REPORT OF THE COUNCIL OF THE SOCIETY

TO THE

FIFTEENTH ANNUAL GENERAL MEETING,

FEBRUARY 13, 1835.

It is with much satisfaction that the Council can now announce to the Society, at this their Fifteenth Anniversary, the acquisition of Apartments in Somerset House; which they have occupied ever since the commencement of the present session: and in which the business of the Society will in future be conducted. This boon they have obtained from Government, through the kind interference of His Royal Highness the Duke of Sussex, who has ever taken a lively interest in the welfare of the Society, and to whom the thanks of the Society are consequently due for his exertions. The Apartments alluded to have been fitted up in as economical a manner as possible; and arrangements have been made for the daily attendance of the Assistant Secretary, from the hours of 1 till 4 o'clock: whereby the Fellows of the Society have now an opportunity of consulting the library, of the advantage of which they have unfortunately been deprived for so long a period: whilst at the same time the annual expenses of the Society, on account of rent and taxes, will be considerably reduced. The Council however beg to remark, that the present Apartments are not the whole of those which have been appropriated to the Society by His Majesty's Government: since the basement stories at present occupied by various public documents (and included in the original appropriation) cannot be given up till a convenient and safe place of deposit has been provided for those valuable records. When this period shall arrive, the Council trust that they will be able to afford still further facilities to the members frequenting the Society.

The total expense of making the necessary alterations in the rooms, and in fitting them up for the use of the Society, has been about £330: and to

enable the Treasurer to meet this expenditure, the Council have ordered the sale of £300 stock in the Consolidated 3 per cents, part of their disposable fund. So that these additional comforts and conveniences of the Society have been obtained for about £10 per annum; in lieu of the 50 guineas which have been hitherto paid for the former Apartments, where the library was literally inaccessible: and where no opportunity was afforded for the occasional meeting of the members.

The Auditors appointed by the Society have examined the accounts of the Treasurer for the past year, and the following is the abstract of receipts and expenditure during that period, shewing also the present state of the funds of the Society: viz.

Receipt.	£.	*s.*	*d.*
Balance of last year's account ..	174	3	9
1 year's dividend on £800 Consols	24	0	0
½ yr.'s dividend on £1283. 3*s.* 11*d.* New 3½ per Cents.....	22	9	1
½ yr.'s dividend on £1346. 12*s.* 6*d.* New 3½ per Cents.....	23	11	3
For a silver medal per Dr. Lee ..	0	19	0
For 1 gold and 13 silver medals from the old die	14	4	6
On account of arrears	69	6	0
86 annual contributions, 1834–5.	180	12	0
6 compositions	126	0	0
4 admission fees	8	8	0
4 first year's contributions.....	15	15	0
Sale of Memoirs.....	70	3	0
Sale of £300 Consols.....	276	7	6
	£1005	19	1

Expenditure.	£.	*s.*	*d.*
Purchase of £127. 4*s.* New 3½ per Cent stock.....	126	0	0
Messrs. W. and L. Cubitt for fitting up the apartments at Somerset House.....	267	9	10
Sundry disbursements for furniture, &c., for the apartments .	60	8	5
Messrs. Troughton and Simms for work for standard scale and apparatus	174	14	11
1 year's rent of apartments at Lincoln's Inn-fields.....	52	10	0
1 year's salary to the Assistant Secretary	100	0	0
James Moyes for printing Monthly Notices, &c.	21	2	9
Lights, attendance, tea, &c., at apartments in Lincoln's Inn-fields	12	19	6
Sundry disbursements for ditto, removing furniture, and other expenses, at Somerset House .	38	15	6
Collector's and bookseller's commission on £470. 4*s.*.....	22	11	0
Balance in the Treasurer's hands, 31st Jan., 1835	129	7	2
	£1005	19	1

The Assets and present property of the Society will then stand as follow: viz.

