self in the presence of a few dozen of these women who are enthusiastic in their expression of the blessings they have received from these operations. It is not surprising, however, that vaginal extirpation of the uterus should have been slow in gaining recognition as a comparatively safe procedure. It has been practiced by many with an utter disregard of the sound surgical principles which govern opening the abdominal cavity above the pubes. Even recently, I note a doctor insisting that many forceps to secure the broad ligament are equally as good as a lesser number. When an operation is done in that manner, it leaves the contused gangrenous portions of the broad ligament to come in contact with portions of the omentum, mesentery and intestines, thus inviting septic peritonitis. Now, all of this could be easily prevented by first constricting the broad ligaments to a round mass by a single ligature, bringing them down into the angles of the wound, and transfixing with additional ligatures or applying a single clamp. In this way we have, not only complete sero-serous approximation of the entire wound with no raw surface whatever left within the peritoneal cavity, but more than that, by this rounding and bringing down of the broad ligaments and fixing them in the upper angle of the wound, we have the patient guaranteed against vaginal prolapse and its resultant cystocele and rectocele; sequelæ almost invariably following the operation where many forceps are used, and the broad ligaments are not first rounded. When about to visit Birmingham, Eng., some years ago, a professional friend, whose reputation in gynecology is international, provided me with a letter of introduction to Dr. Savage. I thought I knew of the man, believing that he was the author of a book on the female pelvic organs. I was mistaken. My introduction was to another man who in reality I had never heard of. I found him sitting as Chairman of the Gynecological Section of the British Medical Association. I shall always love my friend the better because of his kindly efforts to have me know this man. The meeting adjourned at 3 p.m. I accompanied him to his private hospital, saw him remove a kidney. I then rode with him to the Birmingham Hospital for Women, a distance of two miles, saw him make two abdominal sections. I never saw a more careful, painstaking, and at the same time rapid operator handle an instrument. I looked at my watch and found that I had been introduced to the doctor just two hours. I found that he had equal rights in the Birmingham Hospital for Women with the renowned Lawson Tait and was doing the same amount of work there, and wondered why the world had not heard more of this man. I learned that he had as much work as he could possibly do, and that there was so much reckless reporting of cases, that he was disinclined to compete with those less conscientious and truthful in their work. Most of our American cities have similar men. The reports of their conscientious, painstaking work are rarely seen. They are unwilling to compete with the modern hustlers with their loud declarations of success in societies and journals, aided by sycophants whom they employ to write their praise. Our literature has its good and bad teaching coming from those high and low in the profession; coming from those hustled into notoriety by cliques and rings, and coming from those manfully struggling against many obstacles thrown in their way. After all, we find in

it an abundance of knowledge and some wisdom.

"Knowledge and wisdom, far from being one,
Have oftentimes no connection; knowledge dwells
In heads replete with thoughts of other men;
Wisdom in minds attentive to their own.
Knowledge, a rude unprofitable mass,
The mere materials with which wisdom builds,
Till hewed and squared and fitted to its place,
Doth but encumber whom it seems to enrich.
Knowledge is proud to think it knows so much;
Wisdom is humble that it knows no more."

—Cowper.

By all the sacred memories which cling to the words mother, wife, sister or daughter, let him, who aspires to be the physician of women, be a gentleman. "A man of the keenest sensibilities and the most delicate sympathies." Let him be an *honest* man. Let *truth* ever be his guiding star. I can say in all sincerity that I believe my profession and my specialty have as large a per cent. of honest men and honest women as any other profession or any other business, and have no remedy to suggest to correct the wrong doing of the few who, disregarding that beautiful aphorism, "the surest way to secure professional preferment is to merit it," hustle for business in a way that would be beneath the dignity of men engaged in commercial pursuits.

"It were a heaven on earth
To have our minds illumined with knowledge
To move in charity
And turn on poles of truth."

—Sir Wm. Gull.

A DAY WITH PROFESSOR VIRCHOW AT CHARITÉ HOSPITAL, BERLIN.

