MARYLAND
MEDICAL JOURNAL
A WEEKLY JOURNAL OF
MEDICINE AND SURGERY
AF SCHULZ BALTO

VOLUME XXXVI. NO. 13
WHOLE NO. 824

BALTIMORE, JANUARY 9, 1897.

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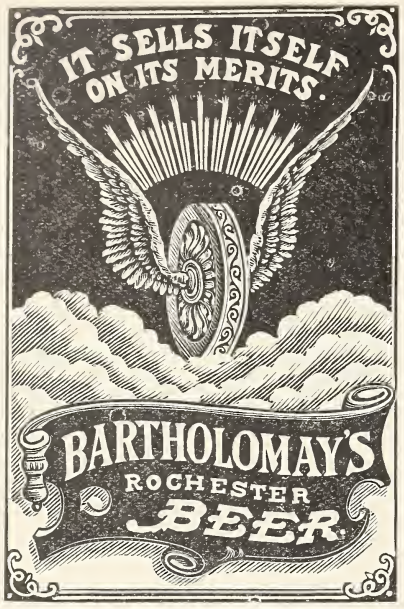

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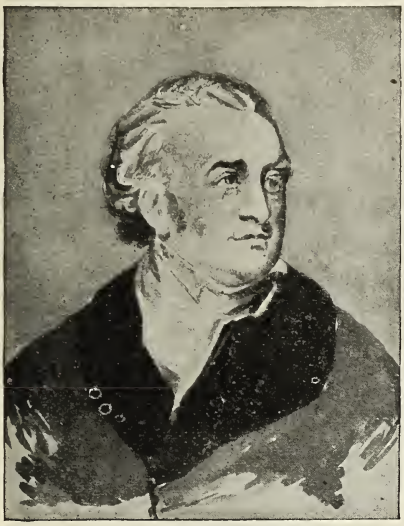

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DEERING J. ROBERTS, M. D.,

In Southern Practitioner, Sept., 1896.

NOTE ON INFANTILE SCURVY.

BY

JOSEPH LEIDY, JR., M. D., PHILADELPHIA,

ONE OF THE PHYSICIANS TO THE PENSYLVANIA HOSPITAL AND INSTITUTION FOR FEEBLE-MINDED CHILDREN, ELWYN.

CASE II. The following notes are of a case in private practice and one which was under constant observation :

> R. D., age eleven months, of healthy parentage, one of three children, came with the history of having Rheumatism. The symptoms were entirely referable to the lower extremities, which were painful to the touch, though no evidence of swelling could be detected. When the soles of the feet were pricked the child would make partially successful efforts to draw the limb up ; pressure along the femur or over the knee-joints occasioned considerable pain. Petechial spots were present over both tibia and on the *lower* gums. There was slight anemia. Heart and lungs negative; bowels loose. As the patient was upon sterilized milk, the diet was continued, and in addition, beef-juice and orange-juice ; but little progress was made. At the end of ten days the gums were decidedly spongy, the limbs not at all improved (owing to the tendency to diarrhea), and considerable gastro-intestinal irritation. Pasteurized milk with Fairchild's Peptogenic Powder was substituted for the sterilized milk, in addition to beef-juice and orange-juice, which was continued. Without it were possible to witness the rapid progress toward recovery which this case made, I fear any account would be incredible. Suffice to say, that in four weeks, with the exception of the anemia, the symptoms had entirely disappeared. The patient had regained entire control of the lower extremities, is now increasing in weight, and the anemia rapidly disappearing.

Rheumatism was again the error in diagnosis in this case, and again a point of considerale interest, as well as the rapid amelioration under change of diet rich in fresh food. This child had been brought up on sterilized milk. Of the nine cases which I have had an opportunity of studying personally, six were fed upon one of the proprietary infant foods, three upon sterilized milk—all bottle fed.

Excerpt from *Boston Medical and Surgical Journal* of October 29, 1896.

MARYLAND
MEDICAL JOURNAL

A Weekly Journal of Medicine and Surgery.

VOL. XXXVI.—No. 13. BALTIMORE, JANUARY 9, 1897. WHOLE No. 824

Original Articles.

AN EPIDEMIC OF PURULENT INFLAMMATION OF THE MILK DUCTS AFFECTING SEVENTY COWS.

By Wm. Royal Stokes, M. D.,
Bacteriologist to the Health Department and Lecturer on Bacteriology to the Baltimore Medical College, Baltimore,
AND
A. W. Clement,
State Veterinarian.

FROM THE BACTERIOLOGICAL LABORATORY OF THE HEALTH DEPARTMENT OF BALTIMORE.

THE first clinical observation of the probable transmission of disease through milk dates back as far as 1764, when Sagar described a number of throat affections, and apthous ulcers of the mouth, which he attributed to drinking the milk from a certain cow.

This communication seems to have attracted but little attention at the time, but its correctness has of late been confirmed by the objective demonstration of various pathogenic bacteria in the milk of cows, especially in that of animals suffering from an inflammatory condition of the udder and teats, called garget. Nivens has described an epidemic of diarrhea affecting 160 persons, in which the source of infection was traced to the milk from a cow affected with the above disease. The cultures from this milk showed the presence of the bacillus coli communis, and the streptococcus pyogenes.

Kruger, in 1890, was one of the first to find the pyogenic cocci in milk of diseased cows. He observed many pus cells in a case of suspected bovine tuberculosis, but failed to demonstrate the presence of the bacillus tuberculosis. He observed, however, many groups of cocci, which proved to be the staphylococcus pyogenes aureus, capable of producing subcutaneous abscesses in rabbits. Guillebeau also examined the milk of 76 cows with inflammation of the udders, and found in all of the cases varieties of the pyogenic cocci, which were often virulent when inoculated into animals. Further similar cases are reported by Karlinski, Escherich, Longard and Adamitz. (References from Report of the Health Officer of the District of Columbia for 1895.)

Clinical Observation. — I was called upon professionally in August to attend a herd of cattle which, as the owners said, were "milking pus." I found a herd of about 70 cows all affected to a greater or less extent. They were all nearly dry and what milk could be obtained was of a thick, yellowish nature. The cows stood in a double row of stanchions. The history obtained, after careful inquiry, was that the disease first appeared in one cow; that the owner's attention was called to the con-

dition of the milk by the retailers who bought it. The infection spread to the rest of the herd with great rapidity, so that in the course of two or three weeks the whole herd had become affected.

These cattle were at the time on pasture, fed twice a day on mill feed and according to the foreman's statement milked regularly. Further inquiry brought forth the information that a strange man had hired out on the farm, who was an experienced milker, but who sought professional advice from the physician attending the family for a sore upon his finger, which he said he got from milking cows on a large dairy farm in York, Pa. This man left the place in about a week, and a few days after his departure the disease appeared in the first cow, soon followed by its appearance in the rest of the herd. Cleanliness and irrigation with warm water gradually caused the animals to become dry, in which condition they have remained up to the present time.

A complete autopsy was made upon one of the cows, but nothing abnormal was made out, with the exception of a purulent inflammation of the somewhat dilated milk ducts. Cultures from the blood of the heart and the internal viscera remained sterile.

Histological Examination. — Sections through the diseased portion of the mammary gland show that the larger milk ducts are dilated, and are either empty, or plugged up by massses of "polynuclear" leucocytes.

This condition, however, is much more marked in the secreting acini of the gland. These are often markedly dilated, and for the most part contain large or small accumulations of pus cells; this process ends here, and there is no sign of inflammation in the surrounding connective tissue, the suppuration having limited itself to the milk ducts and acini of the gland. Although we were only able to secure one autopsy, yet the absence of any local swelling in the mammary glands of the other cows would seem to show that the condition was a similar one in the rest of the herd. The lymphatic glands surrounding the mamma were found to be normal.

Bacteriological Examination. — The cultures were obtained from two different cows. The methods of procedure were similar in both cases, and the results identical.

The teat was carefully washed with soap and water, and the creamy fluid was then squirted from an affected teat into a sterile tube, without allowing the teat to come into contact with the opening of the test tube. Cultures were made soon afterwards at the laboratory and were also made on the spot from the interior of the diseased udder.

