

atus is made of heavy copper, which is silver-lined and has a capacity of about one and one-half gallons. The remainder of the apparatus is mostly brass, highly polished and carefully finished. The cover of the autoclave, which rests on a rubber band so that it can be tightened to avoid any leakage, is equipped with a pressure-gauge, a sleeve in which the thermometer is placed and a stop-cock by which one regulates the escape of formaldehyde gas. The apparatus is heated by means of a special lamp, the flame of which is fed by kerosene vapors. By a small screw one can regulate the heat and by using the pump occasionally one can increase the heat.

Formochlorol is a saturated solution of formic aldehyde and a neutral or indifferent mineral salt and absolutely free from methyl alcohol. When heated under pressure, formaldehyde vapors are evolved in a non-polymerized condition. Before putting the formochlorol in the autoclave, it should be well mixed so as to distribute any precipitate which may be in the same. This deposit is not an impurity, but on the contrary is one of the essential parts of the solution.

Full directions as to the procedure and the methods of bacteriologic testings, too long to be quoted here, are given in an article by Dr. WILSON, in the *Brooklyn Medical Journal* for November. One experiment was done May 27, 1897, in a room having 1,165 cubic feet, with 1,250 c.c. of formochlorol and four hours exposure. The organisms used in this test were those of anthrax, diphtheria, typhoid fever, etc. No moist cultures were used, as it was intended to make the experiment correspond as closely as possible to actual working conditions and in practice we are seldom called upon to disinfect articles that are not dry. The formalin mixture remaining in the autoclave was carefully removed and measured. It amounted to 2,300 c.c. and contained 9.27 per cent. of formaldehyde corresponding to 213.2 grams. As the original mixture contained 500 grams, 286.8 were present in the chamber, and as the capacity of the chamber is 10,188 cubic meters, each cubic meter contains 28.11 grams of  $\text{CH}_3\text{O}$ . This corresponds to a volume per cent. of 1.93, or in round numbers 2 per cent.

This experiment proves that, under the conditions adopted, 2 per cent. is sufficient to disinfect anthrax spores in the middle of a mattress, a very severe test, and, on this account, it is recommended that 2 per cent. be the minimum of gas allowed. As regards the temperature and the vacuum, the experiment shows that a temperature of 65 degrees C. is high enough, and that a vacuum of at least half an atmosphere is desirable. It will be seen that the temperature exercises a marked effect on the disinfection, and the failure of the first experiment, where a much larger percentage of gas was used, must be attributed to the low temperature at which it was conducted.

This method, therefore, gives a convenient and satisfactory disinfection of goods that would certainly be injured, if not ruined, by the use of steam.

The advantages of the autoclave over the lamps are at once apparent: 1. It produces a large volume of the gas. 2. Rapidity of application. 3. It is constantly under observation and located outside the room. 4. No damage to disinfected goods.

The experiments with lamps previous to this apparatus have been instructive. As long ago as November 1895, we began at the Hoagland Laboratory a series of experiments with this gas. At that time ADNET, in Paris, had devised the first of the lamps.

We sent for one, and after the usual delay we obtained a lamp from ADNET, and, using that as a model, we had a lamp constructed containing more burners. ADNET's was a single-burner lamp, something like a student's lamp, having a receptacle for the methyl alcohol and a cone of platinum gauze on the other side. This lamp made a very bad odor in the room, but it was difficult to tell how much was due to the formaldehyde and how much was due to the unoxidized methyl alcohol. We placed it in an ordinary clothes-press, such a closet as one ordinarily finds in a sleeping room, so that all of the cultures exposed to the action of the lamp were within five feet of the burner. The result was, we could not, no matter how long we left the lamp in, succeed in killing dry diphtheria cultures; we did succeed with moist cultures, but the dry ones always survived. Then we had a lamp made with four burners, and after that one with eight burners, and we took that out to the Kingston Avenue Hospital and put it in the isolation pavilion and tried the same cultures there, and we drove everybody off the grounds, with the exception of the test-organisms, and we came to the conclusion that lamps were impracticable and rather dangerous for use in the Health Department, because very often such a lamp, in the hands of an unskilled or careless man, if put in a room and started might set fire to the house.

