Mechanic's Magazine,

Museum, Register, Journal, & Gazette.

Bright as the pillar rose at Heaven's command,
When Israel march'd along the desert land,
Blazed through the night on lonely wilds afar,
And told the path—a never-setting star. *Campbell.*

No. 12.] SATURDAY, NOVEMBER 15, 1823. [Price 3*d*.

Public Meeting,

FOR THE ESTABLISHMENT OF

THE LONDON MECHANICS' INSTITUTE.

THE paramount importance to the whole Mechanics of the British empire of the proceedings which we are about to detail, will, we are assured, make all our readers well pleased to see the place usually occupied by an engraving, as well as every other corner of this week's Mechanic's Magazine, devoted to giving a full and accurate report of these proceedings.

The Public Meeting for taking into consideration the propriety of establishing a London Mechanics' Institution was held, agreeably to the invitation in our last and preceding Numbers, on the evening of Tuesday, the 11th inst. The large room of the Crown and Anchor Tavern, one of the very largest in the metropolis, was engaged for the occasion, and at the time appointed for taking the chair, it was completely filled. It is said to hold 2,500 persons; certainly more than 2,000 were present. We were glad to perceive that they consisted chiefly of that class for whose good the institution is intended, namely, *working mechanics*; and that they showed, by their conduct and demeanor, that they comprehended fully the serious magnitude of the object for which they were assembled, and came to the consideration of it with minds warmed apparently to enthusiasm in its support; yet keenly intent on examining and scrutinizing well the means by which they were to be invited to realize the promised good. It was a meeting of men resolved both *to think and act for themselves*. During the whole evening there was nothing but expressions of applause, and yet we did not observe one single instance of applause bestowed on a sentiment or proposition which did not deserve it. We should, perhaps, except the applause given to an offer from a professional lecturer to deliver a course of lectures on some branch of science *gratis*, though perhaps the cheers in this case were a token more of gratitude to the individual for his generous intentions, than of approbation of a condition so much at variance with what they had before declared should be the fundamental principle of the London Mechanics' Institution —*namely, that the mechanics should pay as well as they can for whatever instruction they are to receive.* The earnest, discriminating, and orderly attention with which they listened to the whole of the proceedings, exceeded any thing we had ever before witnessed in so numerous an assembly. Some two or three unhappy individuals, we are told, were indiscreet enough to intrude themselves in a state which utterly disqualified them from taking a part in the deliberations of rational men; and could they have been *lifted* forward, and exhibited on the table, they might, like the slaves of Sparta, who were made drunk for the purpose, have given *point* to many an excellent moral that fell from the speakers on the effects of a debasing intemperance; but no sooner were they observed by the

sober mechanics, who had come *on business* to the Meeting, than a number of them joining together, lifted the sots gently out of the room, as persons who had no business there. Incidental as this little fact is, it must speak volumes to all who were not present, as to the character of the Meeting by which the London Mechanics' Institution has been established.

We were also particularly well pleased to observe, among a number of individuals of wealth and eminence who came forward to lend the plan their countenance and support, many most respectable master-engineers, manufacturers, and tradesmen; evincing, by their presence, most unequivocally, that those ignorant feelings of jealousy and selfishness are fast disappearing, which have so long made employers falsely imagine, that they have an interest separate from those they employ, and that they do well in keeping their men as contentedly ignorant as possible of the principles of the operations in which they are engaged. When we mention the names of such men as Donkin, and Taylor, and Martineau, and Perkins, and Heath, and Bevan, and Galloway, as public approvers and supporters of this scheme, for affording to the humblest of operatives the fullest knowledge of the arts they practise, every one must see how great the triumph is, which liberal opinions have achieved over the prejudices of times yet scarcely gone by, when secret processes and high-walled manufactories, with double-barred gates, were all the fashion.

