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Original Communications.

(Read before the Canada Medical Association, Toronto, 1890.)

ON THE LOCAL ADMINISTRATION OF BICHLORIDE OF MERCURY IN CERTAIN DISEASES OF THE FEMALE PELVIC ORGANS.

By A. LAPTHORN SMITH, B. A., M. D., M. R. C. S., England. Lecturer on Diseases of Women in Bishop's College, Montreal.

Bichloride of mercury has been used for several centuries as an alterative and absorbfacient, more especially to promote the absorption of syphilitic exudations. The mode of administration was generally by the stomach, until a few years ago, when the hypodermic method was introduced. The results from this latter method prove that the areolar tissue under the skin readily admits the drug into the general system, and were it not for the inconvenience of making so many punctures, it would present many advantages over administration by the stomach. The rectum has still later come into prominence as an absorbing surface, and as such there is no doubt that it is even superior to the stomach. The vagina has also been known to be capable of absorbing certain substances, but its exact capabilities in this direction do not seem to have been accurately observed. In a dozen standard works on physiology and therapeutics, the fact that certain substances may be absorbed by the mucous membrane of the vagina is merely mentioned in only one or two of them. That medicaments may be introduced not only into the absorbents of the pelvis, but also through them into the general circulation, has been made evident to me in a great many cases in which I have employed atropine, morphine, iodine, and iodoform, with the results that patients either showed the constitutional effects of these drugs or could taste them in the mouth. In fact, I have found it quite common for patients, who were not aware that I had painted the vagina with Churchill's solution of iodine, to tell me at their next visit that they perceived a metallic taste in their mouths shortly afterwards. The same has occasionally been true of iodoform; while in every case of hopeless cancer of the uterus in which I have made the path towards the grave as pleasant as possible by the local application of morphine and atropine, they have produced all the general manifestations of each of these drugs.

There is one point, however, which may be raised in objection, and of which I do not feel certain as to the answer. Granted that the abraded mucous membrane of the

vagina or cervix does absorb freely, is it also true that the same takes place when the membrane presents no solution of continuity? I am inclined to think that it does, although I have not had sufficient cases presenting the required condition of being free from abrasion in order to demonstrate this point. As far as bichloride of mercury is concerned, I am positive that it is no exception to the rule, in the case of an abraded mucous surface.

I have had a case in my own practice, and I have the record in many cases in the practice of others, in which severe toxic effects have followed the simple irrigation of the vagina with a more or less strong sublimate solution. In the case in which it has occurred in my own practice, sudden diarrhœa, collapse, and suppression of the urine, but ultimate recovery, followed the post-partum introduction of a pint of a one in a thousand solution—but, of course, in this case there were doubtless many abrasions of the mucous membrane. It is also true that in the majority of cases of pelvic inflammation, with or without exudation, the epidermis of the vagina and cervix is, to at least some extent, wanting.

I have now been employing the local administration of bichloride of mercury in doses of one-tenth of a grain every three or four days, on a boro-glyceride tampon, during the last two years, about five hundred times in about fifty cases of vaginitis, endometritis, salpingitis, ovaritis, and pelvic peritonitis, and I feel sure the duration of treatment, before relief has been obtained, has been very much less than was the case before I adopted this method. Exactly how much of my success is due to the bichloride alone, I am unable to say, for the simple reason that, at one time or another of the treatment, in every case, I employed other remedies and measures in addition to it. One of my reasons for attaching so much value to the bichloride of mercury employed in this way, is that nearly every one of the diseases above mentioned is due more or less directly to septic absorption, and that the more or less constant production of septic matter is necessary to keep up the disease.

The method in which I prepare these tampons is as follows: I make seventy of them at a time of different sizes, from the best absorbent cotton, which I then plunge into a pint of distilled water colored with aniline dye, and in which a seven grain bichloride tablet has been dissolved. If a pint is too much or too little, less or more water may be added, but I find that a pint can be taken up quite easily by seventy of these tampons. Each tampon will, therefore, contain one-tenth of a grain of bichloride. Care must be taken that too strong a dose is not employed, otherwise the discharge becomes irritating to the mucous membrane of the vulva. I employ these tampons in every case in which tampons are required, sometimes using as many as three or four of them either dry or after soaking them as well, in either glycerine or ten per cent. boro-glyceride. Although I believe that this quantity is quite sufficient to have a very material effect upon the germs of putrefaction, as well as on gonococci, the dose is quite harmless, there not being at any one time in the vagina more than an ounce of a one in ten thousand solution, or one-half an ounce of one in five thousand. I have noticed in every case in which I have employed them that the unpleasant odor of the discharges of which the patient had previously complained, has been completely removed, which alone would be enough to make it well worth while employing them. Another advantage is that tampons so prepared may be left from four days to a week without decomposing, which is greatly to be desired in cases which cannot be seen by the attendant every two days. I rarely, if ever, use pessaries, as I find, especially in cases where there are adhesions, that these tampons are painless, never light up inflammation, and are very effective in keeping

the uterus and ovaries in healthy position until the cause of displacement has been removed by other means.

I have brought this matter before you rather with the object of calling your attention to it so that as many of you as think it desirable may try it in your practice, and either condemn or approve, as you are warranted by the results.

THERAPEUTIC BRIEFS.

(From College and Clinical Record.)

Six grains of iodol a day, with an exclusive milk diet, causes the sugar to wholly disappear from the urine of a diabetic patient (*The Dixie Doctor*, June 1890).

An excellent formula for an aperient pill is the following :—

℞ Aloin,	gr. 1-3,	
Strychninæ,	gr. 1-40,	
Extract, belladonnæ,	gr. 1-10,	
Extract, cascar sagrada,	gr. j.	M.

Dr. A. F. Atkins (*Weekly Med. Review*), recommends, in exophthalmic goitre—

℞ Picrotovin,	gr. 1-30	
Extract. ergotæ aquos.,	gr. iiss.	M.

Ft. pil.
Sig. —One three times daily.

In a man suffering from well-marked typhoid fever of ten days' standing, a writer in *The Lancet*, June 21st, states that, thinking this a good case in which to try the remedy, he sent the man home to bed, and ordered him *b*-naphthol in four-grain doses every third hour. The medicine was given in capsules. His symptoms, which were very severe and well marked, at once began to ameliorate, and he was soon convalescent. He adds, there can be no doubt about the marked good effect of naphthol in typhoid, as also in summer diarrhœa and dysentry.

Dr. Leopold Meyer, of Copenhagen, in an original communication on Extra-Uterine Pregnancy (*Annals of Gynæcology and Laryngology*, July, 1890), states that the occurrence of extra-uterine pregnancy twice in the same patient is an accident which deserves to be studied with interest, not so much because of its rarity—for as we shall see, it is, perhaps, not so rare as has been believed—but especially on account of the road these cases open up into a study of the ætiology of extra-uterine pregnancy. I have myself observed one case of reiterated extra-uterine pregnancy, and have been able to collect nine other cases from the medical literature of late years.

TENTH
INTERNATIONAL MEDICAL CONGRESS
Held in BERLIN, August, 1890.

[FROM BRITISH MEDICAL JOURNAL.]

The Exhibition.

The Exhibition in connection with the International Medical Congress at Berlin was opened on August 2nd. The number of exhibits is over 1,000, and many applications have had to be declined owing to want of space. The Maschinenhalle, where the exhibition was first housed, having been found too small for the purpose, it was found necessary to transfer a large number of exhibits to the east wing of the Exhibition Palace. The structural and decorative arrangements have been carried out by Herr Jaffé, whose artistic adornment of the Renz Circus, where the general meetings of the Congress are held, has already been referred to. Anything like a complete account of the numerous and varied scientific apparatus is, of course, out of the question, but a word or two may be said as to exhibits of antiquarian or general interest. These are all more or less associated with the art of healing, and include marvellous specimens of mediæval workmanship in the shape of machine chests, etc., charms and talismans of various kinds, antique instruments, ointment pots, etc., besides portraits, statuettes, and other works of art. Special mention may be made of a seventeenth century family medicine chest from Augsburg, in which the richness of the silver work is remarkable. A statuette of Æsculapius, by Rauch, belonging to Dr. Bartels, one of the organizers of the exhibition, is also worth looking at. There is a quaint certificate from the Burgomaster and Councillors of Kottbus, testifying to the successful cure of the wife of Tobias Fielder by Balthasarl Kauffmann, "Chirurgus and Chymicus in Krossen"; the document, which has the municipal seal attached to it, bears date April 13th, 1603. Among other interesting objects may be mentioned specimens of the terrific masks which the Indian medicine men use for therapeutic purposes; these masks, which are hideously ugly, are supposed to represent the various devils which, in the pathology of the "Wild West," are the specific causes of different diseases. Each mask is plainly marked, so as to indicate the complaint which it is meant to cure, thus preventing mistakes. Chinese medicine is illustrated by a great variety of medicine boxes, amulets, bath apparatus, wooden snow-spectacles, etc., many of which are noteworthy for their artistic design. The Royal Museum has lent specimens of Roman and Greek votive offerings, consisting of limbs, etc., in marble or terracotta, presented in acknowledgment of the cure of diseases of these parts. The Egyptian Section of the Exhibition is of special interest, containing specimens of instruments, dissecting knives, sounds, etc., in bronze and flint, salve pots, and mortars in alabaster and clay. Herr Philipp Meyer has lent a complete set of porcelain and glass vessels from a Roman apothecary's shop of the 16th century, and the Royal Porcelain Factory has sent a collec-

tion of druggist's vessels. The Friedrich Wilhelm Institute is represented by family and travelling medicine chests of the 18th century, old amputating knives, etc. There is a goodly collection of old medical and surgical works, with interesting illustrations, the instruments represented being chiefly remarkable for their gruesome appearance. Then there are crosses inscribed with prayers against the plague, the dangers of war, etc.; vaccination and inoculation medals, some bearing the portrait of Edward Jenner, with the date 1749, and cholera medals, the latter, of course, belonging to the present century. On one of these, bearing the date 1832, there is an inscription to the effect that it is to be worn on the bare skin, near the region of the stomach. There is a rich collection of portrait medals in gold, silver, and bronze of distinguished German, English, French, Italian, and Scandinavian doctors from the 16th to the 19th centuries. The Exhibition will be open till August 15th, and we hope to be able to give some account of its more strictly scientific part in an early issue.

Second General Meeting.

The second general meeting took place on Wednesday, August 6th, at 11 A.M., in the Circus Kenz' Sir James Paget being in the chair.

Infection and Immunity.—Professor Bouchard, of Paris, opened the meeting with an address on the mechanism of infection and immunity. With regard to the former, Professor Bouchard pointed out that the means of defence of the body against the attacks of bacteria were the phagocytes, and the bactericide condition of the body juices or solid organs. Experiments with sudden refrigeration, carried out on guineapigs, showed that the blood of the animals did not thus become susceptible to the pneumonic virus. Slow refrigeration, however, considerably diminished the power of resistance of the body against bacteria. From these and other experiments it was clear that the juices of the body alone, in their normal conditions, had to carry on the struggle against the pathogenic microbes surrounding the body, and that they could resist them. A sudden weakening of the healthy organism, however, rendered this less resistent to bacterial attacks. By the term "bactericide condition" the lecturer did not mean the dynamic or vital property of the blood, but the chemical property of the normal healthy blood, which rendered it unsuitable as a medium for the existence of the bacteria. Speaking of immunity, Professor Bouchard pointed out that by this term he understood the condition of the body after previous non-fatal infection, in which it was at the same time protected against the pathogenic influences of the micro-organisms. This condition was either produced by an accidental infection with a favourable course or by an infection performed, to a certain extent, with intent, that is, inoculation. He further discussed the manner in which bacteria acted on the body, and distinguished eight different ways in which they did so. He did not enter into the details of each of these ways, but laid much stress on the chemical influences whereby the products of the micro-organisms affected the vasomotor centre in such a way that the exit of the nutritive juices from the blood vessels became impossible. By experiments with bacteric products of assimilation they had succeeded in preventing, over the spot of inoculation, the typical symptoms of inflammation, that is, the exit of white blood corpuscles, redness, swelling, etc. This led to the conclusion that the blood vessels had become impermeable. When the whole vascular system was affected in such a way there was naturally a severe disturbance of nutrition and derangement of the organism. The favourable effect of inoculation might be explained by the fact that the chemical influences of the bacteric products of assimilation became altered, so that they no longer opposed diapedesis. As to natural immunity, it could not be referred to a bactericide condition of the blood, but only to the greater faculty of resistance and the greater functional activity of the vasomotor centre in certain animals. These properties permitted the continuance of the nutritive activity of the capillary system. Evidence of this statement was furnished by the fact that the power of resistance in such refractory animals was destroyed by the introduction of a substance which hindred diapedesis.

Puberty and Disease in School Children.—Prof. Axel Key, of Stockholm, next read a paper on the development of puberty and its relation to the morbid appearances of school children, which was listened to most attentively, and by none more so than by Dr. v. Gossler, the Prussian Minister of Public Instruction. The lecturer began with a report on the measurements and weights of school children which had been taken in Sweden and Denmark during the last ten years. The results obtained in 15,000 boys and 3,000 girls, showed that in the 7th and 8th years the increase in stature and weight was very marked in boys; afterwards, however, a retardation occurred, which lasted to the 14th year, in which a rapid increase of growth again occurred. This increase lasted up to the 17th year: it was most marked in the 15th year; the least increase in the preceding period was in the 10th year. The increase of growth was first in stature, and it was not until later that it also showed itself in the weight. The increase in weight lasted up to the 17th year, when the bodily development was complete. In girls the case was somewhat different. The decrease in growth after the 8th year was not so marked as in boys; in the 12th year it had already given place to a great increase in height. The increase in weight followed that of height, but exceeded it in the 14th year. In the 17th and 18th years the increase in height was but slight; the increase of weight, however, fell nearly to zero in the 20th year of age. At that period growth seemed to be completed. It was strange, said Prof. Axel Key, that the boy, in his whole growth, should exceed the girl up to the 11th year, while from that date up to the 16th year of age he was exceeded by the girl, and afterwards his growth again surpassed that of the girl. These conditions—with slight deviations—proved to be uniform throughout the whole of Sweden. Observations made in America and Italy showed that in girls puberty came on at least a year sooner in these countries. In children of the poorer classes the height and weight were inferior to those of the well-to-do classes, as was proved by the examinations of 4,000 poor school boys at Stockholm. This difference seemed to be less pronounced in America and England. The decrease of growth before puberty lasted longer in poor children than in those of well-to-do people, but once begun the development of puberty was rapid and was completed in the same year as in the children of the well-to-do classes. As to the fact that the growth in height preceded that of the weight the lecturer considered it as a quite uniform one, and particularly if the experiments as to the growth of the children in the different seasons, as ascertained by Wrestling, of Sweden, and Malling-Hausen, of Copenhagen, were taken into account. With regard to the sanitary

condition of school children during the development of puberty, Professor Axel Key said that exhaustive researches had been carried out in Sweden and Denmark with reference to chronic and hereditary conditions of general weakness and chlorosis; habitual headache, curvatures of the spine, and other chronic affections. Shortness of sight was also taken into account, and was found to correspond entirely with the results obtained by Hermann Cohn, of Breslau. The result of these examinations was to show that out of 15,000 boys of the Swedish schools 40 per cent. were ill in one way or another, 14 per cent. suffered from habitual headache, and 13 from chlorosis. In the preparatory schools 17 per cent. in the lowest classes, 37 per cent. of the next higher class, and 40 per cent. of the highest classes showed illness. Similar conditions were found in Denmark. The cause of these differences lay in the conditions of the development of the puberty. The disease percentages were highest in the period of the retarded growth, and in the time of the greatest increase of growth they were least. For youths the 17th year was the healthiest and the most resistant; from the 18th year the condition of health again became impaired. With regard to the health of girls the state of things in Sweden was frightful. The percentage of disease in the 3,000 girls mentioned above was 61, out of which 36 per cent. suffered from chlorosis, as many from habitual headache, 10 per cent. from curvature of the spine, and 5 per cent. from scrofula. These conditions, said Professor Axel Key, were no doubt due to over-pressure. He concluded by suggesting that uniform international investigation should be made into the whole subject. The lecture was illustrated by about 30 large tables.