It is true that very many manufacturers are now engaged in the production of these lamps. I think within a month we have received as many as a dozen circulars from different manufacturers in regard to these lamps and they make extravagant claims for them, which on careful investigation I am sure will not be borne out. I would suggest a scheme which seems to me is a very feasible one, and one which could be readily carried out: That the Health Department furnish to physicians who desire to do such disinfection a package of test-organisms and let them put it in the rooms with their lamps and return the package to the laboratory, and learn the next day whether their disinfection was efficient or not. I think that this would settle the question of lamps very shortly.

This apparatus which I show you is imported, and the duty brings the cost of it up; it costs \$100; but I received a circular today from a firm in New York, who manufactures an apparatus almost like this. It seems from their prospectus to be very efficient. It is in three sizes, the smallest size costing \$30 and the largest for hospital use, \$100. The one for \$30 has about the capacity of this one.

## CORRESPONDENCE.

### Reminiscences of a Recent Visit to the Twelfth International Medical Congress at Moscow, Russia.

CAMBRIDGE, MASS., Nov. 26, 1897.

To the Editor:—The International Medical Congress at Moscow, August 19–26, was under the high protection of His Majesty, the Emperor Nicholas II. and the August Patronage of His Imperial Highness, the Grand Duke Sergius Alexandrovitch.

There were held three general sessions, which took place in the Grand Théâtre Impérial. Admission to a session was by card, which was issued by the committee having the matter under control. The number of delegates and registered members was so great that the invitations had to be limited to the

seating capacity. Most of the members, however, had during one or more of the three sessions an opportunity of witnessing the manner in which the general work was conducted. I was fortunate in receiving a card that admitted me to all the exercises. The opening session was the most important, on account of the presence of the Grand Duke and the high officers of the Imperial Court. The introductory discourse and address of the welcome given by the President of the Committee of Organization, Prof. N. B. Sklifosowsky, was in full accord with his ever watchful and sympathetic audience. The report of the Secretary-General, Prof. W. K. Roth, on the progress of the work of the Congress, on the large number of valuable contributions that had been promised and the unprecedented number of delegates that had already registered commanded the closest attention and approval. It was indeed a moment of supreme delight to have the opportunity of observing the dignity and, if I may be allowed to say, the grandeur of the man who for nearly three years past had performed that Herculean task of carrying on by the most skilful use of the French language, the extended correspondence necessary for the success of such an international meeting as was then taking place at Moscow.

The official addresses of the representatives of the various governments were an interesting feature of the opening session. The address of Prof. Virchow on "Die Rolle der Gefässe bei Entzündung" was the occasion for rapturous applause. The speaker's very presence stirred the soul of the Congress and added a charm to the great gathering that will not soon be forgotten, and though he had passed his 76th milestone, the quick flash of his eye, the merry play of his countenance, his keen wit and engaging manners, recalled to mind our student days when his work entitled "Cellular Pathology as Based upon Physiologic and Pathologic Histology," was regarded as the highest authority on the subject and was read with almost as much interest as a novel.

An address entitled, "The Classification and Surgical Treatment of Acute Peritonitis," was delivered before the second general session by our countryman, Dr. Nicholas Senn. The address was interesting and instructive and impressed the hearers that Dr. Senn was a thorough master of the subject with which he was dealing.

Perhaps one of the most brilliant efforts made by any speaker was that of Professor Lannelongue, who had for his subject "Surgical Measures to be employed in Tuberculous Cases." The speaker exemplified in his address the fact that the French vernacular was well adapted for the highest flights of "soul-ravishing eloquence."

The address of Professor Leyden of Berlin entitled, "Ueber die gegenwärtige Behandlung der Tuberculösen und die staatliche Fürsorge für dieselben," was looked forward to with perhaps more than ordinary interest, from the fact that he had been identified in some measure with Professor Koch in an endeavor to solve the question as to the best method of treatment for tuberculosis. As far as I could understand his address, which was delivered in German, he did not regard the use of tuberculin as a specific; the Professor relied more on climatic influences, upon the advantages of a residence in elevated centers where there is an abundance of sunlight and fresh air free from moisture. In cases, however, where the patient is feeble and there is much febrile disturbance and profuse hemoptysis, high altitude would be, for the most part, contra-indicated.