				£.	s.	d.
Balance in the hands of the Treasurer				129	7	2
Arrears, Jan. 30, 1835.	1 contribution of 7 years' standing	£14	14 0			
	1 ——— of 5 ditto	10	10 0			
	3 ——— of 4 ditto	25	4 0			
	3 ——— of 3 ditto	18	18 0			
	8 ——— of 2 ditto, and admission fee	35	14 0			
	24 ——— of 1 ditto	50	8 0			
				155	8	0
7 contributions at 3 Guineas for new Fellows				22	1	0
£1346. 12*s.* 6*d.* New 3½ per Cent £500 Consolidated 3 per Cent Unsold Memoirs. Various astronomical instruments, books, prints, &c. 1 Gold Medal unappropriated.	Stock, valued at			1800	0	0

In the list of Fellows who have not paid up their subscriptions, will be found the names of several who are more than two years in arrear. The Council had, before the close of last Session, directed the Secretary to forward the usual letters to each of those parties, requesting the payment of the same, which was done: but without effect. The Council therefore has now ordered that, agreeably to the bye-laws, and the practice adopted in other societies, the names of those defaulters, together with the amount due to the Society, should be publicly suspended in the meeting room; which has accordingly been done: and no person whose name is on that list will be entitled to enjoy any of the privileges and advantages of the Society until his arrears shall have been paid.

The progress and present state of the Society, with respect to the number of its Fellows and Associates, may be seen from the following abstract, continued from the Report of last year: viz.

	Compounded.	Annual Contributors.	Non-resident.	Patron, and Honorary.	Total Fellows.	Associates.	Grand Total.
February 1834..	57	124	104	2	287	38	325
Since elected ..	4	11	..	..	..	1	..
Deceased, &c...	..	—10	..	..	..	—3	..
Removals	..	— 2	+1	+1	..	..	..
February 1835..	61	123	105	3	292	36	328

The Council regrets to state that the number of deaths amongst the Fellows and Associates of the Society has been unusually great, during the preceding year. Amongst the Fellows, the Society has to lament some of its greatest benefactors and most intelligent members: and amongst its Associates, names which have long been known and esteemed in the history of astronomy.

Thomas Telford, Esq., the President of the Society of Civil Engineers, was one of the early members of this Society. His talents are too well known to need any encomium in this place: and his works, in that department in which he so peculiarly excelled, are so numerous all over this country, that (as it has been justly observed) there is scarcely a county in England, Scotland or Wales, in which they may not be seen: and many of them may be regarded as imperishable monuments of the powerful resources of his mind.

John Fuller, Esq. was long known as a great friend and promoter of astronomy, and his splendid bequest in favour of the Royal Institution has placed his name amongst the most liberal patrons of science. The Repeating Theodolite, which he presented to this Society, has been already noticed in the Annual Report for February 1833.

Colonel Page was a member of most of the scientific and literary Institutions in London and in the neighbourhood of his residence: and he was always foremost in assisting the various undertakings that were considered

most likely to promote their welfare. To the library of this Society he was a munificent contributor: and many of our members, to whom he was well known, will long lament the loss of so excellent a friend to science, and of so amiable a character in all the relations of private life.

Captain DAVID THOMSON was a distinguished practical navigator, and known to the public as the inventor of a scale for clearing the lunar distance, and also as the author of a volume of tables intended to simplify the practical solutions of the most important problems in nautical astronomy. His scale is a very ingeniously contrived instrument, and the object intended to be accomplished by it is effected in a very simple manner. The results, too, may be relied on as sufficiently accurate for the general purposes of navigation. His tables are held in high and well-deserved esteem, as is evidenced by their having reached the 11th edition in ten years from the time of their first publication. With respect to science, Mr. THOMSON was almost entirely self-educated. He went to sea at a very early age, and the only instructions in arithmetic which he ever received were during the winter evenings of his apprenticeship, when he attended as a pupil the humble abode of a weaver, who, having spent the prime of his life as a common soldier, had settled in his original occupation at Arbroath, Mr. THOMSON's native place. The professional attainments and general information for which Mr. THOMSON was afterwards distinguished were entirely the result of his own unaided exertions. Having been some time employed as the master of a small brig, he was at length sent out to India in command of a free trader; and he was subsequently engaged for several years in trading in the Indian seas. He settled at last as a merchant in the Mauritius, where he rose to be head of the respectable agency house of THOMSON, PASSMORE, and THOMPSON. About the middle of last summer Mr. THOMSON's useful and honourable life was suddenly brought to a close by a severe inflammatory attack. He was much esteemed in private life for his integrity and general worth; and he affords a striking example of what may be effected even under the most untoward circumstances by a determined spirit of perseverance.

