the minor books, though these are necessarily fuller of the author's somewhat wearisome propaganda, and less full of brilliantly painted facts. The great fault of Michelet as of not a few other modern authors is the comparatively improvised and ephemeral character of too much of his work. His immense volume is, much of it, mere brilliant pamphleteering, much more mere description equally brilliant but equally liable to pass. Nevertheless he is (especially in French, the language *par excellence* of measured and academic perfection) so characteristic and singular a figure in his turbid eloquence and fitful flashing insight that he is never likely to lose a place, and a notable one, in literary history.

Almost all Michelet's works, the exceptions being his translations, compilations, &c., are published in uniform size and in about fifty volumes, partly by Marpon and Flammarion, partly by Calmann Lévy.

MICHELL, JOHN, an eminent English man of science of the 18th century. He received his university education at Queen's College, Cambridge. His name appears fourth in the Tripos list for 1748-49; and in 1755 he was moderator in that examination. He was a fellow of his college, and became successively Woodwardian professor of geology (in 1762) and rector of Thornhill in Yorkshire.

He was elected a member of the Royal Society in the same year as Henry Cavendish (1760). He died in 1793. In 1750 he published at Cambridge a small work of some eighty pages, entitled *A Treatise of Artificial Magnets, in which is shown an easy and expeditious method of making them superior to the best natural ones*. Besides the description of the method of magnetization which still bears his name, this work contains a variety of acute and accurate magnetic observations, and is particularly distinguished by a lucid exposition of the nature of magnetic induction. He is now best known as the original inventor of the torsion balance, which afterwards became so famous in the hands of its second inventor Coulomb. Michell described it in his proposal of a method for obtaining the mean density of the earth. He did not live to put his method into practice; but this was done by Henry Cavendish, who made, by means of Michell's apparatus, the celebrated determination that now goes by the name of Cavendish's experiment (*Phil. Trans.*, 1798).

Michell's other contributions to science are—"Conjectures concerning the Cause and Observations upon the Phenomena of Earthquakes," *Phil. Trans.*, 1760; "Observations on the Comet of January 1760 at Cambridge," *Ib.*, 1760; "A Recommendation of Hadley's Quadrant for Surveying," *Ib.*, 1765; "Proposal of a Method for measuring Degrees of Longitude upon Parallels of the Equator," *Ib.*, 1766; "An Inquiry into the Probable Parallax and Magnitude of the Fixed Stars," *Ib.*, 1767; "On the Twinkling of the Fixed Stars," *Ib.*, 1767; "On the Means of Discovering the Distance, Magnitude, &c., of the Fixed Stars," *Ib.*, 1784.

MICHELOZZI, MICHELOZZO (1391-1472?), was a Florentine by birth, the son of a tailor, and in early life a pupil of Donatello. He was a sculptor of some ability in marble, bronze, and silver. The statue of the young St John over the door of the Duomo at Florence, opposite the Baptistery, is by him; and he also made the beautiful silver statuette of the Baptist on the altar-frontal of San Giovanni. Michelozzi's great friend and patron was Cosimo I. dei Medici, whom he accompanied to Venice in 1433 during his short exile. While at Venice, Michelozzi built the library of San Giorgio Maggiore, and designed other buildings there. The magnificent Palazzo dei Medici at Florence, built by Cosimo, was designed by him; it is one of the noblest specimens of Italian 15th-century architecture, in which the great taste and skill of the architect has combined the delicate lightness of the earlier Italian Gothic with the massive stateliness of the Classical style. With great engineering skill Michelozzi shored up, and partly rebuilt, the Palazzo Vecchio, then in a ruinous condition, and added to it many important rooms and staircases. When, in 1437, through Cosimo's liberality, the monastery of San Marco at Florence was handed over to the Dominicans of Fiesole, Michelozzi was employed to rebuild the domestic part and remodel the church. For Cosimo I. he designed numerous other buildings, mostly of great beauty and importance. Among these were a guest-house at Jerusalem, for the use of Florentine pilgrims, Cosimo's summer villa at Careggi, and the strongly fortified palace of Cafaggiuolo in Mugello. For Giovanni dei Medici, Cosimo's son, he built a very large and magnificent palace at Fiesole. In spite of Vasari's statement that he died at the age of sixty-eight, he appears to have lived till 1472. He is buried in the monastery of San Marco, Florence. Though skilled both as a sculptor and engineer, his fame chiefly rests on his architectural works, which claim for him a position of very high honour even among the greatest names of the great 15th-century Florentines.

MICHIGAN, one of the States of the American Union, situated in the region of the great lakes. It lies between 41° 42' and 47° 32' N. lat.; and 82° 24' and 90° 31' W. long., the centre of the State being 670 miles north of west from New York, the nearest point on the seaboard. The area is 58,915 square miles. The State consists of two