Third General Meeting.

The third and final general meeting was held on Saturday, August 9th, at 11.30 a.m., in the Circus Renz.

The Next International Congress.—Professor Virchow opened the meeting with the statement that the city of Rome had expressed its thanks, by telegram, for the decision to hold the Congress of 1893 in that city. The telegram had been sent by the Royal Commissary, who now administered the city of Rome. Signor Crispi also sent a telegram, in which he, as the Prime Minister, expressed his thanks to the same effect in he name of the Italian Government. Professor Virchow urged his hearers to attend the Congress at Rome. He also remarked that the city of Chicago had, in the meanwhile, addressed an invitation to the Congress to hold its next meeting there, as the Universal Exhibition would take place in 1893 in that city. This invitation, however, had, of course, to be refused. The Imperial University of Tomsk (Russia), and the Municipality of the health-resort of Teplitz had also sent greetings to the Congress. The Grand Duchess of Baden, as the Prussian Minister of Education, Dr. von Gossler announced, had addressed to the latter the following telegram:—"The great Congress which is now near its conclusion has, no doubt, during its important session, recalled to your memory the kind and intelligent interest with which my late mother (the Empress Augusta of Germany) would have followed its course. I feel it necessary to say this." The Minister remarked that he had instantly answered the Grand Duchess by telegraph as follows:—"The Congress has hitherto had a splendid course, and has been a great manifestation of peaceful cultural work." Professor Virchow then spoke some warm words of commendation of the late Empress Augusta. He mentioned her high merits in the furtherance of science and of practical philanthropy, the foundation of hospitals and asylums, etc., and her great merits in making use of the vast resources of international societies—such as were chiefly represented by the *Rothes Kreuz*—for the welfare of suffering mankind. Professor Crocq, of Brussels, then took the chair, and the scientific proceedings began with the address of Professor Horatio Wood, of Philadelphia, on anæsthesia. Professor Cantani, of Naples, next spoke on antipyresis.

Various Proposals.—After a short interruption of the proceedings, some business matters were dealt with. Two propositions were made, namely, one as to the establishment of an international sanitary convention, and the other as to the foundation of an international hygienic society. Professor Virchow declared that these propositions had nothing to do with the present Congress. A third proposition was brought forward, that a permanent international association of physicians should be established. Professor Virchow declared that this matter could not be discussed before the meeting at Rome, even if it could be discussed at all.

The Exhibition.—The General Secretary, Dr. Lassar, then stated that at the instance of the Prussian Minister of Education, Dr. v. Gossler, the exhibition of the Congress would be open until the end of August, and that the Minister intended to take steps to found a permanent medical exhibition at Berlin.

Addresses by Professors Meynert and Stokvis.—The two last lectures of the meeting and the Congress then followed, namely, that of Professor Meynert, of Vienna, on the Co-operation of the Parts of the Brain, and that of Professor B. T. Stokvis, of Amsterdam, on the Comparative Pathology of Races and the Power of Resistance of Europeans in the Tropical Regions.

Professor Virchow's Farewell Address.—The final act of the last general meeting was the concluding speech of the President of the Congress, Professor Virchow, and the addresses of the foreign delegates. Professor Virchow said that never before had there been so large an attendance at a medical Congress, or one of which the proceedings had been so important. He continued: we shall never forget that no limits of space, no political or religious differences, have prevented you coming to us, with us to seek for truth—pure and objective truth. We have no right to judge of the value of our proceedings; those who have not taken part in it must judge it, and we have neither the right nor the inclination to anticipate their verdict. But we may say this, that the proceedings have been up to the level of knowledge which modern medicine has reached. In eighteen Sections and two Sub-sections the work of the meeting has been done almost without a hitch, and each of us leaves the Congress with the feeling that a great and difficult piece of work has been done here, and that he carries home with him an increase of knowledge.

The members of the Congress who spoke after Virchow's concluding speech also expressed their satisfaction with the course of the Congress, the great hospitality shown to them, and the activity of the Committee, particularly the President. The speakers after Virchow were: Billings, in the name of the United States, who, though speaking English, concluded his address, amid great amusement, with the words used in Prussia: "Gesegnete Mahlzeit" ("Blessed meat," used after dinner, and also as a salutation). Professor Schnitzler, of Vienna, spoke on behalf of Austria; Csàtari for

Hungary; Oka for Japan; Sklifossoffski for Russia; Crocq for Belgium; Holmgren for Sweden; Bouchard for France; Looche for Norway; Guarch for Uruguay; Lavista for Mexico; and Baccelli for Italy. Professor Baccelli again spoke in Latin. Virchow answered in some Latin words that he hoped they will meet each other at the "Capitol," like the Roman consuls. After these words of Virchow's, Baccelli embraced him, and they kissed each other. With this fraternal greeting, the meeting and the Congress came to an end.

ENTERTAINMENTS.

Reception at the Town Hall.—The feasts were on a scale which—to use a favourite and well-applied German phrase—was "colossal." In the evening of Tuesday, August 5th, there was a grand reception of the members of the Congress in the Town Hall by the City of Berlin in honour of the members of the Congress. The reception was a very great success. The rooms of the Town Hall, which are a masterpiece of architecture, were magnificently decorated and splendidly illuminated. At one table were remarked several illustrious personages of political and scientific life. The table was presided over by the Oberbürgermeister (Lord Mayor) von Forckenbeck, and among the Prussian State ministers von Boetticher, von Gossler, Herfurth, Miguel, the late President of the Reichstag, von Lewelow, etc., were present, with the ambassador of Austria-Hungary, Great Briatin, France, etc. Virchow, Lister, Bergmann, Billroth, Paget, Bouchard, etc., were also present. Between 10 and 11 o'clock in the evening the Oberbürgermeister gave the toast of the Emperor of Germany as the protector of science and peace, which was received by the German and foreign physicians with great applause. Then came several toasts to various illustrious members of the Congress; but the person who received the greatest ovation was undoubtedly Virchow, who was carried on his chair by some of his admirers high in air over the heads of those present, like an ancient Teutonic warrior on his shield, with enthusiastic cries of "Hoch! Virchow, hoch! Virchow." The professor endured the somewhat perilous honour, cigar in hand, with smiling good-humour. The same honour was paid to Billroth.

The Congress Ball.—The fourth day of the Congress, Thursday, the 7th, was again devoted to the meetings of the Sections, and in the evening the ball given by the Congress took place. Owing to the great number of guests, the "function" had to be divided, and it not only took place in the Central Hotel, whose rooms had been taken for this purpose, but also in four other places simultaneously, viz., the Hôtel Impérial, the Kaiserhof, the Philharmonic, and the Zoologisches Garten. Besides this, several excursions were arranged for this day.

Reception at the Neues Palais.—On Friday, the 8th, the reception of numerous members of the Congress in the Neues Palais at Potsdam took place. The Emperor was represented by Prince Friedrich Leopold. In the afternoon a great garden-concert was arranged in the Palace of Potsdam, at which the bands of the 1st Garde-Regiment, the Liebgarde-Husaren Regiment, and the Regiment of the Gardes du Corps discoursed most eloquent music. The invited guests were conveyed there and back by a special train and a special steamer. The number of those present amounted to about seven hundred, most of whom were foreign delegates. All the high dignitaries now in Berlin were present, among them the Imperial Chancellor, General v. Caprivi; besides the Minister of the Exchequer, Dr. Miguél; the Minister of Public Instruction, Dr. v. Gossler, etc., etc. In the Muschelsaal of the Palace, the guests were grouped according to their nationalities, and were saluted by Prince Friedrich Leopold and his wife most cordially. Generalarzt Dr. v. Coler introduced the guests. The Gartenfest was a brilliant success.

Dinner of the Surgical Society.—The dinner of the surgeons at the Central Hotel, where nine hundred guests assembled, was the biggest of the sectional dinners. It was presided over by von Bergmann, and graced by the presence of Paget, Lister, Billroth, Le Fort, Péan, Bryant, the Duke Karl Theodor, Hamilton Washington, etc. The dinner card was accompanied by a Latin poetical monologue which began:—

Beatus ille qui procul chirurgicis,
Securus inter epulas,
Hilariter maxillis exercet suis
Quae mensa praebet munera:
Non minus fascinatus symphoniacis,
Jocose blandientibus,
Quam thyrso Bacchi raptus pampinifero,
Solutus omnino opere.
Neque excitatur osteogenesibus,
Nec jam resecto stomacho,
Neque intestino abhorret intussuscepto;
Rectique vitat tenebras.

The verses then celebrate the merits of the gastronomic elements of the repast, and ends—

Tum caseo gavisus Liberum invoco,
Spumantem Bacchem-Euhoe.
Haec ubi locutus chirurgus Rubio,
Jam jam futurus ganeo,
Pasti caponis femur ipse resecans,
Rationem novem cogitat.

When Lister was called on for a speech, a cry was at once raised by the Germans, "Lister auf den Tisch" (Lister on the table). It was taken up by one nationality after another until the whole hall was in an uproar, waving their napkins over their heads and standing on their chairs, but it was all without avail. Lister would not rise to the occasion with his feet, though in a few choice words he made everyone who could follow German understand how fully he appreciated the unique honour that had been bestowed on him. The musical programme was as cosmopolitan as the assembly, the composers being Wagner, Ambrose Thomas, Listz, Sullivan, Karpinski, Verdi, Rubenstein, Hartmann (Sweden), Kéler-Béla (Hungary), and Délibes. After the dinner toasting began Professor v. Bergmann toasted the German Emperor in German language, while Professor Bardeleben saluted the foreign members in French, and mentioned his own studies in Paris, and enthusiastically acknowledged the merits of French science. Léon le Fort, in replying, concluded his speech with the words: "Je bois à la science qui réunit notre intelligence et à l'art qui réunit nos cœurs." Professor Trendelenburg, speaking in English, proposed the health of the honorary members of the "Deutsche Chirurgische Gesellschaft"—namely, Sir Joseph Lister, Sir James Paget, Theodor Billroth, and Ollier. The toast was drunk with much applause. The Duke Dr. Charles Theodor of Bavaria proposed the health of the President of the "Deutsche Chirurgische Gesellschaft"—Professor v. Bergmann

Court Reception.—By command of the Emperor, a Reception and Garden Concert was given at Potsdam, at which Prince Leopold of Prussia, the Emperor's cousin, received the guests, attended by Count Caprivi, Court Marshal Count Eulenberg, Herr von Gossler (Minister of Education), and other high officials. Invitations were issued to 500 guests, selected from many of the leading British delegates and members. At the reception, which

took place in the Shell Room, the guests were arranged according to their nationalities, and Prince Leopold, in walking round the circle, caused a number of the representative visitors to be specially presented to him, addressing to each of them a few words of courteous welcome. Subsequently a concert was held in the garden, in the course of which Prince Leopold mixed with the visitors, and conversed with them on subjects likely to interest each. Refreshments were served, and the party returned, being taken back to Berlin by the special train which had brought them. Everything was done to make the medical guests of Germany feel that the German Emperor fully participated in the cordial and generous welcome which had been given to them by the municipality, citizens, and the profession of Berlin, and desired to mark his gracious goodwill to the Congress and all its members. Happily the weather on this as on all the other days of the Congress was peculiarly favourable, and the Court function was in every way an interesting and successful one.

Dinner at the English Embassy.—Sir Edward Malet returned to Berlin for the special purpose of showing attention to his countrymen, and gave a state banquet at the British Embassy on Thursday night. The guests were Sir Henry Acland, Sir Joseph Lister, Sir John Banks, Sir William Stokes, Sir Willim MacCormac, Dr. William Ord, Dr. Buchanan, Mr. Ernest Hart, Dr. Donald MacAlister, Director-General Dr. Dick, R.N., Surgeon-Major Notter (Netley), Surgeon-Major David Bruce (Netley), Surgeon-Major Rogers (Surgeon-General of the Egyptian Army), Dr. Phineas Abraham, Dr. Grant Bey (Cairo), Dr. Baldwin (U.S.A.), and Mr. Bashford. Sir James Paget and Dr. Priestley were unavoidably absent. Mr. Le Poer Trench, Secretary to the Embassy, and Mr. Howitt, attaché, vied with their chief during the week in courteous and obliging attentions to their countrymen visiting Berlin for the purpose of the Congress.

In the evening of Saturday a great entertainment was given by the Berlin physicians at Kroll's in honour of the Congress.

WORK OF THE SECTIONS.

THE following abstracts by specially competent writers will give some idea of the scientific work done in the various sections of the Congress.

SECTION OF ANATOMY.

It is very questionable if there has ever been a more brilliant gathering of anatomists than that which took place in Berlin during the past week. As was to be expected, Germany was most largely represented. Of those who took active part in the proceedings we may mention Professors Kölliker, His, Waldeyer, Hertwig, Braune, Hasse, Weidershein, Schwalbe, and many others whose names are known wherever morphological work is persued. From Great Britain there were Sir William Turner, of the Edinburgh University; Professor D. J. Cunningham, of the Dublin University; Professor Reid, of Aberdeen; Dr. Symington; Professor Birmingham, etc. Italy was represented by Romiti, Golgi, etc.; and America by Professor Allen, of Philadelphia. From Austria there came Toldt, Benedikt, etc.

An enormous amount of work had to be got through, and the manner in which the business was conducted did not facilitate matters. It must be admitted that the arrangements were not so perfect as they might have been. The Section met in one of the rooms in the Ausstellungspark. The greater part of the roof was composed of glass, and the heat was tremendous. It was also badly ventilated, and the Section might quite as well have sat in a conservatory. It was therefore necessary that frequent adjourments should be made for fresh air and liquid refreshments in the shape of "lager;" and, consequently, a good deal of valuable time was lost. Notwithstanding this slight drawback, the meeting was a most successful one, and nothing could exceed the kindness and courtesy which were shown by the German anatomists to their colleagues from other countries.