Rear-Admiral the Hon. GEORGE HENEAGE LAWRENCE DUNDAS was an officer in great esteem, for his seamanlike qualities and correct deportment. He entered the Navy in early life, and was a lieutenant of the Queen

Charlotte, of 100 guns, when that ship unfortunately took fire and blew up, in March 1800, by which 673 of her crew perished. In this awful calamity, Mr. DUNDAS continued until the last moment of safety, when, finding his efforts to extinguish the flames unavailing, he leaped from the jib-boom, and was picked up in a state of exhaustion by an American boat. He afterwards served till the close of the late war in the command of various ships, and constantly gave proof of ability, zeal, and gallantry. He was nominated a C.B. in 1815, since which he has represented the shires of Orkney and Shetland in parliament; and his connexion with this Society was as one of the Lords of the Admiralty,—a station in which he died last October, at Upleatham, in Yorkshire.

Captain JOHN BETHAM, of the Indian Navy, who died in London on the 23d of last January, was the fourth son of the Rev. WILLIAM BETHAM, rector of Stoke Lacey, in Herefordshire. During a service of upwards of twenty-seven years in the Indian seas, he acquired the character of an officer of spirit and talent, and displayed much discretion in the arduous duties of boat-master, coroner, and police magistrate, at Madras. He was an expert navigator, and published, at Bombay, an easy method of finding the latitude by the pole star.

The Society has suffered the loss of three valuable Foreign Associates since its last anniversary, in the persons of Colonel BAUZA, M. J. SOLDNER, and Professor HARDING.

Signor Don FELIPE BAUZA was among the foremost of those officers, whose hydrographic talents reflect such credit on the Spanish navy. He embarked on board a frigate at an early age, and after having made great progress in nautical astronomy, was selected to serve as a lieutenant in the expedition conducted by the celebrated MALASPINA, to survey the west coast of South America. This was an arduous and very interesting voyage; but in consequence of the commander being imprisoned on his return, on account of a mysterious charge respecting the Queen of Spain, the details were not published, though they had been carefully prepared for that purpose: a magnificent series of charts, however, which were afterwards engraved, afford full evidence of the skill which had been exerted. After serving with much

credit in several parts of the world, Captain BAUZA was appointed to superintend the Hydrographical Office at Madrid, a station which he retained till 1822, when, being involved in the constitutional troubles of his nation, and proscribed, he made his escape to England, in company with Admiral VALDES. But even in exile his industry did not forsake him, as was evinced by his reconstructing the maps and charts of South America, and the compilation of a luminous memoir of the data on which they were founded. He expired at an advanced age, last March, at his residence in Somers Town; and he will be remembered as an Associate of this Society, by his obliging communication of several important papers, especially that by Don JOSE DE FERRER on the longitude of the Havannah, inserted in our *Memoirs*.

M. SOLDNER, late Astronomer and Counsellor to the King of Bavaria, died last summer at Munich, at the age of 50; after having presented a striking example of the influence of mind over circumstances. He was born of the most lowly parentage, in a hovel near Anspach, and tended cattle in the fields till his fifteenth year. But genius and talent force their way even through the most unpromising circumstances; for the youth, having learned to read and write, began to study the first principles of mathematics by himself, while watching his herds, and also to notice the stars and planets. Thus occupied, with a book in one hand and a goad in the other, he was accidentally met by the late learned Dr. YELIN, Professor of Physics, who rescued him from his servile drudgery, and generously provided for his education. SOLDNER'S gratitude was evinced by his diligence. He quickly obtained a scholar's pension, and having written an improved scientific treatise, was appointed assistant to the celebrated BODE, in the Berlin Observatory. Here he continued about five years, when his native country was transferred from Prussia to the King of Bavaria, who called SOLDNER to Munich, appointed him Counsellor of the Cadastre, and directed him to superintend the chain of triangles for a new map of the kingdom, in which he was employed more than ten years. In 1817, the Observatory of Munich was erected, under the able assistance of those eminent artists FRAUNHOFER and REICHENBACH; and SOLDNER was installed its Director. From thenceforward he devoted himself exclusively to Astronomy: and his *Astronomische Beobachtungen*, containing the observations of stars and heavenly bodies over the meridian of Munich, attests his capacity for the duties intrusted to him. He

wrote many mathematical papers; and in one which appeared in BODE's *Jahrbuch,* he corrects some errors of DELAMBRE's *Systême Métrique,* by making allowance for quantities of the second order. He also published a theory and tables of a remarkable integral which presents itself in physical investigations; and whose value, by these tables, is readily found between any required limits. The decease of this distinguished Astronomer has been deeply felt in Germany,—nor has a successor been yet appointed.