BY ROBERT REYBURN, A.M., M.D.

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Among the most interesting memories that I retain of my trip to Europe last summer, was a visit that I paid to Professor Rudolph Virchow in Berlin, on July 23, 1892. Professor Virchow, to all Americans (and indeed to all men of every nation who sympathize with the cause of free speech and free thought), is the most interesting scientific man in Europe. He is not only preëminent as a scientist and pathologist, but is a man who always has aided the cause of freedom everywhere and especially in his own country. He was the man whom Bismark in his days of arbitrary power especially hated. In 1849, and for seven years thereafter, he was banished from his professional chair at Berlin, on account of his liberal opinions, but was recalled to his duties in the University in 1856. During the period of his absence he distinguished himself by the lectures he delivered in the University of Wurtzburg these were the first germs of the ideas, which finally developed into his great book on cellular pathology. Professor Virchow is director of the famous pathological institute of the University of Berlin, which is one of a group of buildings composing the medical department of that institution. The Charité Hospital, in which clinical instruction is given to the medical students of the university, and the laboratory buildings in which Professor Koch carries on his investigations, are also situated on the same grounds. In company with Dr. Fulleborn I attended Professor Virchow's lecture, which was held at 10 A.M., the subject of the lecture was carcinoma. I need scarcely say that I was deeply interested in both the man and

his subject. The room in which he lectured will probably accommodate two hundred students; every seat was filled and the students were almost all engaged in taking notes of the lecture, and were apparently eager to catch every word that fell from his lips. Around the table near which he lectured were a large number of pathological specimens, both in jars and on dishes, illustrative of the lecture. These were passed around the class from hand to hand as the lecture proceeded thus fully illustrating the subject.

Professor Virchow lectures in an easy colloquial manner. He speaks beautiful German and every word is pronounced so clearly and distinctly that he is easily followed even by foreigners who have an imperfect knowledge of the German language. After the lecture was over I went to his private office in the university building, and presented my letter of introduction from Howard University, and was very courteously received. Professor Virchow is of medium height, he is somewhat stout in figure, and is apparently in excellent health and vigor for a man of his years (he having passed his seventieth birthday).

He speaks excellent English and seems very kindly disposed towards Americans. During our conversation I asked him if he could not come over to Chicago during the coming year to our Columbian Exposition, and assured him that I felt certain he would receive a royal welcome from the medical profession in America. He replied, "No I think I cannot come; I am now past seventy and America is very far". His office was nearly filled with a large number of skulls of varying shapes and sizes, which he had brought there for the purpose of study. He stated to me that he was now engaged in writing a book upon the crania of America, which would be published during the coming year. On parting from him he expressed a desire to be remembered to his professional brethren in America. After leaving Professor Virchow I went to his demonstration room, where every day are brought the pathological specimens procured from the bodies of the patients who had died in the hospital during the previous twenty-four hours. These specimens are procured for examination and study by the medical students of the university, and were brought in on fifteen wooden dishes or trays, about sixteen or eighteen inches in diameter; each one of the dishes contained from one to three specimens. When we remember that all these were the results of the post-mortems made in the hospital in a single day, we can form some idea of the wealth of clinical material available for study by the medical students of this great institution. In front of the tables in this room is a miniature railway, by which the microscopes can be propelled along the rows of students, so that they can be examined by each one of them without interrupting the lecture or demonstration. I then paid a visit to the ward for contagious diseases, and to the surgical wards of Charité Hospital. The wards were clean and fairly ventilated, but I confess I was not as favorably impressed with them as I expected to be; there was a lack of that exquisite neatness that I have seen in some other hospitals, and some of the wards were much overcrowded. I went to the operating room of the hospital, and witnessed an operation for the removal of a tumor from the right side of the brain of a patient, an in-