Cover slips showed that this fluid consisted entirely of pus containing a moderate number of short chains of streptococci. Plate cultures in 24 hours showed a moderate number of fine, pin-point, gray colonies, which consisted of short chains of cocci, staining by Gram's method, and the ordinary aniline dyes.

The organisms grew invisibly on potato, coagulated and acidulated milk in 24 hours, formed small gray colonies on "slant," agar, turned litmus agar red, and grew in fairly long chains in bouillon. Gelatine was not liquefied.

Inoculations. — White mice were inoculated subcutaneously with the pus from the udders, and with pure agar cultures. Guinea pigs were also inoculated subcutaneously with the pus, and were given one cubic centimeter of a pure fluid culture of the organism. All of the animals survived these inoculations for several weeks. The capriciousness of the streptococcus as regards virulence, however, is well-known, and this fact does not disprove its species.

From our experiments, therefore, we are of the opinion that we have demonstrated the presence of the streptococcus pyogenes possessing a low grade of virulence.

The study of this epidemic presents several points of interest. Garget has been caused experimentally by wounding the udders, and allowing the wound to come into contact with various non-sterile materials.

Assuming that one or several of the herd may have become affected in a sim-

ilar fashion, or from contact with an infected finger, the gradual transference of the disease from cow to cow can be plainly traced to the hands of the milker, from the history of the epidemic.

The similarity of the process to that of gonorrheal inflammation of the mucous membrane in man is also a point of considerable interest, although, of course, the causes differ.

From our observations gained from the routine microscopical and bacteriological examination of milk, we believe that the dangers of infection can be materially lessened by the observance of a few simple precautions, and by the use of the microscope. Clean hands, milking utensils, udders and stables are of course important.

We have also found many pus cells in the centrifugalized sediment obtained from the mixed specimens from several large herds and in one instance we were able to trace the source of the pus to one cow having a local abscess of the udder. After the isolation of this animal we were unable to demonstrate the presence of any more pus in the milk from the rest of the herd.

Although we are aware that it is impossible to obtain a perfectly sterile milk directly from the udder of a healthy cow, yet we believe that the presence of many colonies of the staphylococcus pyogenes aureus or streptococcus pyogenes when obtained from a "slant" culture of a single platinum loop made from the milk drawn according to the method mentioned above, renders this fluid unfit for use, especially for infants.

Cultures thus made from the last portion of the milk drawn from a healthy cow are usually either sterile or contain only a few colonies of a white coccus, or other bacteria. On the other hand, the milk of animals suffering from garget shows many colonies of the pus cocci and often contains many pus cells.

In conclusion, we wish to express thanks to Dr. James F. McShane, Health Commissioner of Baltimore, for the interest which he has displayed in this work.

THE RÖNTGEN RAYS, SHOWING THE PRACTICAL UTILITY IN LOCATING HIDDEN BULLETS.

By Arthur Herring, M. D.,
Prosector in Anatomy and Demonstrator in Eye and Ear, Baltimore Medical College.

The X rays, as discovered by Professor Wilhelm Conrad Röntgen of Würzburg, Germany, stands out as one of the greatest and most wonderful achievements of modern science.

The photographing of the invisible is of special value to the surgeon as an aid in both diagnosis and treatment of wounds.

In the report of the following case not only the utility but the necessity of the Röntgen rays in confirming the diagnosis will be self-evident.

On November 16, 1896, Mr. P. E. came to my office with the history of having been shot in the back with a rifle. After removing his clothing, which was slightly stained with blood, over the seat of the injury, I saw the wound of entrance.

The wound was about 1 centimeter in diameter and had ragged edges. It was situated over the right scapula, about 5 centimeters below the spine and 1½ centimeters from the axillary border. After washing the wound with a bichloride solution, 1-1000, I introduced a sterilized probe and could follow the course of the bullet for about 1 centimeter only. The direction was inward and downward toward the vertebral column.

As the probe revealed nothing more than the probable course of the bullet, I withdrew it and carefully examined the posterior aspect of the thorax. No tender point (excepting around the immediate

vicinity of the wound) or elevation of any kind could be found, but as there was only the one opening, I concluded that the bullet was hidden away either in the muscles of the thorax, or possibly within the thoracic cavity itself. There was but one way to verify my diagnosis; the cathode rays must be brought into requisition. I accordingly took my patient to the Chas. Willms Surgical House, where Mr. B. A. Nelson very kindly and efficiently operated the apparatus.

In order to obtain an even temperature of the Crookes tube and to increase the penetrating power of the rays it was necessary to bring the vacuum tube up to the required temperature gradually.

This required about half an hour. When the tube had reached the desired point there were about 170 volts coming from the Ruhmkorff coil. The patient was then subjected to the X rays.

Standing with the ventral surface of his thorax to the Crookes tube and with the fluoroscope on the dorsal surface, we proceeded to examine him.

When first looking into the fluoroscope (which is covered on its inner surface with the tungstate of calcium, by means of which we obtain an instantaneous picture), you see nothing at all; everything is perfectly black before the eyes, but in a few minutes your eyes become accustomed to the change and gradually as though a mist was passing from before the eyes, you notice the outlines of the ribs, the vertebral column and the margins of the scapula appearing and, finally, the picture becomes as clear and distinct as though you were looking at the bony framework of the thorax denuded of its muscular coverings. As we looked the picture became clearer and the intercostal spaces better defined. Noticing carefully, we located a dark object on the superior margin of the fifth rib, about 2 centimeters from the vertebral column.

On studying this carefully, we came to the conclusion that without a doubt this was the bullet, lodged in the fourth interspace and resting on the upper border of the fifth rib.

Upon using considerable pressure over the point where the bullet was lodged the patient evinced some pain. On examining the surface of the body again over and around the region of the bullet no elevation or presence of foreign body could be detected, showing conclusively that had it not been for the cathode rays the bullet in all probability would never have been located, as it was between and not external to the ribs.

Professor A. C. Pole, M. D., and Dr. Wanstall were present at the examination and verified the diagnosis. As the bullet is giving him no trouble now and is not likely ever to inconvenience him in any way, its removal was not advised. Although if at any time in the future it is deemed necessary to remove the bullet, knowing its exact locality, it would be a very simple matter to cut down on the foreign body and remove it.

When the patient was last seen the wound was healing very kindly and he was suffering no inconvenience at all from the accident. Thus we see a practical illustration of the usefulness of the X rays in confirming our diagnosis and to a great extent influencing the treatment in gunshot wounds.

For had this bullet not been found the patient would always be more or less in dread of danger, or if the patient was inclined to a neurasthenic tendency he would very likely be ascribing a thousand and one different ailments to the inoffensive bullet. Another interesting specimen was presented by Prof. A. C. Pole, M. D., showing the power of the X rays to penetrate bone. The specimen was a piece of bone 3 centimeters in thickness, and about 5 centimeters in length, in which was imbedded a bullet.

When subjected to the Röntgen rays the outline of the ball was clearly defined, the shadow being much darker than that cast by the bone itself, showing that while bone is to a limited degree impenetrable to the rays, yet the presence of a foreign body within the bone can be clearly defined by the darker shadow it casts.

As the X ray apparatus is very easily manipulated and accessible to almost all practitioners, no surgeon should

any longer be in doubt as to the exact location of any foreign substance impenetrable to the rays in the body, or whether the ends of a fractured bone are in exact coaptation or not.

The numerous applications to which the Röntgen rays may be put are not yet fully known, but may we not hope with the perfection of methods that all the hitherto hidden recesses of the body may yet yield their tribute to the new light and open to view many, if not all, of the abnormal processes of the living body, as effectually as does the post-mortem knife in the hands of the most skillful pathologist ?

POST-DIPHTHERITIC PARALYSIS.

A CLINICAL LECTURE DELIVERED AT THE JOHNS HOPKINS HOSPITAL, OCTOBER 15, 1896.

By Wm. Sydney Thayer, M. D.,
Associate Professor in Medicine in the Johns Hopkins University.

THE two patients which I shall bring before you today are a mother and her child who were admited to the hospital together on the 15th of last month suffering with diphtheria.