Honorary Presidents.—The first meeting took place on Monday afternoon, August 4th, when Sir Wm. Turner was called upon to take the chair. The greater part of the sitting was taken up with preliminary business. Eight or nine honorary presidents were elected. Amongst those who were thus honoured were Sir Wm. Turner, Professor D. J. Cunningham, and Professor Schäfer. And here we may remark a very curious custom which appears to prevail in Germany at meetings of this kind. The real President we understood to be Professor v. Waldeyer, the senior professor of anatomy in Berlin; but he completely effaced himself, and the chair was taken by the different honorary presidents in turn.

Cerebal Convolutions.—The work commenced in earnest on Tuesday morning. A discussion was opened by Sir Wm. Turner upon the cerebal convolutions. He gave a very able and comprehensive address on the subject. He was listened to by a very large audience with marked attention, and every one was delighted with the vigour and lucidity which forms so distinctly a character of his style. Professor Waldeyer followed, but his address was not so interesting, inasmuch as it was more circumscribed in its range, and dealt more with detail than with general principles. No further discussion was allowed, which was rather disappointing to some anatomists who were anxious to air their particular hobbies in this field.

Growth of the Primate Brain.—The first paper on this day was by Professor Cunningham. He dealt with a stage in the growth of the primate brain, and he endeavoured to show that when the primate head reaches in its development the quadrupedal stage, there appears to be a pause in the growth of the skull capsule, although the growth of the brain goes on steadily and without intermission towards the higher primate development. This quadrupedal pause brings the cranium and the cerebral growth for a short time into antagonism with each other, and the resu t is the production of a series of transitory unfoldings of the thin cerebral wall.

Nuclear Division, etc.—On Wednesday the chief feature of interest was a paper by Professor Flemming (Kiel). The work of this anatomist on nuclear division has obtained for him a world-wide reputation, and consequently his remarks on this subject were listened to with the greatest attention. At the same sitting Professor Anderson (Galway) read a paper.

Anatomical Nomenclature.—In the afternoon of the same day the "Anatomische Gesellschaft" met in the "Anatomischer Institut" (Louisenstrasse) for the purpose of considering the question of anatomical nomenclature. There was some difference of opinion as to how this might best be revised and improved. Sir Wm. Turner made a very sensible speech. He pointed out that before anything could be done in this direction some general principles would require to be agreed upon which would guide

the committee that it was proposed to form, and further that, although many of the terms used were very inappropriate, yet they were classical, and held a place in the history of anatomy, and that British anatomists would never consent to give them up. A small committee was finally appointed to take the question into further consideration. Sir William Turner and Professor Cunningham were asked to act on this committee, and they undertook to do so.

Histogenesis and Interconnection of the Nerve Elements.—On Thursday the chief feature of the sitting was a discussion which was opened by Professor His upon the histogenesis and interconnection of the nerve elements. Professor Schäfer of London, Küppfer, and Kölliker joined in the discussion. Schäfer in his remarks referred to the observations which have recently been made by Professor Patterson of Dundee and Dr. Mott of London.

Muscle Fibre.—On Friday Professor Rutherford (Edinburgh) gave an exhaustive account of his views on muscle fibre, and illustrated his remarks by means of some excellent models and diagrams. His paper excited a great deal of interest, and was discussed very favourably by Professor Merkel of Göttingen.

The Cardiac Ventricles.—At the same sitting Dr. G. A. Gibson (Edinburgh) read a paper upon the relative thickness of the walls of the two ventricles of the heart at different stages in its development and growth. Professor Hasse made some important remarks on the same subject. Professor Cunningham also read a paper. In all, somewhere about forty-five separate communications were made. This will give an idea of the large amount of work done.

Models, etc.—Some very beautiful models were exhibited in the Section, and also in the exhibition. His has added to his series of topographical models, and both old and new were on view. Gerlach showed a most ingenious model which he had constructed to illustrate some of the changes which take place during nuclear division, and Edinger (Frankfort) spoke of a model which he had prepared with the view of illustrating the paths followed by the different nerve strands in the spinal cords and medulla oblongata. Unfortunately the box containing it had gone astray in transit, so that he could not exhibit it. Braune showed some very instructive specimens of inflated and dried human lungs, and a series of drawings which showed the line of gravity in a soldier during the several movements which he is called upon to perform when handling his musket.

In the forenoon of each day the Section sat from nine o'clock till one o'clock. There was then an interval of two hours, and at three o'clock the Section again met in the Anatomical Institute in Louisenstrasse.

Histological Preparations, etc.—It was here perhaps that the most instructive part of the proceedings took place. A large room was set aside for the exhibition of histological preparations, whilst a continuous series of demonstrations on new processes, etc., were given in the lecture theatre. It is only possible to mention a few of the more striking of the specimens exhibited. In the front rank we would put the wonderful microscopic preparations of Flemming, of Kiel. Those who are familar with his papers on nuclear division realised how accurate his drawings and illustrations are. Preparations exhibiting the extension of the polar bodies from the ovum, the behaviour of the male and female pronuclei in the ovum, segmentation of the ovum, etc., were very plentiful, and some of them were extremely beautiful. Kölliker showed a series of sections through the spinal cord, etc., prepared by Professor Goldi's method. The manner in which the axis cylinders were brought out was very remarkable. Weigert also exhibited some specimens which showed the fibrillar nature of the neuroglia of the nervous system.

Festivities.—But the anatomists did not spend all their time in the discussion of intricate morphological questions. We have referred to the frequent adjournments which it was necessary to make on account of the peculiar construction of the room in which they met. Convenient to the door of the room was a Biergarten, and it was with great difficulty that the President rallied his dispersed forces after each such pause in the business. Further, on Wednesday night the anatomists, conjoined with the physiologists, dined at the Hôtel de Rome. This was really a delightful dinner, and marked throughout by the greatest good feeling on all sides. Kölliker proposed the toast of the foreign guests, and spoke of his former close connection with both England and Scotland. He referred to his intimacy with the late John Goodsir, Allen Thomson, and Sharpey. Sir William Turner replied in a peculiarly happy manner.

Section of Physiology and Physiological Chemistry.

(*Continued.*)

Owing to the general meeting in the Circus Renz there was no morning sitting on Wednesday, August 6th.

In the afternoon the following papers were read:—

Cortical Faradisation of Brain and Associated Eye Movements.—Professor Schäfer and Dr. Mott (London) read a paper on associated eye movements produced by cortical faradisation of the monkey's brain. The authors divided their paper into four heads: (1) associated movements produced by unilateral faradisation of the frontal region of the cortex; (2) effects of bilateral faradisation of the frontal cortex; (3) effects of bilateral faradisation of the cortex of the occipital lobes; (4) effects of simultaneous excitation of the occipital lobe of the one, and of the frontal lobe of the other, hemisphere. Under the first heading they stated that as regards conjugate deviation of the eyes this frontal area may be regarded as consisting of three zones, namely: (1) a middle zone immediately below the horizontal part of the pre-central sulcus, faradisation of which is followed by simple lateral deviation, well marked, and without either upward or downward inclination; (2) an upper zone immediately above this, which may extend to and include part of the marginal gyrus, giving on faradisation downward inclination, usually combined with lateral deviation; and (3) a lower zone immediately below the middle one, and sometimes extending nearly to the lower margin of the hemisphere, which gives upward inclination, usually also combined with lateral deviation. Under the second heading, of applying a current of equal strength simultaneously to both sides, they found that the effect was not equal on the two sides, so that even a minimal stimulus which would excite one side would produce no appreciable effect on the other. Under the third heading they gave results comparable to those obtained by stimulation of the frontal areas. Under the fourth head they found that the action of the frontal cortex invariably preponderated, so that a simple effect of lateral deviation was obtained. All these points were afterwards demonstrated on the living animal.

Formation of Sugar in the Body, etc—Professor Seegen (Vienna) presented a paper on the formation of sugar in the body. The author brought forward his views already published—that sugar is formed in the liver from proteids, peptone, fat, and not from glycogen. Professor Hoppe-Seyler (Strassburg) read three short communications: (1) on oxyhæmoglobin; (2) on the formation of alcohol in lactic acid fermentation; and (3) on the formation of sugar and lactic acid in carbonic oxide poisoning, and with insufficient supply of oxygen. Dr. Drechsel (Leipzig) read a paper on the products of decomposition of caseine.

Transformation of Peptone.—Dr. Shore (Cambridge) read a paper on the question of the transformationof peptone. He said peptone introduced into the lymphatic system was recoverable as pep tone in the lymph taken from the thoracic duct. When the lymph was allowed to enter the blood, peptone appeared in the urine. Introduction into the lymphatic system was effected in two ways, namely: 1. Injected into a lymphatic vessel of the foot, and so passing through the lymphatic glands at the knee, and in part through those in the abdomen, the peptone appeared in the lymph taken from the thoracic duct. The glands were unable to change or assimilate 0.016 gr. dissolved in lymph serum of the same animal flowing in gradually and uniformly during ten minutes, when the total amount injected was only 0.049 gr. (9 kilo. dog). 2. Introduced into the bile duct under low pressure peptone passed largely into the lymphatic system. When only 0.1 gr. per ten minutes (9 kilo dog) was allowed to flow gradually in, peptone was found in the lymph taken from the thoracic duct. Some of the peptone passed into the blood, and appeared in the urine. The liver and spleen had no power to assimilate peptone; if injected into blood vessels of either, all appeared in the urine. Change during absorption was probably due to influence of the epithelial cells of alimentary canal.

Physiological Action of the Elements.—Dr. Blake (San Francisco) read a paper on this subject. He contended that substances in the same amorphous group gave rise to the same physiological action.

New Acid in Urine.—On Thursday, August 7th, Dr. Baumann (Freiburg) read a paper on the separation out from highly coloured urine of a new acid called homogentisine acid. He stated that tyrosin given to a patient led to a large increase of this acid, and the author considered it to be formed by the action of bacteria on the tyrosin normally found in pancreatic digestion.

Estimation of Oxyhæmoglobin.—Dr. Sophus Torup (Christiania) presented a communication on a method of estimating oxyhæmoglobin and CO hæmoglobin in the circulating blood.

Fever and Urea Production.—Drs. Wood and Marshall (Pennsylvania) read a paper on the relation between fever and urea production. In this paper it was stated that the common belief of the increased urea elimination in fever to be an integral part of the process is really not proved, for it may be that such increase is accidental or secondary, due perhaps to the fever temperature, for Naunyn, Bartels, and others have been able to produce it by artificially heating lower animals and men. The important fact is that the body temperature and increased urea production do not keep pace with one another, and that, especially in the crisis of a fever, there may be a low body temperature with a great increase of urea elimination. The latter fact indicates that the real relation is between heat discharges and heat production, as Dr. Wood has shown; that frequently, in the crisis of fever, a low body temperature co-exists with an enormous increase of heat production. In hepatic fever, contrary to Raynaud, the authors found that on the days of fever the urea production was greater than on normal days. The question whether increased heat production and fever heat may exist with lowered urea elimination has hitherto never been answered, but in two cases of intense fever, caused by section of the medulla from the pons, in which cases Dr. Wood had shown that the heat production is universally augmented, the authors found that urea elimination was almost arrested.

Estimation of Sense of Smell.—Dr. Zwaardemacker (Utrecht) read a paper on the estimation of the intensity of the sensation of smell. He showed a simple apparatus for measuring the intensity of smell called forth by different substances, applicable for patients with anosmia.

Effect of Bile and Other Substances on Pancreatic Juice.—Dr. Rachford (Kentucky) read a paper on the influence of bile, sodium glycochlorate, and hydrochloric acid on the fat-splitting properties of pancreatic juice. The author said rancid fat emulsified spontaneously without shaking when added to sodic carbonate solution; neutral fat, mixed with pancreatic juice, becomes acid, due to the development of fatty acid, and spontaneous emulsification then results. The presence of sodic carbonate or of HCl retards this fat-splitting property, the presence of bile hastens it; if bile and HCl are both added the fat-splitting property is at a maximum. The formation of the emulsions was then very well demonstrated by passing light through the mixed solutions, and reflecting the appearance on a screen.

Contraction of Ventricles of Heart.—Dr. Roy and Mr. Adami (Cambridge) brought forward a communication on the contraction of the ventricular walls and of the musculi papillares respectively, and the manner in which these combine to affect the pressure within the ventricles as well as the pulse curve in the aorta. Already in part published in the *Practitioner* this year.

Form of Red Corpuscles.—Dr. Mihajlovits (Budapesth) presented a communication on the form assumed by the red corpuscles of different animals under the influence of different reagents, and their staining power with different fluids.

Movements after Ablation of Cerebral Hemispheres.—Dr. Sterner (Cologne) read a paper on the movements called forth in different animals after the removal of the cerebral hemispheres.

Removal of Liver.—Dr. Poufick (Breslau) showed two rabbits just killed, from which he had, six months ago, removed in one case a half, and in the other three-quarters, of the liver.

Motor Nerve Supply of Larynx.—In the afternoon this Section was joined by those for Nervous Diseases and Laryngology, when V. Horsley and Semon gave a demonstration on their work on the motor-nerve supply of the larynx in the cat and in the dog. This was done by means of a lantern and screen. The central nervous system being exposed in the animal, and the trachea being cut through well below the cords. Into the lower half of the trachea a tube for artificial respiration was introduced, and the lower end of divided upper part being drawn forward. At the same time, the mouth being fixed widely open, and the tongue drawn well forward, the light from a lantern being directed into the fauces, all the movements of the cords were represented on the screen. As the result of their experiments, the authors have been able to localise an adductor centre on the cortex in both cat and dog, but stimulation of the centre in the

dog, corresponding to the abductor centre in the cat, produced only slowing and intensification of the movements. Also that one-sided irritation produces double-sided movements. From this it follows that a one-sided paralysis of the cords as the result of a lesion of the cerebral hemispheres does not exist, and also that motor aphasia is not identical with aphonia. On account of the prostration of the animal experimented on, they were on this occasion unable to demonstrate satisfactorily that the adductor fibres could be stimulated in the external capsule, and that closure of the larynx could be produced by stimulation when the whole of the hemispheres were removed. Dr. Anodi (Budapesth), after the demonstration, stated that, after section of the recurrent laryngeal nerve, the branches which go to the abductors die before those which supply the abductors. Professor Dubois-Reymond (Berlin) stated that in some animals, such as the cat and cow, phonation was by means of inspiration, and not by expiration. Professor Exner (Vienna) said that this was also the case in the pig, and gave a very realistic demonstration of how the grunt was produced by inspiratory effort.

Effects of Section of Lateral Column and Cord.—Dr. Mott (London) then described and showed specimens of the section of the lateral column of the spinal cord in monkeys in the dorsal region at different levels. As the result of these experiments he summarised as follows:—1. The section of bilateral associated movements after three to four weeks, in the lower limb commencing with the hip and knee-joints, then of the ankle, and lastly of the toes. 2. Sensation generally diminished on both sides (*a*) to heat and cold as tested by dipping the feet into hot and cold water, (*b*) to painful sensations, (*c*) to touch. 3. The temperature in the popliteal space was lower by 1 to 2° F. on the paralysed side, while the skin of the foot, owing probably to vasomotor paralysis, was swollen and dry, and 3° to 4° higher than on the non-paralysed side. 4. The spinal cords were hardened and cut; sections show complete destruction of the lateral column of one side with partial destruction of the posterior lateral columns. The degenerations above and below the lesion were limited to the same side. In one case, after the animal had lived five weeks, a second section was made low in the dorsal region; this produced complete paraplegia, but there was still some slight sensation left. The animal lived four days.