mate of the hospital. The operation was performed by Professor Bartleben assisted by Professor Joli. It is scarcely necessary to say that the operation was performed in the masterly manner that might be expected from surgeons of such eminence. The operating room in which the above operation was performed, somewhat disappointed me. It was small in commodious and would not have accommodated more than sixty or seventy students. The operation was performed aseptically and under the influence of chloroform anæsthesia. Sulphuric ether used as an anæsthetic seems to be seldom employed on the continent of Europe at the present time—at least such was my experience during the summer of 1892. One very grave fault in the operation was the allowing of the students and assistants to touch the patient and the surgical instruments used during the operation. This to my mind vitiates entirely the possibility of performing an aseptic operation under such circumstances. The very essence of an aseptic operation presupposes an aseptic patient, operated upon by an aseptic operator with aseptic surroundings. No person or thing should be allowed to touch the patient until after the wound is dressed and thoroughly closed from the air and all risk from contagion. (During my stay in England I saw the very same error committed in three of the larger hospitals in the city of London.) No carbolic spray was used during this operation and in fact during the whole summer I was in Europe I never saw it once used. The many layers of protective gauze, mackintosh, etc., are now replaced by a simple layer of iodoform gauze, with an abundant layer of aseptic cotton, firmly retained by means of bandages. Another remarkable change both among the surgeons of Europe and in this country is the growing disbelief in the efficacy of the ordinary antiseptic solutions that are used as germicides during surgical operations. Solution of carbolic acid has been shown to be a very weak germicide, and the same may be said of solutions of boric acid and of the other solutions commonly used for this purpose. Mercuric chloride has until the present time been our sheet anchor as a germicide. Yet recent investigations in our own country, at the University of Michigan (and published in the *Medical News* of October 1 and 8, 1892) and at the Johns Hopkins University (published in the *Johns Hopkins Hospital Bulletin* of April, 1891, p. 50,) have shown that solutions of mercuric chloride, when used as a germicide, are often inert, and still oftener actually injurious when applied to the tissues during surgical operations. Observation teaches us that the consensus of opinion of the great masters of surgery is fast settling upon the conviction that there are practically only two methods of keeping surgical and all other wounds aseptic. One of these is to keep wounds made during surgical operations as dry as possible (in this way diminishing the growth of bacteria, by eliminating as far as possible the moisture which is essential to their existence). The other method is to use only recently boiled water in contact with them. Every instrument and surgical appliance used must be sterilized immediately before using, either by boiling in water containing 1 per cent. of carbonate of soda, or by being exposed to a dry heat above the temperature of boiling water for at least one-half hour. To this, of course, must be added absolute cleanliness of the operator, the assistants, nurses and of all the appliances used in surgi-

cal operations—the operating room and all the surroundings included. Perhaps I ought not to close this article without some mention of the famous pathological and biological laboratories of Professor Koch which are also located in the grounds adjoining Charité Hospital. These comprise three very unpretentious frame buildings, which contain the bacteriological apparatus microscopes etc., required in the investigations which professor Koch has conducted and still carries on, in his experiments on the preparation of tuberculin and analogous products.

I did not try to see Professor Koch, as I was informed he was so engrossed in his studies that he was very difficult of access. The week before I reached Berlin the highest official in rank of the medical department of British India had come to visit him, bringing with him the highest credentials, and had failed in securing an interview with him. I presume he considers it absolutely impossible for him to see the multitudes of callers who visit him from all parts of the world, and prefers to keep his time sacred from intrusion, so that he can pursue his investigations undisturbed.

In an article of my own, published in the *Medical News* of December 17, 1892, I have given the details of my visit to the Paris hospitals in August, 1892, and at the risk of offending some of my friends I am compelled to say that neither in the hospitals of London or Berlin did I see aseptic surgery carried out with such perfection of detail and magnificence of results as I saw displayed in the hospitals of Paris.