Nor should that meed of praise be withheld which is so justly due to other gentlemen who were present, who, though less connected than those we have named with mechanical pursuits, are not less sensible of the beneficial consequences which, in a public and national point of view, must be derived from an institution like the present. It was delightful to hear such active and intelligent members of the magistracy as Mr. Sheriff Laurie and Mr. Alderman Key testify the beneficial effects which would result from a wider dissemination of knowledge on the morals and condition of this great city. Nor could the cause of knowledge have been pleaded in a purer spirit of philanthropy than by those gentlemen of the bar, who, by their eloquent speeches on this occasion (more eloquent we have seldom heard) may have been the means of depriving themselves of many a future brief from profligacy and crime.

It may be scarcely necessary to add, that among the absent from the meeting, there were many (far more, we trust, than we can be possibly aware of) who were, notwithstanding, in heart and mind with us. A letter, it will be seen, was read to the Meeting from Henry Brougham, Esq. M.P. apologizing for his inability to attend; but commending highly the objects of the Institution, and inclosing a most liberal donation towards its establishment. The acting secretaries were in possession also of similar letters from Dr. Lushington, Dr. Olinthus Gregory, Professor Millington, Mr. Jeremy Bentham, David Wilkie, Esq. R. A., and other gentlemen, which would have been read to the Meeting, had not the proceedings been extended to so late an hour as to make it inexpedient to detain even a willing auditory longer from their homes. The letter of Dr. Gregory we shall subjoin to our report of the proceedings.

Dr. Birkbeck, to whom the Mechanics of Great Britain must ever look up as their first and best friend, and the author of whatever good they may derive from the establishment of schools for their instruction in the arts and sciences, was, on the motion of Mr. Bevan, engineer, unanimously called to the Chair.

Dr. Birkbeck then addressed the Meeting nearly in the following terms:—

Gentlemen;—It is always interesting to revert to the origin of those events which, by their operation, have contributed to enrich, adorn, or instruct mankind; and it is interesting also, although in an inferior degree, to retrace the steps by which projects have been introduced, clearly tending, when realized, to produce similar consequences. If the important project which has occasioned

us to assemble here this evening has originated, as the zealous and indefatigable promoters of this measure have declared, from the formation of an institution by the Mechanics of Glasgow, then, since that institution is confessedly derived from the original mechanics' class, I may be permitted to consider myself qualified to delineate the rise and progress of this branch of public instruction; and a short historical sketch will not, I presume, be deemed an inappropriate introduction to the proceedings in which we are soon to be engaged.

At the commencement of the present century, whilst discharging the duties of Professor of Natural Philosophy and Chemistry, in Anderson's Institution, at Glasgow, I had frequent opportunities of observing the intelligent curiosity of the "unwashed artificers," to whose mechanical skill I was often obliged to have recourse; and on one occasion, in particular, my attention was arrested by the inquisitive countenances of a circle of operatives, who had crowded round a somewhat curious piece of mechanism which had been constructed for me in their workshop. I beheld, through every disadvantage of circumstance and appearance, such strong indications of the existence of the unquenchable spirit, and such emanations from "the heaven lighted lamp in man," that the question was forced upon me, Why are these minds left without the means of obtaining that knowledge which they so ardently desire, and why are the avenues to science barred against them, because they are poor? It was impossible not to determine that the obstacle should be removed: and I therefore resolved to offer them a gratuitous course of elementary philosophical lectures. When the plan was matured, it was mentioned to some of the "wise in their generation:" they treated it as the dream of youthful enthusiasm, and scarcely condescended to bestow upon it a sneer, for it appeared to them so thoroughly visionary and absurd. They predicted, that if invited, the mechanics would not come; that if they did come, they would not listen; and that if they did listen, they would not comprehend. The offer, however, was made; they came, they listened, they conquered—conquered that prejudice which would have consigned them to the dominion of interminable ignorance, and would have shut the gates of knowledge against a large and intelligent portion of mankind for ever. For three successive sessions I had the gratification of lecturing to five hundred mechanics; and an audience more orderly, attentive, and apparently comprehending I never witnessed. This plan was continued and extended by my very able successor; with the addition of a remuneration, which, although not equa. to his merits and exertions, was sufficient to evince the increasing value of science in the estimation of the mechanics. After more than eighteen years had elapsed, they became so sensible of the value of the information which they had received, that they felt disposed to express their gratitude to the founder of the class, and they were induced, in an official communication, to declare their belief, that the mechanics' class had been the means of advancing, in a remarkable degree, the social, moral, commercial, and intellectual prosperity of their flourishing city. But there yet remains to be narrated in this brief history still stronger evidence of the feelings of the mechanics on this subject; and I am desirous to obtain for it your close attention, since it is unquestionably the part most worthy of your imitation. About the beginning of the present year, from circumstances which it is not necessary, and would be uninteresting to detail, the mechanics determined to separate themselves from the parent institution, and by their own means, without any subsidiary assistance, form for themselves a scientific school. This object they have achieved, and, as I have been very recently informed, are in a most flourishing condition. At this very moment, whilst I am addressing you—for this is the day and the hour of their meeting—nearly one thousand of the mechanics of Glasgow are crowding to the fountain of science, to drink from that pure spring which their own wisdom and public spirit have opened for themselves.