Pigment of Eyes of Invertebrates.—Professor Exner (Vienna) read a paper on the pigment of facetted eyes of invertebrates. He showed several photographs and drawings illustrating the movements of the pigment under the influence of light.

Trophic Nerves of Larynx.—Professor Exner also presented a communication of the trophic nerves of the larynx. He said that section of the superior laryngeal nerve gives rise to atrophy of the internal and external thyroarytenoideus and of the interarytenoideus muscles.

Blood Pressure.—Dr. Mosso (Turin) read a paper on the measurement of the blood pressure in man.

Latent Period of Muscular Contraction.—Dr. Burdon Sanderson (Oxford) showed photographs of his method of recording the latent period of muscular contraction, which were obtained by exposing to a rapidly moving photographic plate the changes produced in the form of the muscle, and those in a capillary manometer, used to record the latency of electrical change. By this method he had found the latent period shorter than was previously supposed, being only $\frac{3}{1000}$ of a second.

Formation of Lymph.—Professor Heidenhain (Breslau) presented a communication on the formation of lymph. He said certain bodies injected into the blood increased the flow of lymph. These may be divided into two classes. 1 Salts, sugar, urea, etc., which, when injected into the blood, pass out into the lymph. The blood becoming richer in water, the large amount of water in the lymph being derived from the tissues themselves. 2. Peptone, extract of the leech, extract of the muscle of the crayfish, injected only in minute quantities. The lymph is increased tenfold; its percentage of solids is also increased, especially in albuminous matters. He considered lymph to be a true secretion, and not a mere filtration from the blood vessels.

Collodion Casts of Muscle Fibres.—On Saturday, August 9th, Dr. Haycraft (Edinburg) demonstrated his collodion casts of muscle fibres. If a few muscle fibres be teased and pressed on a film of collodion not completely dry, and if fibres be then removed, they leave moulds or impressions in the film. These show all the microscopical characters of muscle fibres, even to the minutest details. When the collodion dries these become effaced through contraction of the collodion. If the collodion be coloured the moulds are also coloured. He believed that these moulds prove that the cross stripping of the muscle is not due to the internal structure of the fibres, but to their form, each fibril being a varicose thread of tissue. He thus viewed the striped fibre to be an originally unstriped one, which, instead of shortening and so thickening as a whole—segments into minute masses, each mass shortening and thickening at a much quicker rate. Also that the movements of the stripes which occur during contraction are simply the optical appearances due to the change of form of the varicose fibre during contraction. Photographs of the collodion casts, and also the optical properties of varicose glass rods, were then demonstrated on the screen by means of a lantern.

Origin of Nerves in Invertebrates.—Dr. Biedermann (Jena) read a paper on the origin of nerves in the ganglia of invertebrates. He showed preparations chiefly stained with Ehrlich's methylene blue, mostly from the leech, in which the motor fibres were connected with the ganglia cells by a very definite clearly-staining axis cylinder, while the sensory fibres were only in connection by means of a multitude of extremely fine anastomosing branches.

Fluid Condition of Blood in the Living Body.—Dr. Alexander Schmidt (Dorpat) read a paper on this subject. He said from all living cells two groups of bodies could be extracted (1) by means of alcohol, which, when added to blood or plasma leads to increased rapidity of clotting. These act chiefly by generating fibrin ferment from the mother substance present in the colourless corpuscles. Lecithin belongs to this class. (2) By means of water. These are chiefly the so-called extractures of cells, such as xanthin, hypoxanthin, keratin, etc., which tend to retard the clotting. Dr. Heidenhain (Breslau) called attention to the observations of Shore, that peptone added to lymph out of the body in minute quantities retards clotting, but when more is added till 1.5 per cent. is present accelerates clotting, at 5 per cent. again retarded.

Pressure in Cardiac Ventricle and Aorta.—Dr. Hintle (Breslau) showed a differential manometer designed to register the difference of pressure in the ventricle and aorta. His experiments prove (1) the flow of blood from the ventricle lasts till the end of the systole, therefore there is no contraction of the ventricle after it is empty; (2) the

semilunar valves close at the beginning of the diastole.

Anatomy of Horse's Foot.—Dr. Macdonald (Glasgow) read a paper on the anatomy of the horse's foot, particularly in relation to the arrangements formed for distributing pressure.

SECTION OF PATHOLOGY.

(*Continued.*)

Biology of Lancet-Shaped Diplococcus.—On August 5th, among the purely bacteriological papers, Dr. Pio Foà brought forward the results of an investigation into the biology of the lancet-shaped diplococcus. This diplococcus, found in cases of pneumonia and pleuropneumonia, causes an inflammatory condition of the pleura and lung when injected into the pleural cavity and the lung tissue. There is no space to state all the facts brought out by Dr. Foà as to the biology of this organism, but towards the end of his preface he made a statement which was of great interest. This was that if a culture of the organism were filtered through Chamberland's filter or sterilised, the filtrate containing no organisms produced inflammation when introduced into the pleura and the lung. This is only another fact tending to show that micro-organisms produce their effect in disease by forming chemical products, which are the direct active agents in the causation of bacterial diseases.

Prevention of Diapedesis by Microbes.—Messieurs Charrin and Éley (Paris) followed with a most interesting communication. From the researches chiefly of Bouchard and Charrin, it is now well-known that the organism, which is the cause of blue pus—the bacillus pyocyaneus—is a pathogenic organisms for rabbits. In these animals it produces a local lesion when inoculated with fever and inflammatory lesions of some internal organs. The work of Charrin and of Ruffer showed that when a culture of the organism was filtered through Chamberland's filter or sterilised, the filtrate produced the lesions observed when the organisms were inoculated. Moreover, this filtrate is, under certain conditions, protective against the disease, and the sterilised or filtered urine of an animal suffering from the disease may be used for the purposes of vaccination. The present communication of MM. Charrin and Eley was entitled "La mode de l'action de la substance microbienne qui empêche la diapédèse." The title of the paper, however, is rather a deduction from the experiment than an indication of what M. Eley brought forward. The consideration most apparent was: If this culture filtrate injected into an animal prevents the development of the disease caused by bacillus, it must contain a substance which prevents inflammatory changes. This is, perhaps, a somewhat premature deduction. However this may be, the actual experimental results brought forward were of great interest. The culture filtrate of the bacillus pyocyaneus when injected into an animal effects the vasomotor system, so that vasodilatation is diminished. Thus, if the central end of the depressed nerve of the rabbit be excited, there is a fall of blood pressure, due to the dilatation of blood vessels generally, but chiefly of those going to the abdominal organs; this is the normal effect. After the injection of 20 to 30 cubic centimètres of the culture filtrate into the circulation, only a slight effect on the blood pressure is produced by exciting the central end of the depression nerve. Some substance, therefore, in the culture filtrate has so affected the vasomotor centre as to prevent dilatation of the blood vessels. The experiments on the depressed nerve were supplemented by similar experiments on the vagus. Normally, stimulation of the central end of this nerve produces a well-marked fall of blood pressure. After the injection of the culture filtrate this fall is much less than before, although it is still evident. Again, excitation of the central end of the cervico-auricular nerve in the rabbit produces, normally, a rise of temperature of the ear of the same size, with a great dilatation of the blood vessels of the ear. After the injection of 20 to 30 cubic centimètres of the culture filtrate, the dilation is much less apparent. The temperature was also affected, and as this is an important point, the author's results may be quoted in the table given by them :—

Injection of Culture Filtrate.	Time.	Before Excitation	After Excitation	Difference of Temperature
	3.10 P.M.	30.0°	30.9°	0.9°
	3.22 P.M.	29.6°	30.65°	1.05°
20 c c.	3.30 P.M.	28.1°	28.6°	0.5°
30 c c.	3.50 P.M.	27.8°	28.4°	0.6°

Corresponding, therefore, to the slight dilatation of blood vessels, there was a slight rise of temperature on stimulation after the injection of the bacterial culture filtrate. MM. Charrin and Eley do not pretend that their investigation is concluded, and have yet to confirm the results already obtained, and to clinically examine the culture filtrate with the view of isolating the substance or substances which has the effect just described.

Lesions of Myocardium.—On August 5th and 6th, the discussion on lesions of the myocardium was introduced by Professor von Recklinghausen, and, in the absence of Professor Greenfield, continued by Professor Leuker, who limited himself to confirming the statements made. This subject is one of great clinical and pathological interest, but it is one which unfortunately is more apparent to the pathologist than to the clinician, because during life it is always a question of uncertain inference whether the heart muscle is affected or not. Professor von Recklinghausen in his address brought together the facts as they have been observed by the pathologist. Degeneration or dissociation of the muscle fibres of the heart (segmentary myocarditis) is a constant appearance observed in the following conditions. First, in cases of rapid or sudden death resulting from bruising of the myocardium associated with disease (narrowing) of the coronary arteries, and in those casas where there is rupture of the heart, or of the region of the origin of the aorta. Secondly, in paralysis of the heart, in infectious diseases, such as typhoid fever, small-pox, septicæmia, and generalised purulent formation (pyæmia). Thirdly, in rapid death in cases of nephritis, and of acute lesions of the central nervous system. Lastly, in certain special modes of death, Dr. von Recklinghausen went on to say that the microscopical rupture of the muscular fibres of the heart might occur during the agony of death. In the advanced stage of this condition, transverse rupture might be seen in the separated muscle fibres, the longitudinal striation of the fibre being still intact, while the nuclei are indistinct, and do not stain well. A similiar appearance is observed if the muscle fibres be ruptured artificially soon after death. All lesions of the muscles of the heart have one result, namely, that of diminishing the contractility of the muscle

fibre. The cause of the actual lesion of the muscle fibre may be ascribed to changes (narrowing) of the coronary arteries. In some cases, for example, parenchymatous or rheumatic myocarditis, there is no lesion of the arteries; there may be in these cases constriction of the vessels resulting in degeneration of the muscle. General (progressive) anæmia, plethora, and venous hyperæmia do not lead to the degeneration of the muscle fibres above described.

SECTION OF MEDICINE.

(*Continued.*)

Chyluria.—Wednesday afternoon was occupied in this Section by the reading of papers on various subjects. Amongst these we may mentiou one by Dr. Myers, on Chylurias.

Treatment of Diabetes.—Tnursday morning was occupided with a discussion on the treatment of diabetes. The subject was introduced by Dr. Pavy. Dujardin Beaumetz was to have followed, but, as he was not present, the paper which he sent was read. Amongst the others who took part in the discussion we may mention Seegen and Lépine.

Treatment of Heart Disease.—The discussion on the treatment of heart disease was very meagre, owing to the absence of Peofessor Nothnagel, who was to have opened the subject.

Myxœdema.—The discussion on myxœdema was opened by Dr. Ord, who gave an excellent summary of all that is known, as the following brief abstract shows: (1) Sex: Whereas in Sir William Gull's first paper the disease was described as affecting women, men appear to be affected in at least 10 per cent. (2) Heredity: Special attention should be paid to this, as several instances have recently been noticed. (3) (4) speaks of the early enlargement of the thyroid. and the author related a case where myxœdema coexisted with goître and exophthalmos. (5) Tendency to hæmorrhage indicates one of the serious dangers of the disease. (6) Under this heading the author spoke of the physiognomy, pathology, chemistry of the tissues, and the relation of the thyroid gland to myxœdema Under the heading of treatment, the author briefly alluded to the implantation of portions of thyroid gland. Professors Mosler and Horsley took part in the discussion.

The time of the Section was so much taken up by papers on various subjects, that the discussion on the other theses was very meagre.

SECTION OF SURGERY.

(*Continued.*)

Osteogenesis.—On Tuesday, August 5th, Professor Ollier, of Lyons, read a paper on this subject. He began by considering the growth of bone in general, and gave a full account of his researches into these question, in which by a series of experiments performed on animals, aswell as in consequence the nemerous operations which he had performed on man, he had been led to the following conclusions: New bone could in reality be formed from the periosteum alone, and only under certain wellknown conditions. It was perfectly hopeless to expect any complete and permanent growth of bone to take place unless the periosteum surrounded it. It was, indeed, true that if the parts were aseptic for a time, the new bone. or inplanted bone, as the casé might be, seemed to grow, but this was only for atime. Within six months necrosis took place, and the dead bone if loose, was thrown off, or might remain encysted in some intances, and, if it did no harm, was certainly of no advantage to its possessor. This was a fact which had been known for many years, and there was, he believed, notwithstanding what had been said to the contrary, no exception to it. If a more minute examination were made of the implanted bone, it would be seen that the changes which took place in it were as follows: It was penetrated by blood vessels from the surrounding bones and tissues, but these vessels played no part in its nutrition, but served only to further its absorption. Perhaps no more striking evidence of the value of the periosteum could be given than the following: On one of his patients, a young woman, he had operated three times, reseting her elbow-joint on each occasion, but the periosteum had been retained, and on each occasion she had made an excellent recovery. Practically there were three kinds of plans which might be employed, which might be styled: (1) autoplastic, in which the same bone was used to repair some deficiency in itself, and the bone was only partially severed from its connections as, for example, where a piece of bone was turned down from the forehead to make a new nose; (2) the second of these plans was well described as homoplastic that is, when the graft is taken from the same individual, but not from the same bone; (3) the third, or heteroptic, plan is applied to those cases in which a bone of some other individual or animal is made use of. The first and second plans were all but useless, and the third quite so, that is to say, the implanted bone could not ever grow. With regard to the question of excisions, it was, of course, a case for either movement or ankylosis. He had nothing to say, except that in the lower limb we must always have ankylosis, and in the upper movement, though an exception might, prahaps, be made in the case of the wrist, where a fixed or partially fixed joint would be more useful to the patient than a movable one.

Surgical Treatment of Intussusception.—On Wednesday, August 6th, Mr. Jonathan Hutchinson presented a communication on this subject. After alluding to the great fatality of the disease, particularly when it affected very young children, Mr. Hutchinson made some excuses for seeming to discourage laparotomy at the present time, when such a marvellous record of success could be credited to it. He ventured to doubt, however, whether it was at all reasonable to except that a large measure of success could ever attend laparotomy for such a condition. Of four cases of his own, only one had been attended with success, and he seemed to regard the success in this case as due rather to luck than to any special peculiarity of the mode of performing the operation. The younger the child the more fatal was the disease, indeed, he knew of no case in which recovery had taken place under one year old. However early the case was seen, the result must be a matter of doubt. Resection of the gut had been recommended where reduction proved to be a matter of impossibility, but it must be very rare that the child was in a condition to bear so severe an operation. He confessed that he felt inclined to put his fait rather in the early administration of chloroform coupled with inflation either of water or air, and should this plan fail, he was inclined to think that Nature was more likley to bring about a cure when unaided by laparotomy. He showed a rubber tube with a piece of glass tubing inserted somewhere in the middle, so that he could see what was going on and he cautioned his hearers against the use of

any excessive force. Mr Howard Marsh took up the cudgels in favour of laparotomy. He had had two sucessftl cases, and if he had operated as early in all his cases as he now did he believed he should have been able to record more cures. If inflation failed no time should have be lost in o eration. It was not fair to leave cases to Nature. If the history of the cases that recovered by masterly inactivity was looked into, it would be found that they were not very severe cases; he did not believe there was any case on record which had resisted inflation, and subsequently undergone cure by natural means.