The boy is two years of age ; he has always been a healthy child, having had as yet none of the ordinary diseases of childhood. His mother states that four days previous to his admission he had several convulsions, after which he seemed ill ; he was not inclined to eat and complained of a sore throat. There was a profuse nasal discharge and a swelling at the angles of his jaws. The day before his entrance to the hospital he was brought to the out-patient department and a diagnosis of diphtheria having been made he was givin 500 antitoxine units (Mulford's antitoxine). This was repeated upon the following day just before admission to the hospital.

At the time of entrance the child showed a well-marked enlargement of the tonsils, while both tonsils and a part of the pharynx were covered with a thick greyish-yellow membrane. The membrane extended also on to the velum and posterior surface of the uvula. On the tip of the tongue there was an area the size of a pea covered with a firmly adherent greyish membrane. There was a profuse foul nasal discharge ; the temperature on admission was 102° ; the pulse 126. The child was hoarse ; there was well marked inspiratory dyspnea and it was feared that tracheotomy might have to be performed. It was not known that he had had antitoxine outside and he was given a fresh dose of Behring's number 3 (1500 antitine units). The boy did perfectly well ; the throat cleared up rapidly; the temperature was quite normal by the 19th of October. On the 21st the patient began to suffer from an interesting sequel which has been observed in a considerable number of cases after the antitoxine treatment. The temperature rose and the child became cross and irritable, while at the same time there developed a well-marked general urticarial eruption. This lasted for a week and was associated with considerable fever ; but at the end of the week the urticaria disappeared and the temperature cleared up.

At about the same time that the urticaria appeared, that is within a week after entrance, the mother noticed that the child had difficulty in swallowing ; when drinking water or milk he would choke and cough, while often a part of the fluid which he was drinking would flow out through his nose. She also noticed that the voice, which had previously been quite clear, began to have a peculiar nasal quality, while articulation of certain letters became difficult and the child's speech was extremely hard to understand. A little later during convalescence it was noticed that the child manifested no desire to stand; when placed upon his feet, immediately collapsed upon the floor. Of late he has begun to walk, but, as you will notice shortly, in a peculiar manner.

As you listen now to the child's voice you will note that it it is impossible to understand without very careful attention what he is trying to say. All letters requiring the closure of the posterior nares cannot be pronounced by him. I ask him to say P or B; as you notice they sound really more like M. The voice has a very characteristic nasal twang; it is much like the voice in a case of congenital cleft palate. You have observed as he drank the water which was handed to him a minute ago how frequently he choked and coughed. This morning the milk could be observed coming through his nose drop by drop as he swallowed. The child is unable to walk alone, and when I take his hand you will notice how unsteady and ataxic is his gait.

If you examine the child's throat you will observse that the velum and uvula hang in a motionless, flabby manner. When he attempts to speak there is scarcely any motion nor is there any active reflex when the uvula is tickled. The knee-jerks are absent. He is too young to allow us to study carefully the loss of power in his legs, but it is easy to appreciate that the legs are weak and flabby. As far as can be made out there is no reaction of degeneration.

The mother is 24 years old and entered at the same time with the child. Her illness began 24 hours before entrance. At this time she began to complain of bachache, headache and sore throat. The temperature on entrance was 104.8°, the pulse 104. There was a well-marked grey diphtheritic membrane on the upper part of either tonsil, extending upwards a little way on to the velum. On the day of entrance she was given a bottle of No. 1 Behring's antitoxine, that is 500 units; on the following morning she was given 1500 units. During the first 24 hours the membrane extended to the uvula; then gradually disappeared. The temperature was normal in three days.

About a week after entry the mother began also to notice that on attempting to swallow fluids she choked, while there was regurgitation at times through the nose. This condition has existed during the past two or three weeks but has improved during the last week until now there is but little trouble in the swallowing. If you examine the mother's throat you will see that the velum on the left side hangs much lower and more flabbily than that upon the right; while the uvula is drawn distinctly toward the right. On attempting to speak or on tickling the palate you see how marked a reflex there is upon the right side, how the uvula is drawn in that direction. In other words, the mother has an unilateral paralysis of the soft palate. For the last two or three weeks the mother has had the same trouble with regurgitation but it was due to an unilateral lesion. The knee-jerks are almost absent.

Thus in these two cases we are dealing with conditions generally included under the term *post-diphtheritic paralysis*. In the first case there is complete paralysis of the muscles associated with the velum and uvula as well as a partial loss of power in the lower extremities with well-marked ataxic symptoms. In the second case we have to do with an unilateral paralysis of the velum and uvula.

You are probably familiar with the frequency of post-diphtheritic paralyses. They are, as you know, the commonest and at times the most serious sequels of diphtheria. Statistics, as will be mentioned later, show that they occur probably in over 10 per cent. of all cases. As a rule, they appear within the first three weeks.

By far the commonest form is that which we have here in the mother and in the child, namely, paralysis of the soft palate, resulting in the regurgitation of fluids and in the peculiar characteristic nasal voice. An unilateral paralysis such as is observed in the mother is not an infrequent occurrence. At times there may occur further paralyses of the pharyngeal muscles resulting in serious dysphagia.

But there are many other forms of paralysis which follow this disease; thus, various ocular paralyses are perhaps next in order of frequency to those of the palate. Disturbance of accommo-

dation from paralysis of the tensor chorioidea is particularly frequent. Next perhaps in frequency comes the ataxia and loss of power in the lower extremities.

In young children we see also at times paralysis of the muscles of the back of the neck, so that the head hangs flaccidly forward ; paralysis of the abdominal muscles sometimes occurs.

At times there may be total paralysis of the extremities or of single cerebral nerves, oculo-motor, facial, abducens.

Henoch has twice seen paralytic aphonia, while paralyses of the respiratory muscles may occur.

Disturbances of sensibility are most unusual. The sphincters are affected only in the later stages of fatal cases. In almost every case, however, where symptoms of post-diphtheritic paralysis are manifest there is a loss of the knee-jerk; this is true in many instances where no other signs of post-diphtheritic nervous disturbance are present. The great majority, if not all, of these disturbances, are now generally recognized to be due to a toxic neuritis of the peripheral neurone.

Other changes, however, may follow in the nervous system after diphtheria, hemorrhages or degenerative changes in the brain or spinal cord.

Schoenfeld has noted two cases of multiple sclerosis following diphtheria.

Again, a number of instances of hemiplegia have been reported. Thomas of Boston has collected 30. These have doubtless been due to different causes; embolism, thrombosis or hemorrhage. They are probably similar in nature to those which are observed after many other infectious diseases, in particular in typhoid fever.

Many observers have described capillary hemorrhages in the brain and in the cord as well as in the heart muscle and in other organs.

Among the post-diphthetric paralyses are often included those instances of sudden cardiac failure which may, as is well-known, occur late as an apparently normal convalesence. It is a question whether these cases of cardiac paralysis depends chiefly upon changes in the heart nerves, or upon the affection of the heart muscle itself.

The frequency with which post-diphtheritic paralyses occur is difficult to determine. Different epidemics show the greatest variations in the frequency of post-diphtheritic nervous manifestations. Thus, Unterholzer in Vienna asserts that after some epidemics he has seen the percentage of post-diphtheritic paralyses as low as 4 per cent. and in others as high as 17 per cent.

Hoppe-Seyler in Kiel found post-diphtheritic paralyses in 27 per cent. of his cases, while Johannes, in Norway, estimated the average occurrence of post-diphtheritic paralyses at 12.5 per cent., although in severe epidemics he has seen the percentage as high as 50. Duckworth estimates the percentage at from 10 to 20 per cent. Lennox Browne out of 1000 cases found post-diphtheritic paralyses in 14 per cent., while Sanné out of 2448 cases found 11 per cent. of post-diphtheritic paralyses. Combining Brown's and Sanné's statistics we find that out of 3448 cases, post-diphtheritic paralyses occurred in 11.8 per cent.

What influence does treatment by antitoxine have upon the frequency of these manifestations?

In the recent discussions which have taken place upon the value of the antitoxine treatment, numerous statements are to be found with regard to this point. *A priori*, one might expect to find a reduction in the number of cases of post-diphtheritic paralyses in those treated early by antitoxine. For certainly the shorter the time during which the circulating poison is allowed to act upon the tissues of the body, the less severe might we expect the result to be.