The addresses of Professor Krafft-Ebing of Vienna on the "Etiology of Progressive Paralysis," of Professor Metchnikov of Paris on "The Pest," of Professor Robert of Barcelona on "Certain Pathologic Characteristics of the Human Economy," of Professor Lombroso of Turin on "New Horizons and New Applications of Psychiatry," of Professor Loukanov of St. Petersburg on "The Inanition of the Cell Nucleus," and of

Professor Lauder Brunton of London on "The Relations between Physiology, Pharmacology, Pathology and Practical Medicine" also met with warm response and would compare favorably with the great productions put forth by speakers on similar occasions.

There were in attendance, including the women, upward of 10,000, of whom, according to the Secretary-General, 7,500 were delegates and registered members. More than half that number were from Russia. Germany sent upward of 800. The number of Austrians was nearly the same, while the number of French exceeded 400. Italy's quota was not far from 300, and England's list of delegates, notwithstanding the great attraction of the meeting of the British Medical Association at Montreal, Canada, was nearly as large as that of Italy. Sir William MacCormac and others of her illustrious members of the profession were in attendance. Scandinavia, Holland, and the remaining European countries were well represented. Delegates appeared from China, Japan and other Asiatic regions, and also from South America. Mexico sent Professors Licéaga, Lavista, Heréra, Noriéga, Carbajal and fifteen other delegates. The number of representatives from the United States was 124, of whom 37 were delegates from the AMERICAN MEDICAL ASSOCIATION; of this latter number there were from Cambridge besides myself two of our most worthy and eminent physicians, Dr. John L. Hildreth and Dr. Edmund H. Stevens. The closer sympathy or nearer touch in which were brought our American delegates and their gracious ladies and pleasing friends is to be counted as no inconsiderable part of the pleasure realized in journeying to such a distant meeting, the Mecca scene of our profession.

The number of papers presented to the Congress was not far from 1,000; the work was divided into twenty sections. The Section on Surgery had a large attendance. The titles of 140 papers were entered. Such names as Macewen of Glasgow, Doyen of Paris, Roux of Lausanne, Beck of New York, Czerny of Heidelberg, Ollier of Lyons, Israël of Berlin, Championnière of Paris, Oppenheim of Berlin, Murphy of Chicago, Tauber of Warsaw, and Preobragensky of St. Petersburg, when arrayed with those of many others no less illustrious, ought to be sufficient to indicate that good work was accomplished.

Surgery of the lungs was a prominent theme for consideration. In cases of abscess and gangrene of the lung, pneumotomy was regarded as sometimes indicated. The occurrence of cases of large tuberculous cavities in which there are distressing or immediately dangerous symptoms may sometimes demand incision and drainage for relief. In some cases of such disease, resection of one or more of the ribs in order to secure proper drainage was deemed advisable. Dr. Jacob Frank's demonstration of his "New Absorbable Intestinal Coupler" as a substitute for the "Murphy Button" attracted much attention.

The Section of Obstetrics and Gynecology, in which I registered, occupied the larger share of the time at my disposal. In this Section the titles of seventy papers were on the program. Professors Makéiev and Snéguirev of Moscow were the principal managing officers and were associated with thirteen members of the Committee of Organization. Seven secretaries were appointed to facilitate the work of the Section. The meeting of this department took place in the spacious hall on the second floor of the old University. It was a brilliant gathering; on the walls near the main desk hung a magnificent painting in oil of the Emperor, while on the right was also an exquisitely finished picture of a former empress. Behind this stand for the various speakers was placed a sounding board which improved the acoustic properties of the hall. At a long table sat the managing officers of the Section, the various members of the committee, the honorary presidents, prominent speakers and invited guests. The secretaries' table was on the right and the reporters' table on the left. The other members