Resections of the Stomach and Intestines.—On the same day, Professor Billroth read a paper on resections of the stomach and intestines. One hundred and forty cases were recorded, which comprised the whole of those that had come under the Professor's own hands. The technique of the operation was scarcely alluded to, as it had already before been published. The plan of suturing adopted was that known as the Lembert or Czerny-Lembert plan, the latter being seldom adopted, whilst occasionally the plan had been adopted of inserting one piece of intestine into another. Practically about half the patients had recovered from the operation, though, as well be seen from the subsequent account, the mortality is far greater in certain classes of operations, and more particularly is this the case when the upper part of the small intestine is affected. Of pylorus resections, about twenty cases had been operated on by him, half of which died from the operation itself. All of the cases in which this operation was performed were the subject of cancer, though some were far more favourable to operate on than others, as the disease was not at the time of operation very infiltrating in character, but was chiefly confined to one spot, where considerable ulceration had taken place. Where there was much infiltration of the surrounding parts, an operation was almost impossible. Of those that survived the operation, some four or five had lived in comparative comfort for a few months; two cases had survived from one year to a year and a half; one case had survived two yeaas, and one was alive five years after the operation. Twenty cases of gastro-duodenostomy were recorded, one-half of which had been performed by Wolffler's method (in front of the transverse colon), and one-half by Hacke's (behind the transverse colon). They had nearly all been attended by temporary success, which of course was all that could be expected. Of ten cases of resection of the small intestine with the formation of artificial anus, all recovered from the operation. On eight or ten occasions the cæcum had been removed, but it was always a difficult operation, and did not yield satisfactory nesults. It was best to insert the small intestine into the large after such an operation. In two cases of cancer of the descending colon he had attempted resection, but both had died. In the case of the rectum the results were remarkably good; none had died directly after the operation. In two instances a portion of the rectum had been excised, and the upper and lower ends of the bowels brought together. Senn's plates had never been used by him on the human subject, but he had employed them on the dog, and was satisfied with their efficacy.

Hypertrophy of the Prostate.—Professor Bottini (Pavia) read a paper on this subject. After giving some account of his earlier experiences in this subject, Porfessor Bottini stated that he operated now on any case of enlarged prostate, provided there was difficulty in urination. He had operated on over sixty cases and lost five· His operations had been on the whole good in its results, but in some instances it required repetition. He displayed his battery and his instruments, together with the method which he adopted, and showed that he could limit the galvano-cautery action to the special part that he was operating on by holding the other part of the instrument in his hand. The same experiment was tried by others, conclusively showing that the surrounding parts were not cauterised. The instruments were shaped like a lithotrite, and the male jaw was made of platinum was, in fact, a platinum knife which cut throug the opposing piece of prostate. It resembled Mercier's instrument for prostatecomy, after which it was evidently modelled. Mr. McGill (Leeds), who was present, gave some account of his method of suprapubic prostatectomy, and referred to the cases which had been shown by himself and his colleagues at the meeting of the British Medical Association at Leeds in 1890. He also alluded to others which had since been under his care. The main objection which he thought must be made to Bottini's plan, as shown even by his own results as well as by his (McGill's) operation, was that it was impossible to tell by rectal and urethral examination what was the actual condition of the prostate. He claimed for his own operation that at present it was the only satisfactory one in the field, and that it certainly yielded good results. Mr. Bruce Clarke stated that he had once succeeded in treating a case after the plan laid down by Bottini, though he had not used nearly so powerful a current, but he had never since had a successful result, though no harm had resulted to his patients. He quite agreed with Mr. McGill's statement that it was impossible to diagnose what the exact conditions of the prostate was from the outside. It must be borne in mind that the prostate contained oftentimes myomata exactly like those in the uterus, and the only rational way of treatment when the catheter failed was to attack the prostate through a suprapubic opening.

An Account of 247 cases of operation for Rectal Cancer in Norway, Sweden, and Denmark.—Professor Dr. Axel Sversen (Copenhagen) presented a communication with this title. With the paper was handed round a table of the cases, tracing as far as possible their ultimate results, together with the operator's name, and the exact nature of the operation which he had performed. One of the most interesting facts which were brought out in the paper, was the early age at which the disease may occur, five cases being recorded under thirty, and twenty-one between thirty and forty. Removal of the Rectum: Just over one hundred cases are recorded twenty-five per cent. of which died within the first month. About fifty per cent. lived from three months onwards and one died nearly nine years after the operation, with a secondary deposit in the left kidney. Twenty-five per cent. of the cases are still alive, three between five and six years after operation, and one nearly seven years after operation, and two nine years after operation. Resection of Portion of the Rectum: eight cases died from the effects of the operation. Fourteen cases died in from three months to four years, and all had recurrence either *in situ* or at a distance, whilst seven cases are alive from nine monhts to four-and-a-half years after the operation without any recurrence. Sixteen died as a consequence of the operation, and sixty-three were much benefited, five having survived the operation from two to four years. An animated discussion ensued. Mr. Bryant stated that to get good results from

excision of the rectum, the patient must be seen early, and the disease must not involve more than the lower two inches of the bowels. Where the growth extended further, this colotomy was indicated; he perferred the lumbar operation. He had rarely lost a case by it, and in some instances the cancerous growth had been so retarded by the operation that the patients had survived five years or more in great comfort. Professor Lange (New York) described a plan by which when the cancer did not involve the sphincter, it could be retained, and this add enormously to the patient's comfort after operation. Professor Konig (Gottingen), referring to Mr. Bryant's remarks, said that his proposals for rectal removal were too limited, and alluded to a case of his own that was alive four years after operation. Professor Czerny (Heidelberg) was also in favor of the more extensive application of resection, and said he had more than once opened the peritoneum, but he had closed it again at once with sutures without any ill effect. One of his cases had survived the operation over six years. It must be borne in mind that cases of rectal cancer differed very much in their rate of growth; some were rapid, and others almost as slow as rodent ulcer.

Diagnosis and Surgical Treatment of Shot Wounds of the Stomach and Intestines.—Professor Senn (Milwaukee) read a paper on this subject. In a most dramatic address Professor Senn described at length the modes which he employed, and he drew especial importance to the following points: 1. The direction of the bullet. A wound of the abdomen from side to side was far more dangerous than one in the antero-posterior direction. This latter variety might perforate the body and yet not wound the intestines, whilst a lateral wound would almost certainly perforate the intestines in from five to sixteen places. 2. Probing was absolutely useless. The first thing was to ascertain if the bullet had entered the peritoneum, if so the anus must be inflated at once and a glass tube introduced by the wouud into the peritoneum, when three minutes would determine whether the gas emerged from the tube and could be lit there· if so, it was clear that the intestine was wounded and the hole must be sought for. As soon as the lowest wound in the intestinel was discoverd, which was easy enough as the bowel was only distended up to where the escape took place, the tube was removed from the anus, and placed in the lowest intestinal wound, after which wound number two was found. In a similar fashion the tube was introduced into number two to find number three, and so on until the operation was completed. With a view to demonstrate these facts, a dog was brought in, and hydrogen was pumped from anus to mouth. A somewhat laugable incident, which delayed the experiment, here occurred. The Professor in his hurry introduced the hydrogen gas into the vagina, and it was at least ten minutes before the reason of the non-passage of the gas was discorved. Matters, however, were soon set right, and in less than two minutes the gas emerging from the dog's mouth was lighted. A dog was then shot in the presence of the audience through the abdomen from side to side, and the wounds one after another were demonstrated with the greatest ease. The Professor concluded his remarks by assuring his audience that gunshot wounds of the abdomen, which had been reckoned as amongst the most fatal of wounds, could now be treated with success "in any shanty or even at a fence corner."

Section of Midwifery and Gynæcology.

No fewer than 405 members of the Congress joined this section, and 17 papers were read, 51 persons taking part in the discussions. Much regret was expressep at the absence of Dr. Galabin owing to indisposition, that distinguished obstetrician having been invited to introduce the subject of antiseptics in midwifery.

There is no room to notice the papers at length, and a recapitulation of their titles would be tedous. The manager of the Section, Dr. Martin, and the Berlin Secretary, Dr. Veit, did their best to ensure the reading of as many papers as possible, and to encourge discussion, Drs. Olshausen, Martin and others operated at their hospitals in presence of members of the Congress, and Mr. Tait was invited to operate after his method, on a case of ruptured perineum. Great Britain and Ireland were fairly represented on this Section; amongst our countrymen were Drs. Priestly, John Williams, A. K. Simpson, C. H. F. Routh, Murphy (Sunderland), Cameron (Glasgow), Berry Hart, Barbour, O'Callaghan (Carlow), Macan, More Madden, Stuart Nairne (Glasgow), Japp, Sinclair, Mr. Lawson Tait, Mr. Alban Doran (Secretary), and others. A very considerable proportion of the Americans who took part in the Congress joined this Section.

Electrolysis in the Treatment of Uterine Moyma.—An animated debate was held on electrolysis in myoma, Dr. Priestely being for the occasion in the chair. Dr. Apostoli defended his system in a temperate manner, and did not claim that it was a panacea; he appealed to his experience, having applied electricity to 531 uterine fibroids with only 1 death, "*imputable à des fautes opératoires,*" and found that the method at least gave relief whilst the danger was as nothing compared with the risk of laparotomy, cauterisation of the uterine cavity, or the use of the curette. Between July, 1882, and July, 1890, Dr Apostoli had applied electricity 11,499 times to 912 patients, including, besides the fibroids, 133 cases of endometritis alone, and 248 of the same affection complicated with pelvic inflammation. Only 3 deaths attributable to the method itself had occurred, including the case of fibroid above noted. Dr. Cutter (New York) described the history of the application of electricity to myoma. He said that we did not know all about the currents of electricity that flowed through the body. When he inserted needles into a tumour and connected them with a battery he expected that the current would flow through the tough tissues of that tumour and influnce the heart, in fact, the nerve centres themselves, for in them it was his belief that the therapeutic action was due by influencing the processes of nutrition, so that the tumour was eventually absorbed by Nature's own method. The process was decidedly dangerous, and required experience. As long as large fibroid tumours of the uterus existed, women should have the benefit of galvinization, combined with judicious selection. Several other speakers testified to the value of eletrolysis in fibroid of the uterus, not without noting its difficulties and dangers. The general opinion, however, was not enthusiastically in favour of electrolysis for myoma, Dr. Brose and others pointing out that enough time had not elapsed to prove cure, nor was the most experienced man's diagnosis always sound on alleged cases of incipient fibroid disease. Uterine myoma, again formed the subject of debate on another day, when an interesting discussion took place between Dr. Martin and Mr. Lawson Tait on the relative importance of removing Fallopian tube or ovary

for the cure of fibroids. Dr. Martin declared that his experience showed that excision of the tube was insufficient.

Antiseptics in Midwifery. Dr. Slaviansky introduced the subject. He brought forward statistics of 76,648 cases from different institutions, taken during the last four years; in all cases antiseptics had been employed. No cases of poisoning by the chemicals used for the purpose had occurred. From 1875 to 1885 Dr. Jacob had had 19.22 per cent. morbidity from puerperal fever, including 1.14 per cent. deaths. Since then the statistics were as follows:—

	Puerperal Morbidity.	Puerperal Mortality.
Percentage in 1886 ...	9.43 ...	0.48
" 1887 ...	10.04 ...	0.44
" 1888 ...	8.18 ...	0.33
" 1889 ...	6.90 ...	0 28

Antiseptics are now very generally employed in Russia, and in consequence the morbidity and mortality are falling in other institutions than those included in the above statistics. With antiseptic precautions, the students and midwives needin no way endanger the patients. According to the stringency of the method of antiseptics employed, not only was the mortality and morbidity diminished or kept stationary, but the pathological and operative results were affected in like manner. Lastly, under antisepsis, large lying-in hospitals answer better than smaller institutions. Sublimate was the most satisfactory agent in Russia. Dr. Stadfeld (Copenhagen) said that antiseptic treatment, throughly carried out, justified the existence of lying in hospitals, not only for teaching, but for the highest philanthropic purposes. The principle according to which a system of branches, under the care of local midwives, is added to obstetric hospitals was now unnecessary and actually dangerous. The introduction of the antisepsis into obstetrics had been also very salutary for the newborn children. In private practice the midwives must keep clothes and apparatus aseptic; scrupulous cleanliness must be insisted upon. It was very desirable that the method should be simplified, so that midwives could understand it, and that antiseptics, readily prepared, be freely supplied. The midwife should not undertake the care of any patient after delivery. The midwife must see that the person and clothes of the patient was as clean and aseptic as her own. During labour the midwife must interfere with the case as little as possible. All cases of puerperal fever, even if slight, must be immediately reported to the sanitary authorities, by the midwives as well as by the physicians. When several cases occurred under the same midwife a thorough examination of all circumstances, and possibly a temporary suspension of the midwife, was necessary. Dr. Kritsch divided the history of antiseptics, as employed against the risk of puerperal fever, into three epochs the experimental period the era when the system was overdone (too strong solutions being used) and the present stage when moderation was in practice. No local treatment was needed for healthy women; in mild forms of fever (*Resorptionsfieber*) only expectant treatment was called for. In high fever irrigation of the uterus was necessary, but only as a part of the treatment, Irrigation was never to be relied upon alone when fever had really set in. Dr. Priestley noted the fearful mortality which had occurred in days within his own memory, before antisepsis. To Sir Joseph Lister, whom they had heard in the large theatre that day, must be attributed the improvements now under discussion. Continental obstetricians had taken the lead, and nothing spoke so strongly in favour of the antiseptic system than the good results in Russian pospitals compared with the high mortality outside those institutions in Russia, Dr. Priestley regretted that Dr. Galabin had found 1 in 4,000 injections of sublimate inefficient, and so recommended 1 in 2,000, for Dr. Priestley had on different occasions seen serious results follow the injection of the stronger solution.