There may, perhaps, be some amongst the large number of mechanics whom I have now the gratification of addressing, who may entertain doubts whether the objects of science may be within their reach, or, if within their reach, whether they are available for practical purposes. To them I would say, that, although the august temple of science has generally been represented to be situated on a rugged mountain, accessible only by thorny paths, to the privileged few, yet it is really to be considered as situated on a widely extended plain, approachable with ease, in all possible directions, and opening innumerabl-

doors for the admission of its votaries. So far from science being inapplicable to the ordinary purposes of life, I will assert, with lord Bacon, one of the wisest of men, that "it comes home to men's business and their bosoms." To prove to you that the objects of science are to be found scattered around us, I need only remind you that the illustrious Galileo's observing the oscillations of a lamp suspended from the ceiling, conducted to the discovery of some of the most important laws of motion; that our immortal Newton, whilst contemplating the descent of an apple from the tree, laid a foundation for the discovery of the law which connects and regulates the motions of the planetary system, and pervades the most distant parts of the universe; that Cavallo, by means of a soap-bubble, the amusement of our boyhood, was enabled to exhibit the most successful mode of aërial navigation; and that Franklin, who, for his honour and your encouragement, I may remark was himself an operative, by means of a common paper-kite achieved one of the greatest discoveries of the last century, and secured for his name a place "amongst bards and sages old, immortal sons of praise." For instances of the applicability of science to the purposes of the mechanic, I may refer to the improvements of the steam-engine by the celebrated Watt, in consequence of his acquaintance with the laws of heat; improvements which have identified him with the splendid achievements of the most extraordinary, if not the proudest period of British history: I may refer to Bramah, who, by the application of a proposition in hydrostatics, commonly known by the name of the hydrostatic paradox, and often produced "to amuse the learned, and make the unlearned stare," has constructed a machine, the hydro-mechanical press, which, for convenience and power, has never yet been equalled; and I may likewise refer to the steam-engine invented by that distinguished mechanic, Mr Perkins, which, although time has not yet established its merits, exhibits, in a simple tube, an ingenious application of a principle respecting the transmission of heat through fluids, discovered by Count Rumford, and which shows in what manner ingenuity may apply the refinements of science to the purposes of mechanics and of civilised life. These are the results which confirm the declaration of Professor Dugald Stewart, "that when theoretical knowledge and practical skill are happily combined in one person, the intellectual power of man appears in its full perfection."

But I will not detain you longer, knowing that there are around me gentlemen, who may address you with much greater effect, than to add, that by your proceedings this evening, it will be decided whether the firm and powerful voice of science shall pervade all the workshops of the kingdom, or the feeble and uncertain vote of experience shall in them still continue to prevail; and whether in the age which is approaching, some future Grey—if indeed another poet equally exquisite should be created—whilst contemplating the last abodes of the unhonoured dead, shall or shall not have to say,

"But knowledge to their eyes her ample page,
Rich with the spoils of time, did ne'er unrol:
Chill penury repressed their noble rage,
And frose the genial current of the soul."

Dr. Birkbeck sat down amidst loud and continued applause.