As a matter of fact a number of observers, while not offering any definite statistics, state their impression that the frequency of post-diphtheritic paralyses is somewhat *greater* after use of antitoxine. Thus, Baginsky in his large clinic has seen, he believes, more post-diphtheritic paralyses since he began the use of the antitoxine, while he quotes Hirschberg as saying that he has seen more ocular paralysis than ever before.

Von Noorden noted 21 instances of post-diphtheritic paralyses out of 81 cases, an enormous percentage, while Kohts and Steegenberg report that they have met with no great change in the frequency of this manifestation. On the other hand, many of the other statistics show a surprisingly small number of cases of post-diphtheritic palsy.

The most valuable report which is available is probably that of the American Pediatric Society, where out of 3384 carefully observed cases, there occurred 328 instances of post-diphtheritic paralysis, or 9.7 per cent. These figures, as will be seen, are a little below the estimates of the frequency of these manifestations based upon the combined statistics of Brown and Sanné of cases untreated by antitoxine. If we add to these cases the statistics of Seitz, Hubler, v. Noorden, Sonnenberg, Steegenberg, Gerloczy, Havas and Weber, we have in 3982 cases, 382 instances of post-diphtheritic paralyses, or 9.5 per cent. The evidence, then, based upon a very considerable number of cases is rather in favor of a slight diminution in the frequency of post-diphtheritic paralyses in cases where the antitoxine has been used. The significance of these figures becomes rather more striking when we remember the fact that from 5 to 20 per cent. more patients survive under this treatment. It is easy to conceive that many of the instances of diphtheria which result fatally might, if the life were saved, develop nervous disturbances afterwards. The more intense, indeed, the poison, the more frequently might we reasonably expect to meet with grave results. Granting that in any one given case the administration of antitoxine, by cutting short the period during which the tissues are exposed to a circulating toxic substance may diminish the likelihood of peripheral neuritis, yet the addition of 10 to 20 cases in every hundred to the number which would have survived without the administration of antitoxine —cases which during a certain length of time have been exposed to a most intense poisoning—might well result in an equal or even greater number of post-diphtheritic paralyses than were observed in the cases treated according to the old method.

If in spite of this fact the number of cases of post-diphtheritic paralysis in every hundred is no greater, or indeed really less than previously, as seems to be the case, then we may well assume that the early administration of antitoxine has exerted a distinctly favorable influence in protecting the nervous system.

A striking feature, however, of the antitoxine report of the American Pediatric Society is the large number of late sudden deaths from cardiac paralysis; thus, 32, or nearly 10 per cent., of the cases of post-diphtheritic paralyses were instances of sudden death. Only three of these occurred, however, in instances where the inoculations were made in the first two days. Two-thirds of the cases occurred in patients where the injection had been made after the third day. As is stated in the report, many of these instances would probably have proven fatal earlier in their course had the serum treatment been omitted. The antitoxine cannot be reasonably expected to overcome the damage done by toxines before it was injected.

The prognosis in these cases of post-diphtheritic paralysis is usually good if we leave out those distressing instances of sudden death due to cardiac paralyses. It may well be that more of these instances than we suspect are really dependent rather upon changes in the heart muscle itself. The simple paralyses of the soft palate are usually relatively innocuous, and convalescence is to be looked forward to without treatment. In some instances, however, particularly if there be associated paralysis of the pharyngeal mucles, there is a certain danger of pneumonia from the inhalation of foreign particles, while strangulation from the lodging of large particles in the gullet or the larynx has occurred. The paralyses of the muscles of the trunk and extremities are often of annoyingly long duration, but almost invariably end in recovery.

With regard to treatment different observers give different advice. Thus, some are urgent in their recommenda-

tion of electrical treatment, while others, and among these Henoch, are inclined to rely more upon general tonic treatment with thorough massage and passive motion.

November 1, 1896.—You will, I think, all recognize the child I bring before you today as the same which you saw two weeks ago. At that time, if you remember, he was suffering from a post-diphtheritic paralysis of the velum and uvula as well as from a paresis of both legs with well-marked ataxia. The mother brought the child back to the hospital two days ago, complaining that it had grown much weaker, that it had not only continued to regurgitate fluids through the nose but had had great difficulty in swallowing solids, any solid particles sticking apparently in the gullet and causing attacks of strangulation which greatly alarmed her. She also says the child has become "cross-eyed."

You will observe as you look at the boy now, the manner in which his head falls first to one side, then to the other; now forwards, and, if he suddenly lifts his head up, it often topples over backwards. There is then apparently a great weakness of the muscles of the neck as a whole. You will notice also that the child has a well-marked convergent strabismus. On as careful examination as is possible with so small a child this appears to be due to a bilateral paresis of the external rectus; it is somewhat more marked on the right than on the left. You still notice the markedly nasal voice and as the boy walks you will see that he is still very unsteady and ataxic. There is, however, one feature which was not evident two weeks ago; the child stands with an extremely marked lordosis; the abdomen is prominent, the back is arched forward in the lumbar region, while the shoulders are thrown back in order to keep the equilibrium. The attitude of the child is just that of a patient with a progressive hyopathy. When the child is placed upon the floor he is, as you see, quite unable to get up again. You perhaps observed a few minutes ago as he entered the room how when he walked across to the blackboard and raised up his hands to seize the shelf upon which the chalk lies, his back suddenly gave way, leaving him hanging by his hands, his abdomen having as it were "caved in" against the wall.

This case, then, is an instance of rather remarkably generalized post-diphtheritic paralysis. The child has had, first, paralysis of the velum and the uvula; second, probably slight pharyngeal paralysis; third, double paralysis of the external recti; and fourth, a general weakness of the muscles of the trunk and of the legs with well-marked ataxia. The heart remains in apparently good condition.

The child is to reënter the hospital today, where it will be kept quiet, placed upon a full diet and cod liver oil and given regular daily massage with passive motions.

December 23.—The child is still in the hospital, but has improved in every way. He no longer regurgitates fluids and has no trouble in swallowing. The ataxia, though still present, is much diminished; the power of the muscles of the trunk and legs has greatly improved and the strabismus has nearly gone.

TEMPORARY PARALYSIS FOLLOWING GASTRIC DISTURBANCE.

Roux has had occasion to observe (*British Medical Journal*) a case of paralytic symptoms appearing suddenly in the course of an attack of gastric disturbance. The patient, who had been suffering from dyspeptic symptoms of a mild degree for about a week, suddenly suffered from general weakness, fever, and lumbar pain, which in the course of some hours resulted in complete paralysis of the fore limbs, diminution of the knee-jerk and of sensation of pain, the sphincters being unaffected. This condition lasted a week, disappearing as rapidly as it came on and without leaving any trace. The author, without committing himself to any diagnosis, draws attention to the analogy presented by this case with acute spinal paralysis.

The case, however, seems to differ in some respects from ordinary cases of this disease, more particularly in the fact of the pain sensation being altered.

Medical Progress.

Hematoma of the Dura Mater.—A very interesting but somewhat mysterious case is published by Dr. Munro in a recent number of the *Lancet*. The patient was a cooper about fifty years of age, who was admitted to the wards of the Victoria Infirmary in January, 1895. He had been in his ordinary health a few hours before when he suddenly fell down in general convulsions. The seizures followed each other very rapidly, but after a time it was noticed that the convulsion became almost restricted to the right side, although the left leg was still slightly involved. Consciousness was not regained, and on admission it was observed that the mouth drooped to the right. Each fit commenced with conjugate deviation of the eyes and head to the right side, and then tonic, followed by clonic, spasm affected both legs and the right arm. No cardiac lesion was detected and the urine was not examined. The temperature rose to 106.8° F. before death ensued.

The condition of the brain found at the necropsy is of much interest. No significant abnormality was found in any other organ. When the dura mater was removed it was found to be lined on the left side by an adventitious membrane about as thick as itself, firm and adherent, although it could be stripped off. It was reddish in color and was not adherent to the pia-arachnoid except in the region of the left olfactory bulb. There were no evidences of hemorrhage to the naked eye, and the membrane appeared to be of recent development. It clothed the inner surface of the dura mater, above, below, and laterally. It was, however, absent from the left side of the falx and from the superior surface of the tenorium. Microscopic sections showed it to be much less transparent than the dura mater. It consisted of several layers and its deeper half contained more pigment than the half next the dura mater. The pigment was reddish-yellow and was distributed in round or oval clumps of considerable size within cells. The basis of the membrane was a vascular and cellular fibrous tissue. The dura mater was not abnormally adherent to the bone on the left side. No other intracranial abnormality was discovered.