Vaginal Extirpation of the Uterus.—Dr. John Williams said that cancer of uterus was in itself an idication for total extirpation of that organ, and yet all such cases were not fit subjects for the operation. Total extirpation should be undertaken with a view to radical cure only; it was of too grave and mutilating a character to be adopted as a merely palliatice measure. Dr. Williams then noticed his views on the manner by which cancer spread, and advocated supravaginal amputation of the cervix as the most justifiable operation in most cases. Present statistics were insufficient to warrant the positive conclusion that the results after total extirpation were better than those after supravaginal amputation of the cervix. Our aim should be to recognise this transition state to distinguish cases in which cancer was limited to the uterine tissues from those in which it had passed just beyond them where there was no appreciable indication of the parametric tissues and in which, nevertheless, early recurrence after operation was certain. Vaginal and rectal examinations under anæsthesia were required. Glandular enlargements were sometimes situated at too great a distance from the uterus to be discovered when the intervening tissue was yet healthy. When it was found that the whole thickness of the uterine wall or of any part of it in the cervix or in the sides of the body where the broad ligaments were attached was involved, should total extirpation be resorted to or did the operation, undertaken under such conditions, offer any hope of radical cure? These questions were submitted for debate. Dr. Schauta was against amputation of the cervix. In seventeen cases he found that the body of the uterus was involved, the cervix being the primary seat of disease. He therefore favoured total extirpation. Dr Pozzi was of a similar opinion, preferring the complete operation, but said that extirpation must not be performed when the disease had passed beyond the limits of the uterus. He strongly deprecated the pulling downwards of the fundus in the course of the operation, as the diseased cervix then fouled the peritoneum. He also insisted on ligature of vessels, objecting to forcipressure. Dr. Landau preferred forcipressure; it permitted of a more through removal of a part. He had performed thirty-five operations with three deaths, Dr. Sajaitzky gave a history of the operation in Russia. With antiseptics, total amputation was not dangerous. Schoder, Fritsch, and Martin's method was the best. Damage to the bladder and ureteus could always be avoided. Dr. Martin favoured complete extirpation in cancer, and also in other diseases which kept the patient from work. He only operated when the uterus could be totally removed. He attached little importance to the variety of total extirpation employed. He closed the wound, and did not drain. Dr. Kaltenbach said that the differences of opinion were not on really essential matters. Nobody could prophesy if, how, when, and where the cancer would recur. He closed the peritoneum. Dr. Duvelius did total extirpation in all cases of cancer. Dr. Czerny

(Heidelberge) said that vaginal extirpation would remain in practice as long as medical treatment for cancer remained undiscovered. When the parametrium was infiltrated, the sacral method of operating was needed. Dr. Frankel described a case of recurrence which did not take place till eight years after the total extirpation. M. Pean said that total extirpation was possible without any ligatures. Forcipressure answered admirably.

Induction of Premature Labour.—Dr. Theophilus Parvin introduced this discussion. He mentioned all the conditions under which induction of premature labour was needed, such as obstinate vomiting renal, cardiac, and pulmonary disease, and exhibited tables illustrating the question. The chief condition, however for which labor was induced was pelvic deformity, about seven-eighths of nearly 1,000 cases tabulated by Dr. Parvin having contracted pelves. The relative merits of this method and Cæsaren section in cases of deformed pelvis were hard to decide, and greatly depended upon the amount of deformity and on the qualification. experiences ;and skill of the obstetrician or surgeon who undertook each case. Dr. Parvin therefore dwelt rather on cases where labour was induced for visceral disease or acute infections affections. In many such cases the practic was good, in others interruption of pregnancy was more dangerous than its continuance. Dr McCan discussed the ethics of the question. Once the results to mother and child were unfavorable. Since the introduction of antiseptics the mother ran little more risk than was entailed in normal labour. The safety of mother and child was very differently affected, now as before. Dr. McCan noted how in England the safety of the mother was first considerd; but this question now stood in a new light, for, till recently, perforation which killed the child, usually saved the mother, Cæsarean section being very dangerous to both. Now the latter operation often saved both. Dr McCan did not think that too little stress should be placed on saving the child. and at the same urged that, no matter how positively we might lay down the indications in any given case, it was the woman herself who had finally the right to determine what amount of unnecessary danger she should run for the sake of her unborn child. Cæsarean section should never be forced on a patient, and should only be performed when after its relative risks and advantages and its alternatives, above all the induction of premature labour, had been fully explained to the patient, the latter ultimately preferring section. Induction of premature labour was not without danger. Antiseptics greatly diminished the risks, but when labour continued for three or four days perfect antisepsis was difficult to ensure. Dr. McCan lastly entered into the techincal details of the operation. He thought that dilatation with the fingers was preferable to the use of tents or even of the bougie, and recommended that method whenever practicable. Dr. Calcerini (Parma) held that, in the interests of the child, labour should not be induced when the conjugato vera in rachitic pelves was under 75 millimetres. With special precautions, the number of children born alive might be increased. Antiseptics had greatly increased the value and diminished the risk of this method. The best way of inducing labour in cases of contracted pelves was the use of hot douches through a speculum, and the introduction of a bougie as far as the fundus. When labour was induced for visceral disease, it was often necessary to add to the above puncture of the membrance. Statistical tables which Dr. Calderini exhibited showed that turning, induced labour, symphysiotomy, forceps. perforation, Porro's operation, and Sanger's Cæsarean section represented increasing grades of danger to the mother, the first being the least dangerous, the mortality of the child being almost reversed in the above list, excepting that perforation was, of course, always fatal. In the interests of the child preference should be given to Cæsarean section, but the risk to the motner was still great, and in practicable cases, induced labour should be preferred .Although 75 millimetres was the maximum in rachitic pelves, induced labour might be justifiable in pelves with a conjugate of as much as 85 millimetres, when other forms of distortion existed. Dr. Dohrn (Konigsberg) was of the same opinion as to pelvic measurements. The value of induced labour was not lessened by the improved results of craniotomy and Cæsarean section.

Abdominal Surgery.—Amongst the papers relating to abdominal surgery was a communication from Dr. E. W. Cushing, of Boston U.S., on Drainage after Abdominal Section. He laid down the following indication for drainage. 1. The presence of freshly separated adhesions or of voluminous pedicles, or of rents and incisions in the pelvic peritoneum which required many stitches, in fact, any condition which might probably lead to oozing of bloody fluid. 2. The fact that pus or the contents of cysts, or much blood, urine, of fæcal matter had escaped into the abdominal cavity; such a circumstance being always followed by free irrigation with pure hot water and the use of drainage. 3. Perforation or incision of the intestines or bladder during operation, or a sloughy condition which made perforation probable. 4. The presence of masses of exudation or stiff capsules whence diseased structures have been enucleated, capsules which will not fall in and so allow of the accumulation of fluid. 5. Any condition, such as shock or weakness, which required very rapid termination of a difficult operation, in which case the abdomen will be full of hot water. There were no special contraindications to drainage. The general feeling of the Continental authorities was strongly against the drainage tube, and in favour of antiseptics, Professor Schroder representing this current of opinion in its extreme form. Mr. Tait, on the other hand, denied the value of the results of the cultivation of germs on dead subjects, and observed that the proportion of cases where he used the tube had increased. He employed it in old subjects over sixty, and in exhausted young patients. The Continental operators chiefly relied on antiseptic lotions and rapid operating, they made free abdominal incisions, placing no faith in the virtues of a short wound.

Abdominal Sections by Professor Martin.—On Wedensday morning, August 6th, Dr. Martin performed three abdominal sections at his private hospital in the Elsasserstrasse before a company of distinguished foreign operat rs. Each patient was chloroformed in her ward, then carried upon a couch with wheels to a room where the abdomen was throughly washed with sublimate, the pebis shaved, and the urine drawn off. The visitors, at the request of the operator, entered the operating theatre divested of their coats and waistcoats. The operator and his assistants were in a yet more complete undress uniform. The patient, when brought into the theatre, underwent a fresh washing, the juice of a lemon being lastly squeezed over the abdominal integuments. The operator sat between the patient's thighs, the chief assistant

also sitting was placed to the patient's left. In all three cases the operation was performed with great rapidity, and the abdominal incision was made very long, almost reaching the umbilicus, although in no case was a large tumour present. The wound was also closed quickly by means of stout catgut sutures, not placed closely together. In the second case a suppurating tube was removed from the right side. In the third an intraligamentary ovarian cyst was enucleated. The first operation was of great interest. An interstitial myoma of moderate size was present, the uterus and its appendages were drawn out of the wound, and the vessels of the broad ligament temporarily secured by means of large pressure forceps. Then a vertical incision was made, extending down the back and front of the uterus, passing over the fundus. The myoma was next enucleated. The capsule was treated after Dr. Martin's special method, none of its substance was cut away, but its raw surfaces were united by deep, and its cut edges by superficial, catgut sutures. The forceps being removed the sutures and appendages were than replaced in the pelvis. In none of the cases was flushing or drainage employed. The instruments were immersed on a 2 per cent. solution of carbolic acid. For the washing of the patients and the operator and assistants a 1 in a 1,000 solution of sublimate was employed. The spray was not used. Dr. Martin's hospital is a model of elegance, comfort, and cleanliness.

Exhibits.—Many anatomical and pathological specimens were exhibited. Amongst the best were a series of Frozen Sections, prepared by Dr. Leopold (Dresden), showing the relations of the parametrium to the pelvic walls and organs, and the anatomy of extra-uterine pregnancy. Dr. Barbour's admirable demonstrations on anatomical proparations, elucidating the later periods of pregnancy and the relations of the uterus, etc., during and after labour were listened to with great interest. Of course there were plenty of deformed pelves. Dr. Neugebauer, jun. (Warsaw), demonstrated several such specimens, and showed himself to be a most able oratorical exponent of a peculiarly difficult subject.

Section of Ophthalmology.

(*Continued.*)

Test for Colour Vision.—The following abstract of the paper and discussions will give some idea of the proceedings. On August 6th Dr. Grossmann (Liverpool) exhibited a new apparatus for colour vision, tho object being to detect very small scotomata, and establish the normal standard for the perception of small coloured lights. Dr. Augtein (Bromberg) regarded Dr. Grossmann's tests as the most practical ever published, if only manufacturers could construct it more satisfactorily. Professor Raehlmann exhibited curves which he had obtained for the perception of colour in normal and colour-blind eyes.

Adaptation in Diseased and Healthy Eyes.—Dr. Schirmer (Gottingen) read a paper on this subject. He had found the albinotic light sense equal to that of the pigmented eye, and that of the night blind was also equal to the normal after prolonged adaptation. Night blindness he considered with Freitel to be a disease of adaptation, which depended upon some as yet unknown process in pigment epthelium. Professor Uhthoff (Berlin) opposed these views, as he had found the light sense defective in night blindness. Dr. Graening (New York) also spoke. Dr. Schirmer, in reply, suggested that Professor Uhthoff had not given sufficient time for adaptation before testing the light sense; from twelve to twenty-four hours is sometimes necessary.

New Ophthalmoscope.—Dr. Lyden Borthen (Trondjem) exhibited a new refraction ophthalmoscope.

Perimetric Tests.—Dr. Bjerrum (Copenhagen) read a paper on addition to the ordinary perimetric tests and fields of vision in glaucoma. He uses very small test objects at considerable distances, and by this means could detect defects which escape ordinary perimetric test. He had thus found the field affected in the early stages of glaucoma. Mr. Berry (Edinburgh) fully approved of Bjerrum's method; it was useful in glaucoma and in amblyopia from toxic as distinguished from inflammatory lesilons of the nerve. In this Professor Hirschberg (Berlin) agreed.

Refraction.—Dr. Ramos (Mexico) contrasted the refraction as found by him in Mexico with that found by Cohn and others in Europe. The chief point was the almost complete absence of myopia in the native race. It occurred among half breeds, but not to the same extent as among the Europeans living in Mexico.

Other Papers.—Dr. Arninski (Essell) read a paper upon the relation between the far point of man's eye and his occupation, in which he regarded the hypermetropic as the normal eye. Dr. Giqbrecht (Ghent) read a paper upon Daltonism in connection with the examination of railway servants and seamen.

Sympathetic Ophthalmia.—On August 7th a discussion on this subject was opened by Mr. Brailey (London) in a speech which gave detailed description of the pathology of the eyeballs which excite and of those which suffer from sympathy. The exciting eyes exhibit a blastic uveitis, with clusters of cells in iris, ciliary body and choroidea, but the chorionic capillars and the pigment epithelium generally escape. Sympathy occurs after serous and suppurative disease also, and has been produced by non-perforating tumours. In the sympathising eye the disease has begun with papillitis in 10 per cent. of cases. In 5 per cent. it has not gone beyond papillitis, but generally it is a uveitis of a serous kind with keratitis punctata and high tension. It seems to travel through the nerve sheaths and then either along central vessels to papilla or along episcleral tissue to iris. It is hard to explain its occurrence in cases of non-perforating tumours, and its general non-appearance after suppuration, if it is caused, as many hold, by a bacillus. As to prevention, a timely enucleation is the best plan, and succeeds, unless the cause lies in the socket external to globe, but evisceration, resection of the nerve, and iridectomy even have done good. If glaucoma exists in the second eye an irdectomy is useful. Professor Deutschmann distinguished between sympathetic irritation and sympathetic inflammation, and gave a brief account of his experiments upon rabbits. He succeeded, as is known in producing sympathetic inflammation, beginning in the optic papilla, but nearly all the animals died with meningitis. In human eyes removed for causing sympathetic disease, and in the sympathising eyes also, he had always found staphylococci, but he did not assert that these cocci were the only cause of the disease. Possible they assisted in the elaboration of a chemical poison which was the real toxic agent. There seemed to be several possible routes for the inflammatory process from the globe to the optic nerve sheath or *vice versâ*, namely, the suprachoroidal space, the space round the central vessels, and the space

beneath the capsule of Tenon, but in all cases it travelled from one eye to the other by means of the optic nerve sheath. Dr. Darien (Paris) advocated Abadi's treatment of electric cauterisation.

Mr. Cross (Bristol) spoke upon the prevention, and expressed his disapproval of the operation known as Mules's which, in his experience, had lead to the occurrence of sympathy. Dr. Parisotti, Wickerniewicz (Posen), and Fulton (St. Paul) spoke. Mr. Berry (Edinburgh) considered that Deutschmann had not proved his case. In fourteen eyes removed by him for exciting sympathy, no micro-organisms could be detected. Professor Colin (Breslau) described a case of simulation of sympathetic blindness. Mr. Story (Dublin) warmly supported Deutschmann's opinions, but thought the general septicæmia that occurred in his experiments lessened their demonstrative value. Objectors would always exist until he had produced sympathy without it. He had observed meningeal symptoms in his own practice. Iridectomy had never suceeded in the second eye, but he had been most successful in treating such cases by the method proposed by the late Mr. Critchett in the *Ophthalmic Review* some years ago Dr. Cean (Bucharest) spoke. Professor Aaab (Zurich) had found bacilli in eight out of twelve eyes enucleated for panophthalmitis. Dr. Rosenmeyer (Frankfurt) had seen atrophy occur from retrobulbar) inflammation due to sympathy with-) out any papillitis. Dr. Hill Griffith (Manchester-stated that Mule's operation was most successful in properly chosen cases. Dr. Deeks (New York) opposed Deutschmann's views, as the inflammation he had produced in the second eye was merely a part of a general pyæmia. Dr. Levy (Strassburg), Germann (St. Petersburg), Logetshmiksoff and Pe'uger (Berne) spoke, and Drs. Brailey and Deutschmann replied.

Iridocyclitis after Influenza, etc.—Professor Lagueur (Strassburg) read a paper upon iridocyclitis after influenza. Dr. Gallemaerts (Brussels) exhibited the apparatus of Léon Gérard for the diagnosis of magnetic foreign bodies in the eyeball. Professor Hirschberg discussed the communication.

