

2. Report of the Deputation to Upsala.

By Alexander Buchan, M.A.

The Deputation appointed by the Council to represent the Society on the occasion of the 400th anniversary of the founding of the University of Upsala consisted of Mr Sprague and myself. Professor Balfour and Professor Sir Wyville Thomson, who represented the Edinburgh University, also joined the Deputation.

The Latin Address from the Society for presentation by the Deputation having been prepared, was signed in the absence of the President by the Secretary. The Address, a copy of which accompanies the Report, is in its conception and execution, a characteristic specimen of quaint and exact Latinity. It is wholly the work of Mr Gordon, the Society's Assistant Librarian.

The Deputies assembled by previous arrangement at the Grand Central Railway Station, Stockholm, on the afternoon of Tuesday, September 4, to be conveyed by royal express train to Upsala. At 4.15 P.M. the train left the station amid the cheers and congratulations of an immense assemblage of the inhabitants. About seven o'clock Upsala was reached, and the whole of the inhabitants appeared to have assembled at the station to do honour to their guests. Of this great assemblage, the white caps of the students filled the whole central space. Young Count Hamilton, in name of the students, welcomed the Deputies, and thereafter the renowned choir of this University sang one of the Swedish national airs.

In the evening a meeting of all the Deputies was held for the purpose of deciding on the order of procedure to be observed in presenting the Addresses on the Wednesday. Since the number of learned bodies represented amounted to about seventy, it was resolved that, to save time, the different bodies be grouped into nationalities, the Deputies choosing their own representative speaker, while the Addresses would be presented without remark. The British Deputies chose Professor Balfour as their representative speaker. The British Deputies were, in addition to those already named, Professor Humphry for Cambridge University, and they were joined by Dr Curling of London, Fellow of the Royal Society,

the Rev. Ch. H. H. Wright, Belfast, Bampton Lecturer elect ; and the Rev. Mr Metcalfe, Senior Fellow, Lincoln College, Oxford.

The festivities of the 5th were opened with salvos of cannon from the castle and peals of bells from the cathedral, and the streets were early astir with crowds already in evening costume. By nine o'clock the side aisles and tribunes of the transept of the cathedral were filled to overflowing with gaily dressed ladies. The procession formed in the upper hall of the Carolina Rediviva—the University Hall—which is a handsome structure built on a fine site overlooking the city. It then wound its way slowly down the beautiful avenue of limes called Odin's Grove to the cathedral, headed appropriately by the students with their guests from the other Scandinavian Universities, with the appropriate banners of the thirteen nations into which the Upsala students are divided ; followed in order by representatives of the Universities and learned Societies of Sweden, Iceland, Copenhagen, Helsinfors, and Christiania ; representatives of the Parliaments, the officials of the University of Upsala, the Charter of its foundation being carried by the Secretary of the Academy ; State Councillors and Knights of the order of the Seraphim ; and other civil, military, and Court functionaries, members of Parliament, and the Honorary Doctors, the rear being brought up by the municipal and other authorities of the city, and by all the other not included in the above. When all were seated, Professor Sahlin, the rector, went out to receive the King, Crown Prince, and their suite. The cantata composed for the occasion by Mr Charles D. de Wirsén was a striking feature of the day's festivities. A Latin service having been performed by Archbishop Sundberg, the Rector welcomed the Deputies in a Latin oration, and thereafter the Deputies presented the Addresses in the inverse order in which they had joined the procession. A speech from the Rector and the concluding part of the cantata brought the ceremony to an end about 2.30 P.M.