Dr. Munro, in discussing this case, directs especial attention to the occurrence of what was apparently a hematoma of the dura mater in a patient not an inmate of an asylum. It is undoubtedly rare, and that this false membrane was the result of repeated hemorrhages is probably indicated by the fact that it could be easily separated from the dura mater and by the presence of pigment almost certainly derived from the blood, in the membrane. Such a condition has been described in connection with general paralysis of the insane. It has also occurred in infantile scurvy, but we are not aware of any other condition with which it is associated unless we include a similar if not identical condition in syphilis. There was apparently no recent change in the condition which would account for the status epilepticus leading to the fatal issue.

* * *

"Mirror Speech."—Mirror writing, whether as a pathological symptom or when practiced for the purpose of rendering written communications illegible in the ordinary way, is a well-known abnormality, but it has been reserved for Dr. Doyen of Paris to discover the first case of "mirror speech." A little girl twelve years old, says the *Lancet*, had been trepanned successfully for a cerebral abscess the result of otitis, but for some time after the operation aphasia remained persistent. Then by degrees, as the patient's general health improved, she began to utter sounds which although distinctly articulate were nevertheless totally incomprehensible; such, for example, as "te-tan-ma; yen-do sier-mon, chant-mé; le-quil-tran-ser-lais-me-vous-lez-vou."

The young girl seemed to be quite unaware of her curious incoherency, and the inability of her friends and attendants to understand what she wanted consequently made her very angry. She evidently attributed their amazing lack of comprehension to stupidity and sought to stimulate their intelligence by repeating over and over again a number

of apparently unconnected syllables, similar to the foregoing, with an ever-increasing volubility. At last one of the bystanders suggested that what she was saying should be taken down in writing; and no sooner was his idea carried out than at once the key to the enigma became manifest. The child was simply speaking her sentences backwards, beginning at the last syllable to end with the first, and that without the slightest mistake even in a combination of a dozen or more words. The example given above will be found, when transposed, to resolve itsels into the following elementary sentences . Ma tante; Monsieur Doyen, mêchant ; voulez-vous me laisser tranquille."

This remarkable aberration of speech continued during five weeks, when the recalcitrant syllables began once more to fall into their proper places. Since then several months have passed without any signs of a relapse, and when last seen the little patient was in a flourishing state of health with perfect articulation.

* * *

THE TREATMENT OF THE SYPHILODERM.—In a clinical lecture delivered at the New York School of Clinical Medicine, Dr. William S. Gottheil said that a careful consideration and trial of the various methods of treating the syphilodermata has led him to the following conclusion :

1. In the primary stage, when only the chancre is present, no general treatment ; calomel locally.

2. As soon as the secondary period sets in, as shown by the general adenopathy, angina, cephalalgia and eruption, the internal treatment for mild cases should be one-quarter to three-quarters of a grain of the proto-iodide of mercury t. d., continued for three months, or until the symptoms disappear. In severer cases, with pustular eruptions, severe anginas, persistent headaches, etc., a course of six to ten intra-muscular injections of ten per cent. calomel-albolene suspension, five to ten mimims at intervals of five to fifteen days, should be employed.

3. After completion of the course and cessation of the symptoms, employ tonics, etc., without specific treatment, for three months.

4. Thereupon a second calomel course as above, plus a small dose (fifteen grains) of iodide of potassium in milk after meals. This to be given whether later secondary symptoms of the skin and mucosae appear or not.

5. Second intermission of treatment, lasting three to six months, according to the presence or absence of symptoms.

6. In the second year, if tertiary lesions marked by deeper and more localized ulceration are present, give the iodide of potassium in increasing doses (sixty to six hundred grains daily, as may be necessary). Combine with it occasional courses of calomel injections. If no lesions appear, give a mild course of both.

The best local treatment of the syphilodermata is with the mercurial plaster-mull.

* * *

THE ULTIMATE RESULTS IN EIGHTY-SIX CASES OF FIBROIDS OF THE UTERUS TREATED BY THE APOSTOLI METHOD. —Dr. G. Betton Massey reported eighty-six consecutive cases of uterine fibroids treated by the Apostoli method to the American Electro-Therapeutic Association at its annual meeting in Boston, September 28, 1896. After considerable correspondence and inquiry the ultimate results (or those existing from two to eight years after cessation of treatment) were ascertained in seventy-five cases, and were found to be as follows :

Anatomical and symptomatic cure : destroyed piecemeal by electrolysis through cervix, 1 ; extruded through cervix in whole or part, 4 ; disappeared under absorption, 12.

Symptomatic cure : with great reduction in size, 16 ; with slight reduction in size, 21 ; without change in size, 10.

Total cases resulting in practical success, 64; symptomatic improvement only, 4 ; failure to effect any change, 6 ; made worse, 1.

Total cases resulting in failure to relieve, 11.

The sixty-four successsful cases give a percentage of 85.33 per cent. of successes, and the eleven cases of slight

improvement and no improvement and the one made worse, give a percentage of 14.66 per cent. of failures.

The one case that was made worse was a cystic intra-uterine growth that was improperly treated by electricity before it was generally known that such cases should not be treated by the classical Apostoli method. Future statistics will naturally be clear of such errors of practice, hence it may be said that the practical ultimate results in a hundred cases properly treated by electricity will be at least eighty-five cases successfully and satisfactorily handled, and fifteen cases in which electricity will do no good nor yet any harm, leaving that number of tumors unchanged for other methods promising great relief.

Of the twelve tumors reported as having disappeared by absorption this fact was verified by the reader of the paper in but seven instances, the remainder being reported by the patients themselves.

* * *

Hot Rooms and Catching Cold.— We are so accustomed to the formula that American houses are always overheated, says the *Medical Record*, and it has become so much the fashion among medical men to attribute catarrhal troubles to this cause, that it is interesting to learn of an English writer who thinks it is better to be warm than cold in winter. Dr. William H. Pearse, writing in the *Scalpel* for September, says that he ventures to differ from the popular belief, that there is special danger in going from a hot room into the open air, holding, on the contrary, that the heat of the room or house is a great preservative from chill or "catching cold" on going out into the open air. In Russia, in Central Europe, Canada and the Northern United States, houses are made very warm with a dry heat in the winter, yet men, women and children go out into a temperature below zero. The stimulation and heightened condition of the circulation and nerves, and ultimate molecules of protoplasm, give a great power of resistance to the outer intense cold, preventing "chill" in the first exposure until exercise with its infinite motions, as it were, takes up and maintains the conditions of resistance. Dr. Pearse says that he has walked at midnight from a highly heated mansion across Boston Common, in his dress coat only, on a calm, starry night, the temperature about zero. He suffered no inconvenience, and felt sure that the stimulus of the heat of the house gave him power of resistance to the cold.

Dr. Pearse is undoubtedly correct in his observation that one can come from a hot room into the cold outer air and run but little chance of catching cold. The danger is rather in entering a hot room from without, and especially in entering an overheated and unventilated apartment filled with excrementitious products from the lungs and skin of its inmates. A change from a hot to a cold atmosphere can be made suddenly, but that from extreme cold to indoor heat should be made gradually if one would avoid the catarrhal consequences of "catching heat."

* * *

Treatment of Warty Growths of the Genitals. — William S. Gottheil, in a paper on epithelioma of the penis read before the Society for Medical Progress, November 14, 1896, concludes as follows (*International Journal of Surgery*, January, 1897):

1. Warty growths of the genitals, more especially in the male, are always to be suspected of malignancy, no matter how innocent they seem.

2. They should either be left entirely alone, or be thoroughly removed by knife or cautery.

3. Imperfect attempts at destruction, as with nitrate of silver, carbolic acid, etc., are especially to be avoided; there being many cases recorded in which they have apparently stimulated a benign growth into malignant action.