Professor HARDING, of the University of Göttingen, who died on the 31st of last August, was of English extraction, and born at Lauenburg, about the year 1763. He was originally educated for the Protestant Church; but having become tutor to the son of the illustrious SCHRÖTER, he was gradually attached to Astronomy, and afterwards devoted himself exclusively to its practice and study. Having served for several years as assistant to SCHRÖTER, he became Professor of Astronomy in the University of Göttingen, in 1805, and retained that chair till his demise, which catastrophe was hastened by excessive grief at the loss of his only child, a girl of 14 years of age. The name of this amiable and active Astronomer will be known through all ages as the discoverer of the planet *Juno,* in 1804; and he compiled the most accurate celestial maps — especially of those parts where planets may be expected to appear — that are now extant. It is therefore with regret we learn, that his emoluments were not at all proportionate to his merits.

During the past year, His Majesty's Government took into consideration the expediency of appointing an Astronomer to superintend and conduct the observations at the Observatory erected some years ago at Edinburgh, with an adequate salary for himself and an assistant: and His Majesty's Principal Secretary of State was pleased to request that a deputation from the Council of this Society would attend at the Home Office, to confer and advise with him respecting the person whom it might be proper to appoint to that situation. A deputation accordingly waited on Lord MELBOURNE, and recommended in the strongest manner the appointment of Mr. THOMAS HENDERSON, the late Astronomer at the Cape of Good Hope: which recommendation has since been carried into effect. And from Mr. HENDERSON's known zeal and talents in every branch of astronomy the most beneficial results may be expected.

Since the last anniversary, the seventh volume of the *Memoirs* of this Society has been published; and considerable progress has been made in the printing of the eighth. The seventh volume above mentioned has been printed wholly at the expense of His Majesty's Government, and consists entirely of the account of Captain FOSTER's pendulum experiments, made in various parts of the world, during his scientific voyage. The eighth volume will probably appear during the present session; the greater part of it being already printed.

The Council regret that the appearance of the *Planetary Ephemeris* for the present year should have been so long delayed. The work, however, is now completed, and will be distributed, as before, amongst such persons as may be possessed of observatories, or who may be desirous of obtaining it, for the purpose of any astronomical inquiry.

His Majesty's Government has recently directed an Expedition to proceed to Syria, under the command of Colonel CHESNEY, with a view to explore the country bordering on the river Euphrates; and having for its object, amongst other things, the determination of certain geographical positions. Several members of this Society, desirous of promoting so laudable an enterprise, have contributed their aid for this purpose. Lieut. MURPHY, one of the Council of this Society, and who will accompany the expedition, has under his care a new and excellent Altitude and Azimuth Instrument made by TROUGHTON and SIMMS, which has been kindly lent to him by Mr. BISHOP, one of our Secretaries. And our Treasurer, Dr. LEE, has also lent him a transit instrument made by JONES for Mr. MACLEAR.

Lieut. MURPHY has taken out with him one of the brass pendulums (No. 10) belonging to Government: and also the two pendulums (one of iron and the other of copper) belonging to this Society, which the Council has intrusted to his care. These pendulums are the same as those which were taken out by the late Capt. FOSTER in his scientific expedition, as related in the 7th volume of the *Memoirs* of this Society. And Mr. BAILY has made a series of experiments on each of these pendulums, prior to their being sent off, in order to be compared with such experiments as may be made with them in the course of the expedition.

In the last annual Report it was stated that the new Standard Scale belonging to this Society had been completed, and that numerous comparisons of it with the Imperial Standard Yard had, by permission of the Speaker of the House of Commons, been made by several members of the Society; but more especially by Lieut. MURPHY, whose great attention to this subject is deserving of the highest praise. Since that time, however, many other comparisons of the Imperial Standard Yard have been made by the same persons, not only with the above-mentioned Standard Scale of the Society, but also with similar scales that have been made for the Danish and Russian Governments, and with the standard iron bars employed in the Irish survey. The apparatus which was formed for the purpose of these comparisons is very complete, and well adapted for the object in view: for after the microscopes are adjusted, and the scales to be compared placed side by side on their proper supports, any part of either of the scales can be brought with great ease and expedition successively under the microscopes without deranging the relative positions of the scales, or the adjustments of the microscopes: and thus an indefinite number of comparisons can be made with equal facility and accuracy. It is in this manner that several hundred comparisons of the Imperial Standard Yard have been made; in number perhaps exceeding every thing of a similar kind, and in accuracy equal to any that have yet been attempted: so that the copy thus preserved by this Society, and now in their possession, may be considered as truly representing the Parliamentary Standard. This is the more important at the present moment, as the Imperial Standard Yard, which by an Act of Parliament had been declared to be "the only unit of measure" in this kingdom, was destroyed in the late fire which consumed the two Houses of Parliament.