and those who came to witness the proceedings occupied seats outside of the enclosure. The number in attendance was for the most part always sufficient to fill the hall to its fullest capacity. The Chairman, Professor Snéguirev of Moscow, began his address by taking for his motto that beautiful saying of Malgaigne, "Verité dans la science, moralité dans l'art." His reference to Raphael's Sistine Madonna was most happy; he affirmed that the beauty and health of the woman with the child in her arms, as personified by the artist, was no mythical or unrealizable representation; it is a perfect type of healthy and beautiful womanhood. It is the duty of science to contribute to such an end; we must therefore care tenderly for the child if we would preserve the race of mankind. By studying the phenomena of nature and assisting woman in conserving her energies, mutual love and respect will be strengthened and thereby her rights be increased and her duties materially lessened. In the paper on "Symphyseotomy," by Professor Varnier of Paris, the author remarked that the operation was no more dangerous in properly selected cases than were other recognized obstetric procedures. The operation could be resorted to in those cases in which the child was alive, the dilatation of the os and cervix was complete, the membranes were ruptured and the efforts at expulsion insufficient to effect delivery owing to the disproportion between the fetal and the maternal structures. The author's experience appeared to warrant him in saying that perfect restoration of the parts, after a resort to this means for relief usually took place by primary intention. The operation could without incurring permanent inconvenience be had recourse to, if necessary, several times on the same woman. The paper was ably discussed by Zweifel of Leipzig and Borsi of Genoa. The question relating to the advantages of colpotomy in cases of inflammation of the adnexa, of displacements and of neoplasms of the uterus was ably discussed by Candela of Valencia, Doyen of Rheims, and Dührssen and Martin of Berlin and Farza of Barcelona.

Surgical treatment for peritonitis was another favorite subject for consideration. The discussion was carried on by Martin of Berlin, Winckel of Munich, Christovich of Salonica and Noriega of Mexico. The consensus of opinion was favorable to a timely resort to operative procedures. Serotherapy, when employed in puerperal septicemia, was endorsed by Bar and Wallich of Paris, and Weinstein of Odessa.

"The Comparative Value of Different Operative Methods in the Treatment of Uterine Cancer and as the Means of Preventing Return of the Disease" was the subject of a paper by Winter of Berlin, and was freely discussed by Goubarev of Moscow. In this connection Doyen of Paris, took for his theme "Total Extirpation of the Uterus," and Landau of Berlin had for his paper, "Total Extirpation of the Uterus by the Abdominal Method." He also presented a report on 500 cases of total extirpation by the vaginal method with varying results. Among other speakers who discussed different themes were Peau of Paris, Wedorodoff and Goubarev of Moscow, Ott of St. Petersburg, Apostoli of Paris, upon the application of a new galvanic current (ondulatoire) to be employed in gynecology. Of the other speakers who presented papers on discussed subjects were Torre of Rome, Leopold of Dresden, Müller of Bern, Olshausen of Berlin, Weugebauer of Warsaw, Borav of Moscow, Cameron of Glasgow, Hennig of Leipzig, Pinard of Paris, Simpson of Edinburgh, Woltchini of Moscow, Rosner of Cracow, Twesternark of Stockholm, Colderini of Bologna, and Cholmogoroff of Moscow. "Perineorrhaphy, Immediate and Secondary," was the title of the last speaker's paper.

During the discussion of the several subjects the managing officers of the Section, Professors Makéiev and Snéguirev, were active in arranging matters that would expedite the work, while the honorary presidents were called upon in turn to preside and to control the discussion according to the manner that

had been determined upon by the committee. In the consideration of questions of operative technique beautifully prepared diagrams and drawings upon the blackboard were freely brought into requisition. The discussions ranged upon a great variety of topics growing out of the subjects presented in the papers, and were carried on by the several speakers in a most earnest, courteous, and dignified manner.

All the work accomplished tended to unite in kindly feeling the members one with another, and to render the meeting a scene of memorable occasion. After a speaker had taken part in the consideration of a subject that was not in his paper, he was presented by one of the secretaries with a card and pencil, that he might note down the leading points of his argument; this part of the regulation was strictly observed and was carried out to good advantage.

At 4:30 P. M. on August 24, the work of the Section was brought to a close. After a few words complimentary to the officers and the Committee of Organization, by Winckel of Munich, Torre of Rome, and others, the parting benediction was given by Professor Makéiev and by the chairman, Professor Snéguirev. It could not be otherwise than a season of pleasure to draw near the men whose names have in works of great importance, been so long familiar to us, and to see them facing each other, not with the purpose of advancing a dogmatic theory, but with a sincere desire to assist in the elucidation of that truth which would be of the highest advantage to suffering humanity.