* * *

Contagious Impetigo. — (William S. Gottheil, M. D., *Pediatrics*, October, 1896): This is a self-limited contagious disease of children appearing in localized epidemics and first described by Tilbury Fox in 1864. Accompanied by a moderate fever and some gastric disturbance

there appear on the face and hands groups of flat vesicles filled with transparent or cloudy serum. These dry up into characteristic golden-yellow crusts, which fall off in two or three weeks, leaving circular, reddened, non-ulcerated areas behind. Successive crops of vesicles may prolong the disease for two months or more. It is undoubtedly parasitic; but, though Kaposi claims to have found it, the etiological factor is still unknown. The treatment consists in removal of the crusts with olive oil compresses, cleansing the skin with hot water and soap, boric acid solution, etc., followed by the use of Lassar's paste:

℞.—Acid. salicylic . . . 30 grains.
Petrolati . . . . . 1 ounce.
Zinci oxidi . . . . .
Amyli . . . . āā. ½ ounce.

* * *

A Statistical Study of Epidemic Measles. — As a result of a careful study of epidemic measles, with especial consideration of the epidemic observed at Munich in the year 1887, Möller (*Medical Record*) formulates the following conclusions: There is no such periodicity of epidemics of measles, with constant intervals, as to justify the acceptance of a law of periodicity. The occurrence of an epidemic of measles requires the introduction of the contagium and the presence of a number of persons not previously affected with the disease. Besides, the epidemic occurrence of measles depends upon the coincidence of yet unexplained accessory causes varying with the season of the year. Whether or not the warmer period of the year, directly through the higher temperature, or indirectly through attenuation of the contagium in consequence of freer ventilation of living rooms, exerts a favorable modifying influence upon the morbility of measles has not yet been determined. The mortality of measles in Munich has reached two maxima during the year for a period of twenty years, a smaller in December and a higher in May and June. The mortality of measles in Munich during the first and more especially during the second half of the decennium from 1880 to 1890, while almost treble the average for the preceding decennium, declined considerably in the succeeding years. No period of life possesses entire immunity from infection with measles, although the predisposition is less in infancy. Almost the total mortality in Munich is confined to the last five years of life; the first and second years present approximately the same absolute mortality. The relative mortality in Munich is for the first year fifty-five times, for the period from the second to the fifth year twelve times as high as that after the age of five years. Although in consequence of the shortening of the interval between epidemics the average age of morbility has fallen, a lowering of the average age of mortality has not taken place in Munich. Both sexes suffered alike in Munich in regard to the morbility of measles. The absolute as well as the relative mortality in Munich displayed considerable differences in different parts of the city.

* * *

Atresia and its Causes. — Meyer (*British Medical Journal*) has published a very complete monograph on this subject, with no fewer than 216 cases carefully tabulated. He does not confirm Kussmaul's doctrine that ill-development of the lower part of the genital tract with atresia is due to fetal inflammation. It is in infancy and childhood that these inflammations occur, such as vulvitis and local lesions in general infectious disorders. The vagina closes, the tissues heal and look healthy after a time, and it is not till puberty that the damage becomes manifest. Then it is easy to understand how the disease might be wrongly considered congenital. Unilateral hematosalpinx, with inflammatory closure of the vagina, is very often observed, and Meyer holds that there is closure of the tube at the ostium from the same inflammation, due to some infective agent. As the agent can cause septic changes in the blood in the tube, the ultimate rupture of the hematosalpinx into the peritoneum or into some visceral cavity puts the patient to great peril. This explains the high mortality of atresia vaginae with unilateral hematosalpinx.

MARYLAND

Medical Journal.

PUBLISHED WEEKLY.

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MARYLAND MEDICAL JOURNAL,
209 Park Ave., Baltimore, Md.

WASHINGTON OFFICE:
913 F Street, N. W.

BALTIMORE, JANUARY 9, 1897.

THERE is no class of patients presenting a more hopeless prognosis in general family practice than the confirmed epileptic. Even in the "epileptic home" it is difficult to enforce that dietary and moral control which must be the basis of all treatment in the majority of cases. This statement is made, of course, with the understanding that confirmed epilepsy has been distinguished from single epileptoid attacks, alcoholic, "uremic," and hysterical convulsions, a discrimination by no means simple.

Treatment of Epileptics.

It is always interesting to learn what experience is teaching in the special hospitals concerning the therapeutics of this disease, and therefore a glance at the report of Dr. Flood upon the results obtained in the Hospital Cottages for Children at Baldwinville, Mass. He says (*Atlantic Medical Weekly*, October 24) that in ten years past 150 cases have come under his care in which a sufficient period after his close observation has elapsed, mostly three years, to test the value of his statistics. (In this precaution he shows a rare judicial spirit.)

The reader should peruse the original report, which is full of thought. An attempt was first made, on admission to the hospital, to treat, by baths, diet, moral control, occupation, prolonged recumbency, careful mastication of food, lavage of stomach, attention to decayed teeth or defective vision, or throat and nose inflammations, without any drugs and in ten cases the spasms ceased under these measures. In most cases bromides of potash had eventually to be given. The other bromides (strontium was not used) and mixtures of them presented no superiority to the potash salt. Nickel bromide was disused on account of the vomiting it excited. Animal extracts, hydrocyanate of iron and solanum carolinense were useless. Antipyrine and the bromides, calabar bean and the bromides were of some value. Potassium iodide was very efficient at times, equal to the bromides. Continued saline purgation and tonics were frequently useful. Haig's methods gave results like those of other good plans. Twenty boys were castrated, with considerable advantage in morals and in moderation of the fits.

The patient who has taken bromides for years will, if he wholly stops the drug, be better for a few days, then symptoms of dementia occur. On forced feeding and stimulants he picks up. After three or four weeks he has a few more fits. Then he becomes as he was when formerly taking bromides and continues so if the case is favorable.

Altogether, 25 out of the 150 were cured of the epilepsy. Eleven of the twenty-five are now bright, healthy children. The remaining fourteen are more or less feeble in mind or morals.

* * *

SLIGHT chilliness or coldness of hands and feet is very frequent in children. It may be due to imperfect protection of the body by under clothing or outer clothing. It may be a sign of some indigestion process, apart from exposure to cold. Fully developed rigors, on the contrary, as in the adult where the skin becomes anemic and wrinkled (goose-flesh), the teeth chatter and the tem-

Rigors in Children.

perature shoots up, are very rare in children. This is so well-known that in suspected malarial attacks we do not look for the chill as an important diagnostic point.

With reference to rigors in "septic" infections, Dr. Baldwin (*Lancet*, June 13) presents some interesting statistics from the surgical wards of a great London child's hospital. In adults suffering from surgical troubles the onset of rigors is one of the alarm signals indicating that trouble is brewing. In abscesses and wounds they almost certainly indicate that the blood stream is becoming infected by septic matters from the ailing part.

In children, on the contrary, this danger signal is almost always wanting, and if present it may not indicate exactly the same complication as in adults. In septic abscesses, many of which were recorded, some with general pyemia, rigor was almost wholly absent. In fourteen cases of cellulitis, many of them presenting other plain septic symptoms, no rigors were noted. In three cases of empyema no rigors were mentioned. In twenty-one cases of acute epiphysitis, twelve of them fatal, nothing is said of any rigors having occurred.

The above records seem to have been kept with care, as shown by their fulness in regard to other details. It is also worthy of note that convulsions, which so often in children replace the ordinary danger signals (subjective) of the adult, did not with any frequency take the place of rigors in these cases.

The paper of Dr. Baldwin contains many other details of value concerning this diagnostic symptom, among others, records which show its unreliability (according to adult standards) in suppuration of the middle ear and mastoid with threatened lateral thrombosis.

* * *

FEW persons like to have their idols shattered and their fine dolls turn to sawdust.

Lithia Water.