Allusion was made in the last Annual Report to a collection of original MS. letters written by the celebrated FLAMSTEED to ABRAHAM SHARP; a copy of which was presented to this Society by Mr. BAILY in November 1833. And, in the communication which accompanied that present, it was stated that a large collection of MS. books and papers, formerly belonging to FLAMSTEED, had been discovered by Mr. BAILY at the Royal Observatory at Greenwich. These MSS. contain not only the original entries of the observations made by FLAMSTEED, during the whole of the time that he had pursued astronomy as a science, but also a vast collection of other docu-

ments connected with the history of his labours, and the state of science at that period. Having carefully inspected these documents, Mr. BAILY drew up a brief statement of their contents, accompanied by an offer to superintend the printing of some of the most important of them, and to correct the numerous errors in FLAMSTEED's catalogue. This proposal was submitted to His Majesty's Government, who acceded thereto, and the work is now printing at the public expense. It will contain FLAMSTEED's British Catalogue, corrected and enlarged, together with a variety of original documents that have never yet been published.

During the past year, the British Association for the Advancement of Science, at their meeting in Edinburgh, appropriated the sum of £100 for the purpose of procuring the determination of the constant of Lunar Nutation from the observations made at the Royal Observatory at Greenwich with the mural circles: and from the high reputation of Dr. ROBINSON, who has undertaken to superintend the execution of the work, the most accurate results may be expected.

The Council has much pleasure in stating to the Society that their worthy Treasurer, Dr. LEE, has invested £100 sterling in the 3 per Cent Reduced Annuities, in the name of this Society, the interest of which he has requested may be given, by the Council, to the widow or orphan of any deceased Fellow or Associate of the Society who may stand in need of it.

In the last annual Report, mention was made of the result of some valuable observations which had been made by Lieut. JOHNSON at St. Helena, and presented to this Society by the East India Company. It consists of above 600 principal stars situate in the southern hemisphere; the positions of which were obtained and determined under circumstances which reflect great credit on the zeal and abilities of Lieut. JOHNSON. The observatory itself was not completed till about the year 1830: and in the short space of two years, with instruments by no means equal in magnitude to those in the European Observatories, and deprived of many of those advantages and much of that assistance which those older and better regulated establishments afford, he has with great perseverance and skill, and with a sacrifice of many personal comforts, deduced a catalogue which would do honour to a first-rate

observatory. During the time that the building was in progress, he paid two visits to the Rev. Mr. FALLOWS, the astronomer at the Cape of Good Hope, for the express purpose of obtaining from him such information as he might consider requisite for carrying on his observations: and that gentleman continued, till the time of his death, to extend to this infant observatory the powerful aid of his talents and judgment. Of the importance and accuracy of the Catalogue itself, the meeting will best judge from the following extract from the Report of Mr. HENDERSON, who was requested by the Council to examine it.

"An accurate knowledge of the positions of the principal fixed stars is required for almost every important astronomical research, and is of the utmost consequence to geography and navigation. Accordingly great exertions have been made, and are still making, in the various Observatories established in Europe by different Governments, to have the positions of such of these bodies as are visible in that quarter of the globe ascertained with all the precision which the present state of science will admit of.

"A considerable portion of the heavens, however, is constantly invisible in Europe; and of the remaining portion not a small part is seen to better advantage in southern latitudes. An accurate Catalogue of the principal fixed stars situated in the southern hemisphere, adapted to the present period, and fit to be associated with the Catalogues of European Observatories, has for a long time been a *desideratum* in astronomy.