Finally, I would say to American students, that it is entirely unnecessary for those who desire to study the principles of aseptic surgery to go to Europe at all. At the German Hospital, the Roosevelt Hospital, the Polyclinic and others in the City of New York, and at the principal hospitals of Philadelphia, Chicago, Baltimore, Washington, etc., aseptic surgery is taught and practiced as perfectly as it can be found anywhere in the world. If American students desire the culture that only travel can give, by all means let them go to Europe; if they desire boundless wealth of material for clinical study, let them go to London, Vienna or Berlin; but if they desire, besides these advantages, to see fineness of technique in carrying out the principles of aseptic surgery, my advice to them would be to go to Paris and study there. I am very certain they will never regret their choice.

DIURETIN.

Read before the Pathological Section of the Chicago Academy of Sciences, Feb. 9, 1893.

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The experiments of Schroeder reported in 1889, and confirmed by clinical observations made at Schroeder's suggestion, the same year by Gram, of Copenhagen, established the value of the alkaloid theobromine, a product of the seeds of *Theobroma cacao*, as a diuretic of great power, acting by direct stimulation of the renal epithelium and lacking in the unpleasant effects upon the nervous system, tinnitus, restlessness, insomnia and delirium, attributed to its homologue caffeine.

Gram, after trial of many compounds, overcame

the disadvantage of the insolubility of the alkaloid by forming, by combination with salicylate of sodium, a double salt, sodium-theobromine-salicylate, which should contain at least 46.5 per cent. of the theobromine (Knoll's is said to contain 48 per cent.) and to which the name diuretin has been given. The therapeutic as well as commercial value depends upon its richness in theobromine. The compound occurs in the form of a white powder, soluble in less than its own weight of warm water, the solution remaining perfect on cooling. Pure diuretin should burn away without residue and should dissolve readily in soda solution. The daily amount administered—sixty to one hundred and twenty grains—is best given in divided doses of fifteen or twenty grains in solution, pill or capsule. Exposure to the air permits of the absorption of carbonic dioxide, forming an insoluble compound, so that the drug should not be given in powder. With acids or syrups containing the fruit acids the theobromine is precipitated as a white powder. For solutions, therefore, water is the best vehicle, being flavored if thought advisable, to conceal the slightly sickish-bitter taste, with peppermint, wintergreen, or some other aromatic. Usually very little, if any, objection is made by the patient, because of its taste or any unpleasant effects.

Since Gram's paper in January, 1890, numerous observers have reported their experiences with diuretin. Hoffman, Koritschoner, and Kouindji-Pomerantz, published articles the same year, confirming Gram's and Schroder's position as to the remarkable diuretic effect of diuretin and its value in removing dropsical fluids. In Koritschoner's series of thirty-eight cases from the Vienna Hospital, excellent results were obtained in all, save five who came to the hospital practically *in extremis*. The cases successfully treated included dropsies from cardiac and renal diseases, from cirrhosis and cancer of the liver and from tubercular peritonitis. The only unpleasant effects noted were, occasionally vomiting and diarrhoea. Koritschoner, after a dosage of one hundred and fifty grains a day found palpitation and extremely anxious expression of countenance to follow. He produced this result both in a patient and in himself by this dose, which may therefore be looked upon as a maximum daily amount. The removal of the dropsical fluid in some cases was so rapid as to cause alarming collapse. Koritschoner, therefore, advises that the first doses should be small and gradually increased in size until the maximum dose is given, or the desired effect produced. In twenty-three of the thirty-eight cases the effect was most excellent and it could only be said to be a failure in the five before mentioned cases, who entered the hospital beyond all hope of aid. In dropsies due to cardiac disease the result was most brilliant. Not only was no irritating effect produced on the renal epithelium, but in two cases of acute scarlatinal nephritis it caused prompt response in an increased activity of the kidney, and during its administration blood and casts disappeared from the urine.

Hoffmann made careful observations in Erb's clinic at Heidelberg, on seventeen cases of dropsy in which diuretin was given, and found the effect in dropsy of cardiac origin most remarkably satisfactory. In nephritis his results were not uniformly good, the best being obtained in the acute form. In cirrhosis of the liver the result was negative. Hoff-