At 3 P.M. a dinner was given by the University in a large handsome hall, specially built for the festivities in the Botanic Garden. The King presided, and covers were laid for 450 guests. By far the best speech on the occasion was the King's, in reply to the toast of his health, proposed by the Rector. He urged the advantages of a scientific and classical education to even the poorest of his subjects ;

sketched with a rapid but firm hand the condition of Sweden when the University was founded, and the salient points of its subsequent history; and the important part played by the University, as seen in its brilliant history during these 400 years; gave expression to a fervent prayer that it would continue to maintain and extend its renown; and concluded a most animated and eloquent speech by announcing the gift of 40,000 kronors (2000 guineas) from the Crown to the University for the encouragement of scientific research.

The town was illuminated during the evening, and what may be called the club-houses of the various "nations" were thrown open by the students, with the view of giving the guests some idea of this characteristic phase of student life at Upsala.

The ceremonial of the Thursday was the conferring of degrees, which statedly takes place in June, at the close of the spring session, but which was appropriately deferred this year so as to form part of the quater-centenary commemoration. The festivities of this day were ushered in with the same formalities, and fortunately with the same brilliant weather as favoured those of the previous day. The doors of the cathedral were thrown open at 8.30 A.M., and the seats set apart for the ladies were rapidly filled, the best places this day being reserved, not as on the Wednesday in accordance with social position, but for the friends of those who were to be made doctors in the four faculties.

The procession set out from the Carolina Rediviva at 9.15 A.M., differing from the procession of the day before in the chief place being assigned to the four Faculties and the doctors elect; and all were in due time seated in their places in the cathedral in the same admirable order that marked the whole proceedings. The King, Crown Prince, and their suite were again present, being received in the porch by the Chancellor of the University, the Archbishop, the Rector, and the four Promoters. The cantata for the promotion was the work of Mr Victor Rydberg, a popular poet, and one of the eighteen of the Swedish Academy. This cantata, with the music set to it, was, like the cantata of the previous day, of a very high order of merit, and was admirably rendered by the choir.

The ceremony of promotion occupied about three hours, the degrees so conferred being strictly limited to persons resident in Sweden, Norway, Denmark, and Finland, the universities of these

countries being in peculiarly close relationship with that of Upsala. The new doctors of medicine, law, and philosophy are nominated by these respective Faculties of the University; but the doctors of theology are nominated by the King from a list submitted to him by the Theological Faculty.

Among the many quaint traditional forms with which the ceremonial was conducted may be mentioned the firing off of a piece of ordnance instantly on the crowning of each doctor; a gold ring put on the finger of each doctor in law, medicine, and philosophy; the crowning of the doctors of philosophy with wreaths of real laurel; and the recrowning of doctors of fifty years' standing, a considerable number of such jubilee doctorates being conferred. At 3 P.M. the promotion dinner was given in the large hall in the Botanic Garden, covers being laid for 1600. At dinner and during the rest of the evening the doctors of philosophy still wore their laurel wreaths.

In the meantime the gates of the Botanic Garden had been thrown open to the dense throng of the public which had been waiting outside. Shortly thereafter the King and rest of the company repaired to the open portico of the Hall, where speeches in all languages were delivered to the assembled crowds, first in front of the fine statue of Linnæus, which was crowned with laurel on the occasion, and afterwards from the broad staircase of the building, commanding a fine view of the dense crowd which filled the broad avenue leading to the Castle. Among the speakers were Chancellor Count Hamilton, Donders of Utrecht, Topelius the popular Scandinavian poet, and Professor Balfour. The speeches were varied with songs from the students, whose white caps filled the middle space of the avenue, and whose wild but well-ordered enthusiasm forms one of the pleasantest reminiscences of the festivities. As darkness set in the gardens were illuminated, and a little later there was a display of fireworks, some of the pieces being very fine, particularly one representing the new buildings of the University which are in contemplation. The festivities of the day ended with a torchlight procession of about 1000 students, who marched with their banners to the stirring music of the choir that led the procession on to the Castle, to pay their respects to the King.