"The Catalogue of Lieut. JOHNSON will appear most opportunely in order to supply this want. From the visit to the Observatory at St. Helena, which I had the opportunity of making, from the examinations which I have made into the observations and the results drawn from them, and from the comparisons which I have made betwixt them and those of observations made at the Royal Observatory at the Cape of Good Hope, which are not yet published, I have no hesitation in certifying, that the instruments at St. Helena, though not of such power and magnitude as those generally used in the first Observatories, yet, under the skilful management which they have experienced, are sufficient for the important purposes to which they have been applied—that the observations have been made with all care and diligence—

that the computations have been performed with every attention to accuracy—and that the resulting places of the stars contained in the Catalogue are determined nearly, if not altogether, with as much precision as those in the Catalogues issued from European Observatories of the first reputation. It has, therefore, given me satisfaction to be informed, that Lieut. JOHNSON's places of the more southern stars have been adopted in our National Ephemeris, the *Nautical Almanac*.

" The completion of the work within the short period of time in which it has been performed (notwithstanding the difficulties that a scientific establishment had to contend with at so great a distance from Europe), and the ability displayed in the execution of the work, reflect great credit not only upon Lieut. JOHNSON, his assistants, and the Observatory under his charge, but also upon the Honourable East India Company, under whose authority, and at whose expense, the Observatory was erected and carried on: and, in addition to their munificent patronage of Astronomy and its kindred sciences, frequently displayed, must entitle them to the gratitude of all who take an interest in the advancement of knowledge.

" From the successful result of this first series of observations made at the St. Helena Observatory, the advantages are manifest which science will receive from a continued prosecution of them upon an island already noted in the history of Astronomy, from the labours of HALLEY and MASKELYNE."

In this opinion of the value and importance of the Catalogue, the Rev. Mr. SHEEPSHANKS (who was also requested to examine it) entirely coincided.

Upon the strength of this Report, and the testimony of other Fellows who have examined the Catalogue, the Council directed that a letter should be written to the East India Company (through whose means, and at whose expense, the observations had been undertaken) stating their opinion of the merit and importance of the Catalogue, and suggesting the propriety of its being published under the auspices of the Honourable Court of Directors:

but to this letter, which was written on the 17th of December last, the Council has not yet received any reply.*

The opinion, however, of the Council is unchanged on this subject: indeed, so highly do they estimate the talents and zeal displayed by Lieut. JOHNSON in the execution of this voluntary labour, and of so much importance do they consider its results, that they have unanimously awarded him the Gold Medal of the Society for his exertions in this undertaking, and for the benefit which he has thus bestowed on the science of astronomy. And the Council trust that this award will meet the approbation of the Society.

Your Council has no small pleasure in recommending that the names of two ladies, distinguished in different walks of astronomy, be placed on the list of honorary members. On the propriety of such a step, in an astronomical point of view, there can be but one voice: and your Council is of opinion that the time is gone by when either feeling or prejudice, by whichever name it may be proper to call it, should be allowed to interfere with the payment of a well-earned tribute of respect. Your Council has hitherto felt, that whatever might be its own sentiment on the subject, or however able and willing it might be to defend such a measure, it had no right to place the name of a lady in a position the propriety of which might be contested, though upon what it might consider narrow grounds and false principles. But your Council has no fear that such a difference could now take place between any men whose opinion would avail to guide that of society at large; and, abandoning compliment on the one hand and false delicacy on the other, submits, that while the tests of astronomical merit should in no case be applied to the works of a woman less severely than to those of a man, the sex of the former should no longer be an obstacle to her receiving any acknowledgment which might be held due to the latter. And your Council therefore recommends this meeting to add to the list of honorary members the names of Miss CAROLINE HERSCHEL and Mrs. SOMERVILLE, of whose astronomical knowledge, and of the utility of the ends to which it has been applied, it is not necessary to recount the proofs.

* The Council has since received an answer from the Court of Directors, assenting to the suggestion for printing the Catalogue in the manner proposed.

Your Council have also thought it expedient to propose to the Society the following bye-law: — "That members of the Royal Family be exempted from all contribution." This is in many societies a matter of common usage, independent of any specific regulation; but it appears to your Council more convenient to avoid the distinction of custom and law.*

* Motions were then made for passing these several resolutions, and the same were carried unanimously.

AN ADDRESS

DELIVERED AT

THE ANNUAL GENERAL MEETING

OF

THE ROYAL ASTRONOMICAL SOCIETY,

FEBRUARY 13, 1835,

ON PRESENTING THE HONORARY MEDAL

TO

LIEUTENANT JOHNSON;

BY

FRANCIS BAILY, Esq. F.R.S. &c.