The dinner given at the opening meeting of the Section by Professor Snéguirev and M. Schélapoutine, the founder of the Institute Gynécologique de Moscow, at Pocrowsky-Fili, was a most enjoyable occasion. The distance was some seven versts or three kilomètres from the Barrière de Dorogomilowo. The place was reached by carriage and in driving it was necessary to pass beyond the house (Koutousovskaja Izba) designated by an inscription and celebrated for the Council which was, under the presidency of General Koutousov after the battle of Borodino, during the French invasion in 1812, there held for the purpose of determining the expediency of evacuating the city of Moscow.

The dinner was followed by addresses and the rendering of vocal selections. It was attended by the officers and the committee of the Section, invited guests, and hostess, Madame Schélapoutine. Dr. Parvin and myself were, I believe, the only Americans who were present. As we returned at a late hour, by moonlight over the winding roads, through groves, open fields, and along the Moskva River, Moscow in the distance with her thousands of brilliant lights illuminating her many domes and pinnacles, and with her other semi-oriental adornings, had the appearance of a fairy city and presented a view that was most enchanting.

No one who is versed in the affairs of nations can doubt that the future of Moscow will be most favorable to her development, and that when the railway construction, which is being extended on a gigantic scale through Siberia and other parts of the Russian Empire, has been completed, this ancient capital will, by the importance of her situation, become one of the greatest emporiums of the eastern hemisphere.

The Institute of Gynecology has recently been constructed and was founded, as before remarked, by M. Schélapoutine in memory of his mother. A visit to the institution showed that the buildings were well situated and equipped with modern appliances and conveniences; that the appointments were excellent and the work carried on would compare favorably with that accomplished in the best hospitals of other places. Moscow has been famous for its institutions for promoting the different branches of medical science and for extending relief to the unfortunate, through the liberality of its hospitals, dispensaries and *cliniques*.

The Imperial Foundling Hospital is the largest infant asylum

in Europe; it affords an annual refuge to 17,000 abandoned children and occupies 81,800 square meters of land. It has for its number of inmates, including attendants, 7,000.

The Section dinner given at the Chasseurs Clubhouse, at Rue Wosdvienka, on August 25, was the occasion for another pleasant reunion. Most of the Sections had dinners during the same evening; the speeches and toasts following proved most entertaining and the opportunities that were there presented for conversation and kindly greetings have, as regarded by many, been rarely surpassed. At the close of the third general session addresses appropriate to the occasion were, as done in some of the Sections, delivered by the president and by prominent members from different countries.

The next congress is to be held in Paris in 1900. Professor Lannelongue was chosen president of the Committee on Organization and Professor Chauffard, Honorary Secretary-General.

In regard to the nature and character of the work accomplished by the Congress there can be no question as to its great importance to humanity and to the profession generally. There may have been encountered embarrassment by the use of some of the various languages that were officially allowed in the reading and the discussion of papers, but this feature could not have been a serious drawback to one who was acquainted with the general principles of subjects. The fact as already intimated, that so many noted delegates from France, Germany and other countries were present and took prominent part in the consideration of the work, is evidence that the meeting must have been productive of far-reaching results.

The committee of Russian dames having the approval and support of the Grand Duchess Elizabeth Feodorowna, and the advantages of the position of their ubiquitous president, Madame Sklifossowsky, are deserving of great credit for their arduous endeavors in planning and carrying out, on a most magnificent scale, a series of entertainments for the visiting bodies to Moscow. The features of these entertainments were of a social, historic and artistic nature, and were thoroughly enjoyed not only by the fairer sex, but by the gentlemen.