Dr. Birkbeck expressed to the meeting the regret he felt at the absence of Mr. Brougham, who was to have proposed the first Resolution. One of the Secretaries would read to them a letter which had been received from that gentleman, inclosing a most substantial proof of his good wishes for the success of the Institution, and containing a very satisfactory apology for his absence.

Mr. ROBERTSON then read the following letter from Mr. Brougham:—

(COPY.)—TO DR. BIRKBECK.

"Lincoln's Inn, Nov. 10, 1823.

"MY DEAR FRIEND;—Being unfortunately prevented from meeting you tomorrow evening by the circumstance which I mentioned at the Committee on Saturday, I take the liberty of inclosing a trifling contribution, proportioned to my means, and not at all to my zeal, for the important object which we have in view.

"I look upon the successful prosecution of that object as nearly certain, because the principle on which we proceed is undeniably sound,—that the body of the people should take upon themselves the care of their own instruction, after having had the means put within their reach, whenever they are in want of them: by the means, I understand the elementary branches of reading and writing; those first portions of knowledge which are only the instruments whereby the rest may be acquired: that acquisition can only be made either easily or safely by

the people themselves. The advantages which must result from the Institution now about to be formed, are incalculable, both to the comfort and character of our fellow-citizens, in the industrious classes of the community; and I trust that both they themselves and their friends, who are promoting this design, will see the necessity of a general and united exertion to secure its accomplishment. The plan will prosper in exact proportion to the interest which the mechanics themselves take in its detail. It is for their benefit, and ought to be left in their hands, as soon as possible after it is begun.

"As you were the original author of this admirable scheme above 20 years ago, and then carried it on a large scale into execution, allow me to congratulate you on the prospect of its adoption in this great city, where its benefits and its example are likely to prove of such inestimable value.—Believe me always with great respect and attention,

"Your's most sincerely,

(Signed) "H. BROUGHAM."

[This letter was received with loud applause].

Mr. ROBERTSON informed the Meeting, that the trifling contribution alluded to in the letter was a draft on Mr. Brougham's banker for 20*l.* [applause]. The gentleman to whom the letter was directed, the worthy Chairman, had also requested that his name might be put down for the same sum [applause].

The CHAIRMAN said, that with a view to facilitate the business of the Meeting, the whole series of the Resolutions would now be read, in order that they might judge of their general tenor and tendency. They would afterwards be separately proposed by the gentlemen who were to submit them to the Meeting.

The following series of Resolutions was then read by Mr. Robertson:—

"1. That the establishment of institutions for the instruction of Mechanics, at a cheap rate, in the principles of the arts they practise, as well as in all other branches of useful knowledge, is a measure calculated to improve extensively their habits and condition, to advance the arts and sciences, and to add largely to the power, resources, and prosperity of the country.

"2. That such institutions are likely to be most stable and useful when entirely or chiefly supported and managed by mechanics themselves.

"3. That the Meeting acknowledge with approbation the example which the Mechanics of Glasgow have set their brethren at large, in being the first to establish, on this principle of self-support and exertion, an Institution for their own instruction in the arts and sciences.

"4. That there shall be established a London Mechanics' Institution.

"5. That the London Mechanics' Institution shall, in the first instance, comprehend all those persons who have already given in their names as Members, as well as all those who may do so, on or before the 2nd of December, on their conforming to the laws to be hereafter adopted for the constitution of the Institute; and that after the said 2nd of December persons shall be admitted Members on such conditions and in such manner as these laws shall provide.

"6. That among the objects which the London Mechanics' Institution shall have especially in view, shall be the establishment, for the benefit of the members of lectureships on the different arts and sciences, a library of reference and circulation, a reading-room, a museum of models, a school of design, and an experimental work-shop and laboratory, provided with all necessary instruments and apparatus.

"7. That the annual subscription to admit a mechanic to all the benefits of the Institution shall not exceed one guinea, which shall be payable at once, or by such instalments as the laws shall direct.

"8. That the friends of knowledge and improvement be invited to contribute towards the accomplishment of all the aforesaid purposes by donations of money, books, specimens, and apparatus.