Endothelium of Anterior Chamber.—Dr. Nuel (Liège) read a paper upon the endothelium of the anterior chamber, and exhibited microscopic specimens showing stomata in the endothelium covering the anterior surface of the iris of rabbits.

Sympathetic Ophthalmia.—Professor Rosmini (Milan) presented a communication on the treatment of sympathetic ophthalmia and of trachoma.

Treatment of Acute Panophthalmitis.—Dr. Boe (Paris) read a paper on the treatment of acute panophthalmitis. He had succeeded in isolating a streptococcus which produced contagious panophthalmitis. He advised evisceration and antiseptic injections as preferable to enucleation. Professor Pflüger (Berne) and Dr. Cleibret (Clermont Ferrand) discussed this paper. The latter strongly supported the views of MM. Abadi and Darien as to the hypodermic injections of perchloride of mercury in all cases where mercurialisation is desirable.

The Vitreous in Glaucoma.—Dr. Haensell (Paris) read a paper on the pathology of the vitreous humours in glaucomatous eyes. The author's conclusions are that the glaucomatous process consisto in a hyaline degeneration which invades gradually the cells of all the intraocular tissues, and rneders them incapable of performing their vital functions. This degeneration commences in the papilla, and spreads thence to the vitreous. It precedes the states of high tension.

Treatment of Choroid-Retinitis.—Dr. Darien (Paris) read a paper on a new treatment for central choroido-retinitis and choroiditis disseminata. The treatment consists in hypodermic injections of perchloride of mercury. Drs. Cleibret and Van Millingen spoke in approval of the treatments, and Dr. Darien replied.

Coloboma of Choroid.—Dr. Talko (Russia) reported a case of bilateral coloboma of the choroid with normal iris, exhibiting drawings of the eye.

Fatigue of Visual Field.—Dr. Willbrand (Hamburg) read a paper upon fatigue of the visual field, and showed charts of the field of vision in illustration of his paper. In the discussion, Professor Pfluger drew attention to the many possible sources of error in examining for such defects.

Formation of New Eyelid.—Dr. Wickerniewicz (Posen) described a plastic operation for forming a new eyelid after extirpation of a lid tumour.

Eye Lotions.—Dr. Franke (Hamburg) read a paper upon the infection and disinfection of eye lotions. He had found no agent equal to corrosive sublimate.

Chorciditis and Osteitis Diformans.—On August 8th, Mr. Jonathan Hutchinson (London) exhibited pictures of a form of choroiditis ocurring in the subjects of osteitis deformans (Paget's disease), and also of a peculiar form of serpiginous, central and symmetrical choroiditis. The latter could not be attributed always to syphilis.

Ultra-Violet Rays in Spectrum.—Dr. Widmark (Stockholm) presented a communication on the action of the ultra-violet rays of the spectrum. The author has experimentally proved that the irritation caused by electric light is due to its action on the media, and not to its effect upon the retina, and he has established that this action is due to the ultra-violet rays.

Exhibits.—Dr. Javal (Paris) exhibited a Biconical Lens. Dr. Valude (Paris) exhibited a case of *Verres Toniques.*

Ophthalmometry.—Dr. Sulzen (Winterthur) read a paper upon the bearing of the angle, to ophthalmometrical measurements, and its determination by means of the ophthalmometer. Professor Pelüger (Berne) gave an account of some ophthalmometrical observations. In a discussion on ophthalmometry, Professor Fuchs (Vienna), Dr. Swan Burnett (Washington), Dr. Javat (Paris), and Professor Cohn (Brelau) expressed their favourable opinion of the ophthalmometer.

Retinal Changes in Hydrophobia. Dr. Falchi then requested Professor Helmholtz to take the chair, after which he read a paper upon the retinal changes in hydrophobia, produced experimentally.

The Optic Nerve.—On August 9th, Dr. Bernheimer (Heidelberg) read a paper upon an anomaly in the optic nerve, and upon the anatoms of the roots of the nerve.

Siderosis Bulbi.—Dr. Bunge (Halle) read a paper upon siderosis bulbi, and exhibited specimens.

Cataract Extraction.—Dr. Bono (Turin) read a paper upon 1,250 cases of cataract extraction. In the last 200 only 1 per cent. were lost. and 7 per cent. were but partially sucessful. The operation done was that of Sperino without iridectomy. In the discussion, Dr. Wickerkiewicz expressed himself as daily more satisfied with the results of his method of washing out the anterior chamber.

Microscopical Sections.—Professor Uhthoft exhibited microscopical sections and drawings of various Pathological States of the Optic Nerves.

SECTION OF LARYNGOLOGY AND RHINOLOGY.

(*Continued.*)

Paper and Demonstrations.—On Wednesday, Aug 6th, Dr. Thœd. Flatau (Berlin) exhibited a series of mircroscopic specimens of injected tissues illustrating the free communication between the lymph channels of the nose and those of the membranes of the brain. Dr. Micheal (Hamburg) read a paper on melanosorcoma of the nose, and one on a peculiar complication of tracheotomy in elderly people. Dr. Bresgen (Frankfürt) commended methyl violet in the treatment of various throat and nose diseases. Dr. Roe (U.S.A.) read an interesting paper on the application of the aseptic and antiseptic methods in nasal surgery, in which he contended that these should always be adopted. After the papers for the day were finished, Dr. H. R. French, of Brooklyn, N.Y., gave a demonstration in the Urania Theatre on the action of the glottis in singing. Selected specimens of over a thousand photographs of the larynx in action in different singers, were projected on a screen by the oxyhydrogen lamp, and served to demonstrate how much more complicated the appearances are than is generally imagined, and how different in different people.

Intubation of Larynx.—On Thursday, Aug. 7th, the day's proceedings commenced with a prolonged and interesting debate (inconjunction with the Sections for Diseases of Children) on intubation of the larynx. In this Drs. O'Dwyer, Ranke, Northrup, Hörk, Schwalbe, Casselberry, and Massei took part. M. Bouchut then gave a demonstration with an excised larynx of his new tubes for intubation, which are stated to have the great advantage of being easily retained in position. They are made by Mathieu, of Paris.

Surgical Treatment of Laryngeal Phthisis.—Professor Heriug (Wsrsaw) read a paper entitled Can phthisis of the larynx be perfectly cured by surgical treatment? and illustrated his paper by preparations.

Deviations of Nasal Septum.—Professor W. Chapman Jarvis (New York) then exhibited and explained his very ingenious and original instruments (made by Ford, New York) for operation on deviations and spurs of the nasal septum. They consist of variously-shaped planes, gouges, trephines, and chisels made to revolve by an electric motor, and constitute a great advance on all previous attempts in this direction. He also exhibited a nasal clamp for performing nasal septum operations without loss of blood.

Motor Innervation of Larynx.—In the afternoon a combined sitting was held with the Sections of Neurology and Phyisology, in order that Dr. Felix Semon and Professor Victor Horsley might demonstrate the facts they had ascertained as to the central and peripheral motor innervation of the larynx. The experiments were successfully performed, and were witnessed by some 500 members of the above Sections.

Treatment of Laryngeal Phthisis.—On Friday, August 8th, the proceedings commenced with a debate on the treatment of laryngeal phthisis, in which Drs. Steinmann and Störk took part, as well as many others. Professor Krause gave several members the opportunity of seeing his method of treatment of laryngeal phthisis carried out at his "Poliklinik." In one new case, the extreme dysphagia and hoarseness were marvellously relieved immediately on the curetting of the the infiltrated tissues, and he showed cases in which the local lesions had been completely cured, leaving cicatrices.

Syphilis of Air Passages.—A discussion on syphillis of the upper air passages was led off by Drs. Schröetter and Lefferts.

Picnic.—In the afternoon the Berlin Laryngological Society entertained the Sections to an enjoyable water picnic on the lakes of the Havel river, near Potsdam.

Acute Infectious Inflammations of Pharynx and Larynx.—On Saturday, August 9th, the final formal subject of debate, acute infections inflammations of the pharynx and larynx, was ably introduced by Drs. Massei and Moaitz Schmidt, and a good discussion ensued. The remaining papers were then read, or taken as read.

Clinical Demonstrations.—In the afternoon many of the members visited Professor B. Fränkel's policlinic, where Dr. Rosenberg demonstratad his method of treatment of laryngeal phthisis with some cured cases, and Dr. Braun (Trieste) illustrated the practice of massage in nose and throat disease.

Exhibits.—Among other things of interest (on view in the museum) were Professor Tobold's set of benign and malignant tumours of the larynx, executed in the highest style of art; Dr. Hennig's studies in oil of nasal, pharyngeal and laryngeal diseases; Dr Heymann's series of preparations illustrating the anatomy and pathology of the accessory cavities of the nose; various pathological specimens exhibited by Professor B. Fränkel; and some complete collections of all the newest and best apparatus for laryngological and rhinological work.

SECTION OF DERMATOLOGY.

The Section was constitued on August 4th, under the presidency of Dr. Lassar (Berlin). Its subsequent meetings throughout the week were held in various localities, and ultimately *all frêsco* in the exhibition grounds with the pleasing accompaniment of tobacco. Messrs. Cashary (Konigsberg), Doutrelepont (Bonn), Köbner (Berlin), E. Lesser (Leipzig), G. Lewin (Berlin), Neisser (Breslau) Unna (Hamburg), and A. Wolff (Strassburg) acted as members of committee. English dematology was represented by Hutchinson, Malcolm Morris, Crocker, Colcott Fox, Mapother, Pringle, Brooke (Manchester) Taylor (Liverpool), and Abraham: while Sherwell, Bulkley, Robinson, and Morison represented America.

Inflammation, Skin Affections, etc.—The buisness of the Section was inaugurated on August 5th, by the President in a short paper on the treatment of the inflammatory affections of the skin, but no discussion ensued. The subsequent paper on the prognosis and treatment of chronic gonorrhœa in both sexes by Doutrelepont, although possessing little or nothing of dermatological interest, provoked considerable discussion, the contributions of Jullien (Paris) and Sinclair (Manchester) being of special interest.

Medicinal Rashes.—On August 5th, Professor Unna introduced the subjects of the nature of medicinal rashes. Very elaborate and valuable papers were read by Colcott Fox, and Brooke, who were the official reporters. The discussion which followed was animated, and was participated in by Leloir who cited rare forms of eruption from iodide of potassium, salicylate of soda, and sulphonal; Behrend, Crocker, Köbner who dwelt on quinine rashes; and Dubois-Havenik (Brussels). Hutchinson, Fox, and Crocker exhibited several illustrative water-colour drawings of interest.

Tertiary Syphilis.—On August 6th, various questions relative to the conditions which cause the development of tertiary manifestations, and to the

treatment of syphilis in its different stages, were raised by Köbner, Haslund (Copenhagen), Leloir, and others, but no new lights were thrown on this rather threadbare subject.

Leprosy.—In the afternoon, Mr. Jonathan Hutchinson opened the debats on leprosy, which proved the most animated and interesting throughout the week. He announced his entire acceptance of the ba illary theory of the etiology of the disease, and once more enunciated his well-known "fish theory," supporting it by numerous cogent and well-arragned facts, and by much persuasive eloqeence and plausible reasoning. Various considerations opposed to Hutchinson's views were adduced by Arning, Petersen (St. Petersburg), Schusler, and Kaposi. Dr. Leloir expressed himself as totally opposed to the "culinary" theory, and on the assumption of its contagious nature, as in favour of the establishment of leper colonies. Dr. Abraham asked for some explanation of the now notorious Dublin Cave, and advocated the claims of the National Leprosy Fund. Mr. Hutchinson's reply was able and characteristic.

Pigmentations of Skin.—A tedious and barren discussion on the pathogenesis of pigmentations and discolorations of the skin occupied the forenoon of August 7th. In it Drs. Caspary, Kaposi, Ehrmann (Vienna), Jarisch (Innsbruck), Kromeyer (Vienna), and Blaschko took part. The only general deduction to be drawn was that direct nerve influence is now considered to be a much less important factor in the etiology of abnormal pigmentation than was formerly maintained.

Lichen Ruber Acuminatus.—An interesting and exaustive paper by Dr. Adole Havas (Budapesth) on the so-called lichen ruber acuminatus of Hebra citing two cases, resulted in the admission by Dr. Neumann (Vienna) of the identity of the disease with the pityriasis rubra piliaris of Devergie, the existence of which as a morbid entity was accepted by the great majority of dermatologists at the Paris Congress of 1889, and must now be consideaed as fully established.

A writer in the *British Medical Journal* suggest that a pencil or stick for application to chafed and irritated surfaces, or to skins especially susceptible to insect bites, etc., may be made by adding two per cent. of cocoaine to the ordinary cocoa butter pencils, giving immediate relief when rubbed over the spot.

M. Loison (*The Lancet*, June 21st), has devised a simple plan for detecting terpin in the urine in very small quantity, based on the fact that this substance, when treated with hydrochloric acid, evolves a hydrocarbon which colors chloride of antimony red.

Dr. J. William White (*Medical News*, June 14) recommends the following mixture in capsules, for the treatment of acute urethritis:—

Salol,	gr. iiiss	
Oleoresin of cubebs,	gr v	
Balsam of copiava (Para),	gr. x	
Pepsin,	gr. j.	M.

The discharge, in two-thirds of the cases, ceased within a week. In the majority of cases he also recommended an injection of gr. ij-x of sulphocarbonate of zinc in a 10 to 15 per cent. solution of peroxide of hydrogen.

CHOLERA INFANTUM.

Twenty deaths last week from cholera infantum, and sixty-eight from other affections of the gastro-intestinal apparatus, warn us that the summer is here and the annual slaughter of the innocents has commenced. Although there have been radical changes in the current views as to the pathology of this group of diseases, the effects upon the annual mortality are not as yet very marked. Therapeutic applications have been made, but have not as yet been generally accepted by the slow-moving body of the profession. Two ideas are to be kept in mind concerning the summer diseases of children; intestinal asepsis and the regulation of the diet. It is instructive to glance over the pages of the older text-books, such as the earlier editions of Meigs and Pepper, and note the blind floundering of the therapeutist before the development of the germ theory and the researches upon ptomaines gave us a definite working theory. The intestinal canal of the infant is a breeding ground for countless microzymes, good, bad, and indifferent, which carry on their operations unceasingly; when the combined influences of tropic heat, bad hygienic surroundings and unwholesome food lower the vital forces of the child to a certain point, these organisms, or their toxic products, pass through the ungarded portals and manifest their presence in the body by their appropriate effects. The first indications of abnormal action in the intestinal canal, undue fetor, fermentation or diarrhœa, should be promptly met by the administration of such substances as will correct the difficulty and put the primæ viæ in the state of asepsis. A number of agents have been employed for this purpose, and good results have been reported from resorcin, naphthol, mercury, salicylic acid, subiodide of bismuth and solol. It is quite natural for the physician who has experienced the great benefit of intestinal antisepsis to become partial to the agent which has first afforded him this great advantage over his previous practice. Nevertheless, there is one of these agents which must be better, taken all in all, than the others, and the best is the sulpho-carbolate of zinc. It is free from the unpleasant taste of some, the irritant qualities of others, the toxic possibilities of others; it does not interfere with the digestive functions, and it is at least equal in efficiency to all its rivals. It possesses all the advantages, and no disadvantages. In the gastric cases it relieves the vomiting at once. In dysenteric cases it may be injected into the bowels with the best results.