Dr. Charles Harrington of the Harvard Medical School, who some years ago showed the true value of the so-called diabetic bread and flour, now strikes a blow at the various lithia waters and goes on to show that lithia itself plays a very small part in the good effects or supposed good effects of this pleasant medication. Dr. Harrington states in the *Boston Medical and Surgical Journal* that he went out into the open market and bought several varieties of lithia water as put up by firms whose wares are made well-known through broadcast advertising. These waters he carefully analyzed. It would hardly be necessary to go into the exact course of analysis which the author pursued, but suffice it to say that of three of the lithia waters, which are household words and used by physician and layman alike, he found in two absolutely no lithia at all, in the third such small quantity that the good effects of the water could hardly be traced to this salt. All three of the waters were clear, colorless and odorless, but two of them by reason of their excessive hardness were not to be recommended for general household use, and while the third was a good water for domestic use, none of them had any special medicinal value. These waters may not do what their owners claim, yet at the same time they are of great benefit because when a person is put on a course of water, whether by his physician or with the suggestion of a friend, there is usually accompanied with this prescription the injunction to eat sparingly, take no alcoholics and lead a regular life with plenty of sleep. Such a course with any kind of water would likely effect a cure in most cases.

Too many persons, as a rule, do not drink enough water to flush out the waste materials in the body and if the prescribing of supposed lithia water makes a man drink plenty of good, pure water and abstain from many things that are harmful then let what please have the credit but rejoice in the cure. Dr. Harrington's work carries with it a conviction that he is honest and not writing for spite or in favor of any person or persons. Many physicians in prescribing lithia water usually advise the addition of some salt of lithia to the water, but few persons would have believed that two of the best known lithia waters contained absolutely no lithia at all. Therefore, to pay twenty cents a bottle for what may be obtained for much less is a species of faith cure, but if Dr. Harrington's conclusions are correct the transaction is hardly to the credit of the wealthy spring owners.

* * *

EXCELLENT work is being done in the bacteriological laboratory of the Health Department of Baltimore under the direction of Dr. Wm. Royal Stokes.

Medical Items.

We are indebted to the Health Department of Baltimore for the following statement of cases and deaths reported for the week ending January 2, 1897.

Diseases.	Cases Reported	Deaths.
Smallpox		
Pneumonia		31
Phthisis Pulmonalis		26
Measles		
Whooping Cough	9	2
Pseudo-membranous Croup and Diphtheria.	28	8
Mumps	3	
Scarlet fever	23	
Varioloid		
Varicella	7	
Typhoid fever	6	2

Dr. Bumm of Erlangen has been made professor of psychiatry at Munich.

There were 440 members in attendance on the Pan-American Medical Congress at Mexico.

The Louisiana State Board of Health examines gratuitously sputum for suspected tuberculosis.

The members of the dispensary staff of the College of Physicians and Surgeons held their annual banquet last week.

Behring of antitoxine fame has succumbed to that disease against which there is no known antidote—matrimony.

It is said that some American hotels, in imitation of foreign hostelries, sell the "resident physician's privileges" to the highest bidder.

The New York Health Board has drawn up a modern death certificate and submitted it to a number of physicians for examination, criticism and suggestion.

It is proposed to found in Germany a German society of Pathologic Anatomy to meet once a year. The committee on organization consists of Virchow, von Recklinghausen, Ponfick, Ziegler, Prag and Hanan.

There is rarely a period when some unfortunate English physician is not suffering the pangs of a lawsuit, the costs of which are borne in part by kind colleagues. American physicians seem as a rule to keep out of such scrapes.

The Philadelphia Polyclinic School of Medicine did a very gracious act when it offered the New York Polyclinic, whose buildings were destroyed by fire recently, to honor all its students' tickets.

Dr. Ernest Wende has been reappointed health commissioner of Buffalo for four years and Dr. Walter D. Green deputy health commissioner.

Dr. E. M. Magruder of Charlottesville and Dr. Charles W. Rodgers of Fisherville succeed respectively Drs. J. Edward Chancellor and H. M. Patterson, lately deceased, on the Medical Examining Board of Virginia.

The following has been received from the Pasteur Monument Committee: "It has been decided to erect in one of the squares of Paris a monument to the memory of M. Pasteur. Statues or busts will also no doubt be located at his birthplace and in other cities. The Paris committee has, however, wisely determined that the statue obtained through international effort shall be located at Paris, where it will be seen by the greatest number of his admirers from other lands. The Paris committee has kindly extended the opportunity to the people of the United States to assist in this tribute of appreciation and love and have authorized the organization of the Pasteur Monument Committee of the United States. The members of this committee gladly accept the privilege of organizing the subscription, and of receiving and transmitting the funds which are raised. We believe it is unnecessary to urge any one to subscribe. The contributions of Pasteur to science and to the cause of humanity were extraordinary, and are so well-known and so thoroughly appreciated in America, that our people only need the opportunity in order to demonstrate their deep interest. No one is expected to subscribe an amount so large that it will detract in the least from the pleasure of giving. A large number of small subscriptions freely contributed and showing the popular appreciation of this eminent Frenchman is what we most desire. The amounts thus far subscribed by individuals vary from fifty cents to ten dollars. It is hoped that no one who is interested will hesitate to place his name upon the list because he cannot give the maximum amount. The MARYLAND MEDICAL JOURNAL will be pleased to receive subscriptions and forward them to the treasurer of the committee."

Book Reviews.

DIAGNOSTIC URINALYSIS. By M. D. Hoge, Jr., M.D., Professor of Histology, Pathology and Urinology, University College of Medicine, Richmond, etc. George M. West, Publisher, Richmond, Va. Price $1.00 Pp. 87.

This excellent little manual is rather a record of the clinical significance of certain morbid conditions of the urine than a guide to urinary analysis. The author understands his subject and seems to have omitted little of importance. The lack of illustrations is unfortunate as they are of immense importance in this subject. The book is reprinted from the *Virginia Medical Semi-Monthly*, in which the series of articles appeared in the past year. The word "urinalysis" has no philological basis and is not a good one. The worker in urinary analysis will find in this manual all the simplest tests clearly explained with the clinical significance.

PTOMAINES, LEUCOMAINES, TOXINES AND ANTITOXINES; or the Chemical Factors in the Causation of Disease. By Victor C. Vaughan, Ph.D., M.D., Professor of Hygiene and Physiological Chemistry, and Frederick G. Novy, M.D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. New (third) edition. In one 12mo volume of 603 pages. Cloth, $3.00. Philadelphia: Lea Brothers & Co. 1896.

Previous editions of this book have been noticed in these columns before. In this the third edition, the authors have thoroughly revised the book and brought it down to the date of publication. The book opens with a historical sketch of the subject and then follows chapters on the various diseases and those on immunity. The work is an exhaustive one and is evidently the result of a prodigious amount of labor. The spelling on the title page and back of the book do not agree.

REPRINTS, ETC., RECEIVED.

Acute Suppurative Inflammation of the Middle Ear; Acute Suppurative Mastoiditis; Abscess of the Neck; Operation. By Seth S. Bishop, M.D., Chicago. Reprint from the *Laryngoscope*.

Adenoid Vegetation of the Vault of the Pharynx. By Seth S. Bishop, M. D., Chicago. Reprint from the *New Albany Medical Herald*.

Current Editorial Comment.

PURE WATER WANTED.

American Medico-Surgical Bulletin.

THE universal cry is now for a pure water supply. In all the large cities the public is making this demand, owing largely to the education of the public by the medical profession. The doctors are always curtailing their business, and nobody seems to appreciate it.

NIGHT EMERGENCY CALLS.

American Medico-Surgical Bulletin.

VIEWED as a matter of absolute legal right, no physician is obliged to give his time or services any more than a baker is obliged to give his bread to the city poor. But physicians have encouraged medical pauperism and cheapened the value of their services so systematically, in the matter of free clinical and dispensary practice, that they have themselves to thank for the result that the great mass of citizens, poor and well-to-do, habitually regard it as their right to demand medical aid at all times, without the faintest expectation of paying for it. Certainly there is a commercial basis to the practice of medicine. Physicians do not desire, and would not accept, the allowances, reductions and gifts which, for example, many clergymen expect and claim as their right. They do desire and deserve a *honorarium* proportionate to the means of the patient. For attending cases whose relief is properly a public expense they ought to receive some compensation out of the public treasury.

THE FOOLISH PHYSICIAN.

Medical News.