In closing I might say that the medical gentlemen of Russia have long since been recognized by the faculties of other leading nations; they have always been in close sympathy with the great merchants and with the commercial interests of their country. They used to good advantage their influence in securing the large appropriation from their government, beside contributing freely of their own substance toward bringing the work of the Congress to a most successful issue. They extended a most hearty welcome to their visitors. Their courtesy was phenomenal and their solicitude for the welfare of all is indeed worthy of emulation. The following from Dr. Leusser-Lissingen's "Farewell to the Congress of Moscow," expresses my feelings in regard to my visit in Moscow:

"Wahrlich, schwer wird's mir zu scheiden,  
Gar zu gerne war ich hier.  
Lass mein Herz sich nochmals weiden,  
Heilige Stadt, an deiner Zier!  
Lebe wohl, mein trautes Moskau,  
Märchenschöne Kremelstadt!  
Niemals wird mein Herz vergessen  
Was es hier empfunden hat."

AUGUSTUS P. CLARKE, A.M., M.D.

#### "Treatment of Inevitable Abortion."

BLOOMINGTON, ILL., Dec. 1, 1897.

To the Editor:—I read with interest, and with a large measure of approval, the concisely stated contribution of Dr. H. P. Newman on the "Treatment of Inevitable Abortion," in our JOURNAL of 27th ult. A paper on the subject of abortion before any medical body, or village society, or an international gathering, invariably elicits a spirited discussion, plainly indicating that there yet remains much to be desired in the management of such conditions.

The diversity of views usually expressed, tending all the way from a dull, blameable conservatism to dangerous radicalism, further indicates that all methods are unsatisfactory at times, disastrous often, and that the desired middle ground of action has not been reduced to a formula, embracing every probable situation. A careful analysis of Dr. Newman's article indicates clearly enough that he believes in and practices the rather advanced radicalism, and defends his position by his own results and the general tendency of the times in his direction.

The immediate danger, as stated by him, is hemorrhage; the degree of danger increasing with each day of gestation. To the third month, or rather to the time of definite formation of the placenta, the danger from hemorrhage is slight, but the remote probabilities of chronic metritis, subinvolution, salpingitis, etc., are considerable. Now when dangerous hemorrhage follows an interrupted pregnancy, there is no time lost in calling the doctor, and he in turn loses none in checking it, and in the vast majority of cases succeeds. In calculating from whence come the great number of unfortunate victims of the "remote probabilities" that throng dispensaries and gynecologic hospitals, we seldom take into account the large proportion that have never had treatment of any kind. From motives of concealment, economy and shame many women never consult a medical attendant, thereby losing the opportunity of preventing just such conditions as named above, and which the sensible treatment of Dr. Newman would avoid. Hence, from whatever point we view this matter, control of hemorrhage, avoidance of chronic pelvic disease, or sepsis, we inevitably reach the conclusion that far better results can be expected from this real conservatism of Dr. Newman than from the dangerous conservatism of chance. It may be depended on with positive certainty that the uterine contents, after the rupture of the amniotic sac, will be infected from the vagina within a very few hours, and a rational plan of treatment immediately suggests a clean, sterile uterus, and as that desirable condition is within reach of any skilful practitioner, there is but small excuse for the waiting plan. Those who advocate it never leave a woman with a leaking uterus, possibly a fetid one, without wishing the contents evacuated, and with the half fear that the inevitable tampon is simply blocking the way. Why then be burdened with this apprehension? The contents can be easily and safely gotten rid of, and why not have at least the satisfaction of seeing the source of danger where it will do no harm?

If hemorrhage is the urgent symptom, immediate emptying of the womb is conceded to be the prime necessity, and everybody does it and generally with gratifying success. If the hemorrhage continues and the uterus is not contracting promptly, pack it and pack it well with sterile gauze. You will not be doing your duty unless you do this. It matters but little whether the curette is large or small, dull or sharp, so you use it sensibly. You may not use the curette at all, and depend on thorough packing for the double purpose of controlling hemorrhage and separating the secundines from the uterine wall. In removing this packing you are many times rewarded by the expulsion of the embryo, sac and placenta at the same time. This is a pleasing result and you know then you will have no curette dangers to be afraid of. You have not only checked a hemorrhage, but you have lessened the chances of fatal septicemia and of an infected uterus and the consequent "remote probabilities" so woefully damaging to multitudes of women.

There is another point in Dr. Newman's paper which is not quite clear and possibly a trifle contradictory. He classes hemorrhage among the *immediate* dangers and further on goes deliberately about its control with the same preparatory technique that he does in a vaginal section, bath, sterilization of genitals, starvation for anesthesia and "free catharsis."