AND PRESIDENT OF THE SOCIETY.

GENTLEMEN,

IT now devolves upon me to present the Gold Medal of the Society to Lieutenant JOHNSON, agreeably to the resolution of your Council. But, previously to my so doing, it may be proper to say a few words on the subject for which that medal has been awarded.

It is well known that for many ages our information, relative to the stars in the southern hemisphere, was very scanty and imperfect; and confined principally to what had been handed down to us by PTOLEMY and other ancient writers: little or no addition having been made to his catalogue till the period of the discovery of the Cape of Good Hope and of the vast continent of America, which opened a new field of enterprise for commerce, navigation, and science. A long period, however, even then elapsed before

much was done to aid the astronomer in his pursuits: the navigators that traversed, for the purposes of commerce, the unknown and unfrequented seas thus opened to their enterprise, having added but little, and at unequal intervals, to the information already known. In fact, it was not till the voyage of Dr. Halley to the island of St. Helena, that any thing like a well-arranged and authentic catalogue of southern stars could be obtained.

Dr. Halley embarked in November 1676, when only twenty years of age, for the express purpose of making the catalogue here alluded to; and, immediately on his arrival, set about his task with so much zeal and expedition, that he completed his observations, and returned to England in November 1678. The instrument which he took out with him was not such as we now have for observing bodies on the meridian, by which their right ascensions and declinations can be conveniently and accurately determined; but was a sextant, similar to that employed by Flamsteed (an instrument then in general use), capable of being turned to any part of the heavens, and thus capable of measuring distances between certain known stars: which distances, when taken, require a troublesome trigonometrical computation before the results can be obtained.

Halley's catalogue was published in the year 1679: but, owing to the circumstance of there being no other catalogue of comparison than that of Tycho Brahé, with which the computations might be amalgamated (if I may so express myself), the positions of the stars were found not to be so accurate as could be wished. Halley, however, never attempted to correct his catalogue when better means were offered: but Mr. Abraham Sharp, some years afterwards, remedied in a great measure this imperfection, by recomputing the distances and comparing the results with certain stars in Flamsteed's catalogue, then recently published; and the catalogue thus amended by Mr. Sharp, containing 265 stars not visible at Greenwich, is given in the third volume of Flamsteed's *Historia Celestis.*

From the time of Halley to that of Lacaille, little or no addition was made to our knowledge of southern astronomy: but, this indefatigable and excellent astronomer, during his short residence at the Cape of Good Hope in 1750-52, made a review of the whole southern hemisphere; and, although

the whole of his observations have never yet been reduced, he has left us a catalogue of 1942 stars (principally such as are invisible in these latitudes), which have been of essential utility in the navigation of the southern ocean. And it is somewhat singular, that whilst Halley and Lacaille were thus respectively pursuing their observations in the south, Flamsteed and Bradley were laying the foundations of modern astronomy in the northern hemisphere. It is well known, however, that all general catalogues, such as those to which I have here alluded, require revision and reconstruction from time to time, in order to develope or illustrate certain points in physical and practical astronomy, or to confirm or improve the accuracy of the original results. And the impulse which has been given to the science in our own days, has marked out the present period as one in which such an attempt might fairly be made with every prospect of success.

The observatory at the Cape of Good Hope was founded by His Majesty's Government about twelve or fourteen years ago; and that at Paramatta about the same time by the munificence and public spirit of a private individual — Sir Thomas Brisbane: and at each of these establishments a vast mass of observations has been made, the results of which are anxiously looked for, and it is hoped, will ere long be given to the public. In the mean time the East India Company, with that spirit of attention to the promotion of science which they have exhibited on various occasions, established an observatory on the island of St. Helena, and furnished it with the requisite instruments for carrying on a regular series of astronomical observations. This laudable measure, however, would have availed but little (as we have sometimes seen on other similar occasions), had there not fortunately existed at that time a master mind ready to seize the favourable opportunity for advancing the object proposed. Lieutenant Johnson was then on duty in the island; and this ardent and zealous officer, notwithstanding the lassitude and indolence caused by a tropical climate, and the fascinations of a military life, became impressed with a strong sense of the advantages to be derived from such an establishment, and, volunteering his services in the cause of science, was appointed director of the new observatory. Mistrustful however of his own excellent judgment, and fearful that his want of experience in such matters might risk the reputation and fate of this rising institution, he made (as you have already been informed) two distinct voyages