"9. That the following persons be appointed a committee, with power to add to their numbers, five to be a quorum, to draw up a set of laws for the constitution and government of the Institution, and that these laws be submitted to a meeting, to be held on the 2nd day of December, which meeting shall consist of all those whose names have been previously received, and who, upon the adoption of the proposed laws, or of such other laws as they may approve, shall in themselves constitute The London Mechanics' Institution."

Mr. Sheriff LAURIE rose to propose the first Resolution. It was with some feeling of embarrassment that he had undertaken to submit this resolution to the meeting, for he felt that he was un-

able to do justice to the cause. It afforded him, however, the sincerest pleasure to witness the manner in which the resolutions which had just been read by the secretary had been received. It proved the sympathy of the meeting with the feelings of those who had promoted this institution. He lamented that his most esteemed friend, Mr. Brougham, was not there to delight the meeting by the powers of his all-grasping mind, and that he (Mr. L.) should have been selected as the substitute of that extraordinary man. There was one sentiment, however, in which he was confident they all participated, and that was the desire of doing every thing in their power to enlighten and enlarge the minds of their fellow-countrymen [applause]. If there was one class of men which deserved to be enlightened more than another, it was that of the Mechanics of England [applause]. They had done more for their country than all the poets and imaginative writers that ever lived. The latter, indeed, corrected the taste, but the former constituted the strength and sinews of the country [applause]. Our commerce was the main support of the country, and that commerce was maintained by the skill of British mechanics. After the able speeches which they had just heard, it would be unnecessary for him, even if he were competent to the task, to go over the same ground. He had himself experienced the want of an institution of this kind when he first came unfriended to this great metropolis [applause]. He was very young when he came to the metropolis, and he had mixed in scenes and societies which were calculated rather to injure than improve the mind. He had seen societies in which pretended friends joined in the recreations of recitation and song. He had seen card-clubs, in which an incurable spirit of gaming was acquired—a spirit which led to excesses, to which it was unhappily unnecessary for him at the present moment to allude more particularly; he had, in his official capacity, examined into the cases of the prisoners in Newgate, both those who were tried, and those who were untried, and he was happy to be able to state, that there were very few mechanics there [applause]. In going round the prison before the last Old Bailey sessions, he had advised many of the prisoners to write to their friends, but not one in ten could write—so true it was, that ignorance was the source of profligacy and crime. There would be no danger in the proposed institution from the discussion of political or religious subjects, of which he had seen the baneful effects in debating societies. He was glad that the mechanics were to support this institution in their own names, for this would give them a proper feeling of independence. Besides, men were invariably disposed to set a greater value on the advantages which they derived from their own exertions and sacrifices, than those for which they were wholly indebted to the benevolence of others. The worthy Sheriff concluded by proposing the first resolution.

Mr. B. Roth, barrister, seconded the Resolution. He had taken an early interest in whatever concerned the operative or humbler classes. He had observed the benefits that such societies had rendered to them, and he hoped that the present Institution would that night take root in that assembly. It was to be regretted that few societies had the peculiar recommendation of that now about to be formed. Institutions for the purposes of education generally bestowed that blessing on children, who, after having led a correct and moral life in their childhood, found themselves frequently in an unprotected state in society afterwards. The plan of the present system would obviate that objection. He was glad to find all concur in the importance of the operative classes in society. If he were asked what they are? he would reply by asking what are they not? [cheers]. Let them behold a line-of-battle ship moving along the waters, and must they not acknowledge the might and benefit they rendered to society; so much so, indeed, that in contemplating the great naval victories of this country, they deserve almost equal glory, and the sailors and mechanics may alike be denominated heroes of Trafalgar [cheers]. The medical profession, to which their worthy chairman belonged, afforded ample proof of the utility of the operative classes. In the instruments of daily use in the cure of the lame, the blind, and the infirm, of almost every complaint, how mainly serviceable was the mechanic! For his own part, he would go so far as to say, that after a child was made acquainted with the duties it owed to its Creator, it should be next taught some mechanical art, by which in after-life it may earn an independent subsistence, and be instructed in the elementary rules and laws of me-