For children, the sulpho-carbolate is best given in doses of one-half to two grains, repeated every one to four hours; the frequency being regulated by the effect upon the stools, and the

object being to keep them free from fetor. In dysenteric cases, five to ten grains may be injected in four ounces of hot water.

Of equal importance is the diet. Thanks to Vaughan, we know what an egregious mistake we made in pinning our faith upon milk. That this substance should have attained its undeserved place in the dietary of the sick is an illustration of the shallow reasoning upon which much of our practice is still founded. We recognize the absurdity of the time when saffron was given for jaundice because both were yellow; but this was a trivial matter besides the use of that summary of all that is undesirable in a sick child's diet—milk. Variable in composition: disease transmitting; liable to adulteration; prone to decomposition; apt to absorb disease; of the utmost difficulty to preserve; a culture ground for almost every known disease-germ; if there is a bad qualily which a food can have which may not be found in milk, the writer knows it not.

Our preference is decidedly in favor of the prepared infant foods. The question of their being patented or not we leave to those who look upon such matters as of greater importance than the lives of their little patients. The superiority of those foods which have been deprived of their innutritious constituents and brought into such a state as to be readily digested by the child, is incontestable. Reed & Carnrick's, Nestle's and Mellin's foods, with the raw, scraped beef and the raw white of an egg dissolved in ice-water are forms of food for sick children which will meet every indication of the digestive requirements and idiosyncrasy of taste. Add to them Bovinine, a food and a stimulent, and it will be difficult, indeed, to find a case which requires an addition to this list. To these foods and the antiseptic which he has recommended for the past four years, the writer attributes a degree of success in the management of summer complaint which he never obtained previously, and which leaves little opportunity for improvement.—*Times and Register Editorial—Dietetic Gazette.*

For Fissure of the Nipples, the following application is recommended. (*Amer Pract and News*) :—

R. Salol,		ʒj
Ætheris,		fʒj
Cocain, hydrochlorat.,		gr. ij
Collodi,		fʒv. M.

For tender feet, *The Dixie Doctor* recommends a mixture of two quarts of cold water, two tablespoonfuls of ammonia, one tablespoonful of bay rum. Sit with the feet immersed for ten minutes, gently throwing the water over the limbs upward to the knee. Then rub dry with a crash towel and all the tired feeling is gone. This is good for a sponge-bath also.

Beef juice is more tasty and appetizing for the invalid than beef tea (Mrs. S. T. Rorer, *Dietetic Gazette*, June 1890.) It may be made as follows: Broil a half pound for just a moment over a quick fire, then score it thoroughly, put it in a lemon squeezer, and press the juice into a cup, add a grain of salt, stand the cup in hot water for a moment until the juice is warm, and use it immediately.

Among new drugs recently investigated are two of much promise, Cocillana and Naregamia Alata. The evidence thus far obtained from clinical experience would indicate that these remedies may prove an important addition to the expectorants and respiratory stimulants now employed. In the spasmodic cough of acute bronchitis, in the hacking couth of phthisis and wherever there is marked interference with the respiratory function through accumulation of secretion of the inflamed membranes, these remedies are likely to prove efficient. Messrs. Parke, Davis & Co., who have introduced these remedies, offer samples of them to physicians desiring to test them clinically, also reprints of articles concerning them, free of charge.

The habitual drunkard in Norway or Sweden renders himself liable to imprisonment for his love of strong drink, and during his incarceration he is required to submit to a plan of treatment for the cure of his failing which is said to produce marvelous results. (*Scientific American*, June 21st.) The plan consists in making the delinquent subsist entirely on bread and wine. The bread is steeped in a bowl of wine for an hour or more before the meal is served. The first day the habitual toper takes his food in this shape without repugnance; the second day he finds it less agreeable to his palate; finally he positively loathes the sight of it. Experience shows that a period of from eight to ten days of this regimen is generally more than sufficient to make a man evince the greatest aversion to anything in the shape of wine. Many men after their incarceration become total abstainers.

Dr. James Finlayson, referring to the occurrence of obscure febrile attacks in the course of Chorea, referable to endocarditis (*Archives of Pediatrics*, July, 1890), holds strongly to the view that rheumatism and chorea are closely related. When such pyrexial attacks are recognized, the child should be kept completely in bed during the febricula; this is often so slightly marked and so completely dissociated from disagreeable symptoms that it is sometimes difficult to pursuade the patient to keep at rest. But even after the pyrexia subsides the child should still be kept at rest for a few days. In this way we may at least hope, by lessening the strain, to minimize the results of the injury done to their valves of the endocardium, and serious damage may be thus avoided, or at least lessened.

In the *Zeitschrift für Therapie* for April 1st, 1890, a number of formulæ are given for the external and internal employment of the remedy, of which we produce the following :—

℞. Salicylate of mercury, gr. xv
Powdered licorice-root, enough to make 60 pills. M.
Sig.—1 to 2 pills to be taken 3 times daily, after eating. (Schadek.)

℞. Salicylic acid,
Potassium carbonate, āā gr. ij
Distilled water, ♏clx.
Sig.—For subcutaneous injection. (Plumert.)

℞ Salicylate of mercury, gr. xv
Liquid paraffin, ♏clx M.
Sig.—For intramuscular injection. (Jadassohn and Zeising.)

℞. Salicylate of mercury, 1 part
Vaseline, 30 parts.
Sig.—As a salve or ointment. (Plumert.)

℞. Salicylate of mercury, gr. xv
Magnesium carbonate, ʒ v.
Sig.—As a powder for external employment. (Plumert.)

℞. Salicylate of mercury, gr ss
Sodium carbonate, gr. xv to xlv
Distilled water, ℥ viij.
Sig.—For an injection in gonorrhœa. (Schadek.)

℞. Salicylate of mercury,
Potassium carbonate, āā gr. xv to xlv
Distilled water, ℥ Oij.
Sig.—For injection in gonorrhœa. (Plumert.)

A writer in *The Lancet* writes as follows in answer to the question, When is a Child Viable?

"In January of last year I attended a lady during her first pregnancy. She had had lead poisoning, was suffering from anasarca, and the urine contained a large quantity of albumin. About a forthnight before the completion of the seventh month she had a severe convulsion, and I induced premature labor and delivered her by forceps of a male child, weighing one week after birth 38¾ oz., a month later he weighed 4 lb. 11 oz., at six months 8 lb. 1 oz., and when a year old he had just reached a stone in weight. For two or three weeks after birth he was kept wrapped in cotton-wool and surrounded by hot-water bottles. Feeding was by cows' milk and water."

Boroglycerin-cream, the useful applications of which are sufficiently apparent, may be made as follows (*Pharm. Central*, in *Pharm. Record*, June 2d): i.o boric acid is dissolved with the aid of heat in 24.0 glycerin and allowed to cool. 5.0 anhydrous lanolin and 70.0 paraffin ointment are melted together, colored by addition of 0.01 alkannin, the boroglycerin added, stirred to creamy consistence and perfumed with one drop each of oils of rose and bergamot.

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MONTREAL, OCTOBER, 1890.

THE IMPORTANCE OF ATTENDING MEETINGS OF MEDICAL SOCIETIES.

The season has once more come around when the different local medical societies have begun their work—work which is generally of great importance, for it is here that the harvest of medical research and experience is gathered in, thoroughly threshed out and the wheat separated from the chaff. This wheat is then fit for stowing away, to be brought out as occasion requires, at the larger and more important meetings of the profession in the Province or Dominion. We say that it is threshed out because for the elucidation of the facts of a case there is nothing so good as a fair and square discussion of those facts before a healthy medical society, composed as it generally is of men accustomed to looking at these facts each in his own way. We can recall many instances where a case has been brought up at a meeting of the medical society, which, after being thoroughly discussed has presented a very different appearance to the reporter of it, than when he entered the meeting, and

thus incalculable advantage is afforded both to the practioner reporting the case, to the members present, and last but not least to the patient himself or herself.

Another benefit of the meeting of the medical society is the bringing together of men who are most likely to be rivals in that particular field. If these men never meet each other, as they seldom do in the ordinary pursuits of practice, they will gradually come to have a distorted opinion of each other, which generally becomes corrected by a more intimate acquaintance. Indeed, the more often the medical men of a particular locality meet together, the better the feeling that will exist among them. It has often been remarked that the state of professional good feeling and courtesy is nowhere better than in Montreal; and it is admitted by most that a great deal of this is due to the beneficial influence of the two principal medical societies, English and French. The only thing to be regretted, is that they are not more largely attended, and that instead of only 30 to 50 of a membership of 100 or 150, there are not 75 or 80 present.

BISHOP'S COLLEGE.

The many friends and former graduates of Bishop's College will be pleased to learn that the present is the most successful session in point of numbers that the College has had since its inception.

The experiment of admitting ladies to this College on equal footing with the men has only been tried a short time, it is true, but so far it has proved eminently successfull. The lady students, themselves, are more than pleased with the manner in which they are treated by their fellow male students. Some anxiety was felt as to how they would fare among a crowd of young men at the hospital, but in this regard, we are also glad to be informed that the conduct of the young men towards them, is most gratifying. A good many young women in this city, are, we understand, closely watching the course of the experiment, and a number of them have signified their intention of joining Bishop's College next year, if the experiment this year continues to prove successful. As we predicted some time ago, this is the easiest, cheapest and quickest solution of the problem as to where women doctors are to get their education.

BOOK NOTICES.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS, consisting of Original Treatises and Reproductions, in English, of Books and Monographs selected from the latest literature of Foreign Countries, with all illustrations, etc. Contents: Insomnia and its Therapeutics, by A. W. Macfarlane, M.D. Index to Vol. vii. Published monthly. Price, $10.00 a year. Single copies, $1.00. September, 1890. New York: William Wood & Company 56 and 58 Lafayette Place.

THE SCIENCE AND ART OF OBSTETRICS. By Theophilus Parvin, M. D., L. L. D., Professor of Obstetrics and Diseases of Women and Children in Jefferson College, Philadelphia, and one of the obstetricians to the Philadelphia Hospital. Second edition revised and enlarged. Illustrated with two hundred and thirty nine wood cuts and a colored plate. Philadelphia, Lea Brothers & Co., 1890.

The author states in his preface that such additions and alterations have been made in this edition, as will cause the work to represent the subject in its present state of advancement. Also that they have been made with sufficient thoroughness to entitle the volume to be regarded as a new book. After a careful persual of this work there can be only one verdict, and that is that this work is unsurpassed by any other work on this subject in the English language. We have often been asked which did we think was the best text book to be had on Obstetrics, to which we have hitherto always replied without hesitation Playfair's; but since we have seen this classical work of Parvin's, we almost think the latter should take the first place. To borrow a well known expression it is the same as Playfair's, only more so. The great charm of both these authors is their ability to write just what the reader wants to know and no more. All that they say is pure wheat; there is no necessity of sifting a lot of chaff to get at it. There are many other works on obstetrics, some much more voluminous, others much smaller; but the former are diffuse and verbiose while the latter are incomplete. This work is bristling with quota-

tions, but instead of introducing long extracts from the works of reference, the author only draws upon these latter for his bare facts and figures. In the same manner while every important article that has appeared in obstetrical journals is referred to, the whole gist of the article is given in only two or three lines. In addition to the innumerable references the author also gives us the benefit of his own vast and ripe experience. In the paper, type, binding and the generosity with which it is illustrated the publishers have fully done their share, which, however, is only what we expect from the long established reputation of the house of Lea Brothers. We might add that owing to the above mentioned peculiarities of the work, it is equally adapted to the student, practitioner and professor of obstetrics. It may be ordered through any bookseller.

PERSONAL.

The many friends of Dr. E. T. Trenholme will regret to learn that owing to failing health he has been obliged to relinquish practice in Montreal, in order to seek a more congenial climate in Colorado or California. He was the first, and for many years the only, gynecologist in Montreal, and being possessed of great ability and courage, has enjoyed a widespread reputation as an operator. He was for several years Professor of Gynecology in Bishop's College, and is surgeon to the Women's Hospital. We wish him success in his new home.

A banquet was given on the 16th inst. to Dr. D'Orsonnens, on the occasion of the completion of his fiftieth year of medical practice, which was largely attended by both the English and French members of the profession. Next to the guest of the evening were the Deans of the four medical schools, each of whom made excellent speeches, that of the Dean of Bishop's College being received with especially marked approbation.

NEWS ITEMS.

The subject of uterine disease reminds me that during the past six months I have had my attention drawn to a remedy which goes under the name of Dioviburnia, the formula of which is given by the proprietors, it being composed of equal parts of the fluid extracts of viburnum pronifolium, viburnum opulus, dioscorea villosa, aletris farinosa, helonias dioica, mitchella repens, caullophyllum talictroides, sautellaria lateriflora, (each fluid ounce contains ¾ dram each of the fluid extract). The proper dose is, for adults, from a dessert to a tablespoonful three times daily after meals. In urgent cases with much pain it should be given every hour or two in a half glass of hot water. I am free to say that with the exception of the "black law" (a most valuable remedy) I was not familiar with the component parts of the Dioviburnia, but having read the emphatic endorsement by Drs. J. B. Johnson, and L. Ch. Boiliniere, of St. Louis, two of the most eminent professors and practitioners of the city, as well as that of Dr. H. Tuholske, I was induced to give the compound a fair and thorough trial, and I am convinced that in Dioviburnia we have a valuable addition to our armamentarium in our battle against the enemies of the noblest work of God—Woman. —*Medical Mirror.*

A $200,000 LIBEL SUIT.—Suit has been entered by William Radam, manufacturer of Radam's Microbe Killer, against the *Druggists Circular*, of New York, for $200,000 damages, the largest amount, so far as heard from that was ever asked for in a libel suit of this kind.

The pleadings show that the action is brought to recover damages claimed to have been done the business of the plaintiff by an article published in the *Druggists Circular* for September, 1889. This article gave the result an analysis of the Microbe Killer made by Dr. R. G. Eccles, a prominent chemist of Brooklyn, who stated that an identical preparation could be made by the following formula:

Oil of vitriol (impure).....	...4 drams.
Muriatic acid (impure)	1 dram.
Red wine, about.....	1 ounce.
Well or spring water.....	1 gallon.

This mixture, it was alleged, could be made at a cost of less than five cents per gallon for which Radam charged three dollars.

It was further alleged that while when properly used sulphuric acid, the principal constituent of the Microbe Killer, was a valuable medicine, it was, when taken without due caution or advice, a slow but certain cumulative poison; and the theories advanced by Radam, as to the causes of diseases and the proper method of treatment, were alleged to be totally erroneous. Col. Robert G. Ingersoll, the famous lecturer, is the counsel for the plaintiff.

The *Druggists Circular*, which is published at 72 William street, New York, expresses a desire to hear of any case in which unfavorable results have followed the administration of the Microbe Killer or of any other fact that would be interesting under the circumstances. They claim to have published this analysis without malice and with the sole intention of protecting the public from the loss of their health and money by the use of a dangerous nostrum.