On the Friday the large hall of the Carolina Rediviva was

crowded by twelve o'clock with an audience of about 4000, for the concert given by the celebrated choir of the students. The membership of the choir is limited to 500, and as all in Sweden are taught music in the elementary and secondary schools, and as it is regarded an object of ambition to be admitted a member, there is no difficulty in maintaining the choir in a state of the highest efficiency. On this, as on other high occasions, old members wearing the little rosette of membership were permitted to join the choir. It is enough to say that the concert was a very fine one, and it may be added that a degree of excellence was achieved which no existing university choir could rival. The pieces selected for the concert were essentially Scandinavian, and were remarkable for the strong patriotism and inextinguishable love of freedom which breathed through them, and for a desire for union among the three Scandinavian nations. In the evening the town gave a ball, at which the King, Crown Prince, and suite, and about 7000 guests were present in the hall in the Botanic Garden—a hall, by the way, which was levelled with the ground on the following day.

By mid-afternoon of Saturday the guests had returned to Stockholm, and at 6.30 P.M. they met at the pier to be conveyed by six steamers, specially engaged for the purpose, to Drottningholm Palace. Invitations to supper were issued by His Majesty to 700 guests. The magnificent rooms of this the stateliest of the summer palaces about Stockholm were thrown open to the guests, the King freely and cordially mingling with the company, as he did during the whole of the festivities. After supper the foreign deputies were invited to meet His Majesty in one of the larger rooms, where, after a graceful speech, to which one of the deputies replied, the King touched glasses, and shook hands with many of the deputies, and bade a cordial good-bye to all. The grounds of the palace were finely illuminated.

Thus worthily terminated the commemoration solemnities of the 400th anniversary of the founding of Upsala University, the celebration and festivities being conducted in a manner and with a munificence of which Upsala and Sweden may well be proud.

The Latin Address above referred to, which was presented by the Deputation, is as follows :—

*Amplissimis Curatoribus, Rectori Magnifico, Doctissimoque Senatui
Universitatis Upsaliensis.*

Societas Regia Edinensis nos jussit, viri illustrissimi, vobis hoc sollemni die gratulari, quo nihil exoptatius nobis evenire potest. Itaque nobis animo perpendentibus quam excultus studiorum status hodie sit, et quantopere vos in his augendis et amplificandis excelleritis, grato animo laudanda est illa fructuosissima opera quam vos et Academia vestra in finibus scientiarum dilatandis posuistis; et admirationem observantiamque nostram in viros præclaros qui temporibus præteritis exornaverunt et in successores eorum qui nunc exornant Academiam vestram libenter enuntiamus. Ab Upsala Societas nostra Regia semper lumen exspectavit et accepit; in Astronomia, Meteorologia, rebus Botanicis et Physicis, Historia Naturali, reliquisque studiis Academicis, in quæ Socii nostri continuo incumbunt, problemata difficillima solvistis, naturæ recondita extricavistis, patefecistis et illustravistis; et vestro proventu secundo Socii nostri in difficultatibus superandis valde profecerunt. In regionibus Septentrionalibus juventutem disciplinis humanis et subtilioribus instituendo Universitas Upsaliensis de republica literaria optime meruit, et laboribus suis philosophicis de rerum natura orbi terrarum notissimis fons et origo luminis fuit, imo quidem aurora borealis, vel potius sol meridianus, Sueciæ et aliarum nationum.

Ut gloria vestra per omnia sæcula permaneat ex imo pectore optamus et precationibus ominamur.

JOANNES HUTTON BALFOUR, M.D.,
Societatis Regiæ Edinensis Secretarius.

Nonis Sextilibus,

ANNO CHRISTI MDCCCLXXVII.

3. On a Method of Determining the Cohesion of Liquids.

By J. B. Hannay, F.C.S.

(Abstract.

In this paper the author concludes that the measurement of the breaking-strain of liquids is the only universally applicable method of measuring their cohesion; and as dropping is the phenomenon in which the breaking-strain can be most easily measured, he examines the work already done in this direction. Dr Guthrie's theory that