THE average doctor is servile and short-sighted to an extraordinary degree, bent not only upon his own destruction, but also upon endangering the entire fabric of a noble and benevolent profession. Even plumbers and members of other trade-unions protect themselves by curtailing apprenticeship and by keeping out ignorant cut-throats. Why shouldn't doctors? But it is too late! Even now as we near the vortex of muddy competition, and as we are about to go down for the last time, we must acknowledge a bitter justice in our fate; for years of neutrality and final servility have taught pompous laymen, who pose as public benefactors and philanthropists, that doctors will stand any amount of robbery and degradation to secure and keep a hospital or dispensary position.

Publishers' Department.

Convention Calendar.

BALTIMORE.

BALTIMORE MEDICAL ASSOCIATION, 847 N. Eutaw St. Meets 2d and 4th Mondays of each month.

BOOK AND JOURNAL CLUB OF THE FACULTY. Meets 2d and 4th Wednesdays, 8 P. M.

CLINICAL SOCIETY, 847 N. Eutaw St. Meets 1st and 3d Fridays—October to June—8.30 P. M. S. K. MERRICK, M. D., President. H. O. REIK, M. D., Secretary.

GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE, 847 N. Eutaw St. Meets 2d Tuesday of each month—October to May (inclusive)—8.30 P. M. W. S. GARDNER, M. D., President. J. M. HUNDLEY, M. D., Secretary.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE, 847 N. Eutaw St. Meets 2d and 4th Thursdays of each month—October to June—8.30 P. M. W. S. GARDNER, M. D., President. CHAS. F. BLAKE, M. D., Corresponding Secretary.

MEDICAL JOURNAL CLUB. Every other Saturday, 8 P. M. 847 N. Eutaw St.

THE JOHNS HOPKINS HOSPITAL HISTORICAL CLUB. Meets 2d Mondays of each month at 8 P. M.

THE JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY. Meets 1st and 3d Mondays, 8 P.M.

THE JOHNS HOPKINS HOSPITAL JOURNAL CLUB. Meets 4th Monday, at 8.15 P. M.

MEDICAL SOCIETY OF WOMAN'S MEDICAL COLLEGE. SUE RADCLIFF, M. D., President. LOUISE ERICH, M. D., Corresponding Secretary. Meets 1st Tuesday in the Month.

UNIVERSITY OF MARYLAND MEDICAL SOCIETY. Meets 3d Tuesday in each month, 8.30 P. M. HIRAM WOODS, JR., M. D., President, dent. E. E. GIBBONS, M. D., Secretary.

WASHINGTON.

CLINICO-PATHOLOGICAL SOCIETY. Meets at members' houses, 1st and 3d Tuesdays in each month. HENRY B. DEALE, M. D., President. R. M. ELLYSON, M. D., Corresponding Secretary. R. H. HOLDEN, M. D., Recording Secretary.

MEDICAL AND SURGICAL SOCIETY OF THE DISTRICT OF COLUMBIA. Meets 2d Monday each month at members' offices. FRANCIS B. BISHOP, M. D., President. LLEWELLYN ELIOT, M. D., Secretary and Treasurer.

MEDICAL ASSOCIATION OF THE DISTRICT OF COLUMBIA. Meets Georgetown University Law Building 1st Tuesday in April and October. W. P. CARR, M. D., President. J. R. WELLINGTON, M. D., Secretary.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA. Meets Wednesday, 8 P. M. Georgetown University Law Building. S. C. BUSEY, M. D., President. S. S. ADAMS, M. D., Recording Secretary.

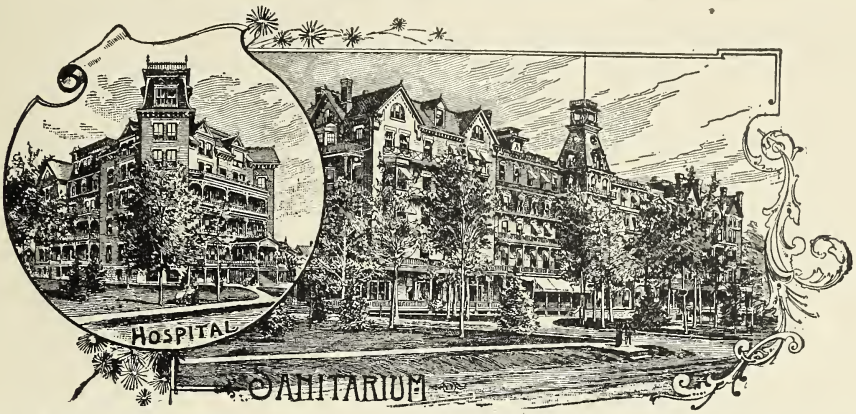
WOMAN'S CLINIC. Meets at 1833 14th Street, N. W., bi-monthly. 1st Saturday Evenings. MRS. M. H. ANDERSON, 1st Vice-President. MRS. MARY F. CASE, Secretary.

WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY. Meets 1st and 3d Fridays of each month at members' offices. GEORGE BYRD HARRISON, M. D., President. W. S. BOWEN, M. D., Corresponding Secretary.

PROGRESS IN MEDICAL SCIENCE.

LIFE OF SIR ASTLEY COOPER.—We have received from the Norwich Pharmacal Co., Norwich, N. Y., an entertaining and interesting brochure with the above title, written by the editor of the "Medical Muse." It is replete with anecdotes, more especially of his boyhood days, and will well repay a perusal, not only for the vivid descriptions of the manner and dress of a surgeon ninety years ago, but incidentally to the discovery by Cooper of the virtues of the healing properties of Alum, in which Unguentine, made by the Norwich Co., is a modification of his celebrated formula. It contains a portrait of Cooper painted by Sir Thomas Lawrence, president of the Royal Academy, the original of which hangs in Guy's Hospital, London, also the rare picture of Cooper's debut in surgery, and is intended as a New Year's present by the firm, who will send it to any physician on receipt of a postal card.

WE take pleasure in acknowledging the receipt of a booklet entitled "The Relief of Pain," by Dr. William R. Hayden of Bedford Springs, Massachusetts. Its author is known to the medical profession throughout this country and abroad as the originator of "Hayden's Viburnum Compound" and the president of the New York Pharmaceutical Company, which manufactures this famous article. Dr. Hayden's "Anesthesia," in which he has so ably championed the claims of Dr. Morton as the real discoverer of painless surgery, has had universal distribution and has probably done more to disperse the doubt and confusion with which this great honor was so thickly beset than any other instrumentality. The illustrations which grace the pages of this hand-book for 1897 are from original drawings by leading Boston artists. "The Substitutor," "Anesthesia," "Alkozar, the Alchemist," "Death" and "Resurrection," are all noteworthy productions. It is but fair to say that the substantial returns which have come to the author of Hayden's Viburnum Compound is a just recognition of the intrinsic value of this antispasmodic, which has been before the profession for the past thirty years and carries the written endorsements of over seven thousand physicians. The public-spiritedness of Dr. Hayden has been manifested throughout his long career and he has been preserved in health to enjoy the fruits of his genius. Many physicians recall with pleasure the hospitality experienced at "Lakeside," Bedford Springs, where the Doctor's public efforts are best known and where he has filled all the principal offices to the benefit of the public weal, and for the past year has been a member of the Massachusetts Legislature. The medical profession delights thus to honor one whose life has been truly a benefaction.



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The Institution is Conducted Strictly within Ethical Lines.

For information concerning the facilities afforded, terms, etc., address **THE SANITARIUM, Battle Creek, Mich.**

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If there is any reason why you should use a vaginal antiseptic, there is every reason why you should use Tyree's Antiseptic Powder. When you use a vaginal antiseptic, you use it to cure, you want it to cure as quickly, as harmlessly and as cheaply as possible. That's why you should use

TYREE'S POWDER

It cures quickly and cheaply and it cures to stay. Many doctors write me and would sooner have one box of it than a barrel of anything else. If one box of it will do the work of a barrel of anything else, it must have the strength of a barrel at the cost of a single box (75c.). There's the point in a nutshell. It pays every way to use *Tyree's*. One or two teaspoonfuls to a pint of water always relieves.

Borate of Sodium, Alumen, Carbolic Acid, Glycerine, and the crystallized principles of Thyme, Eucalyptus, Gaultheria and Mentha.

J. S. TYREE, Chemist, Washington, D. C.

ELIXIR SIX APERIENS

A PURE LAXATIVE, made from fresh selected Drugs. Suitable for all ages and conditions in removing Constipation. FORMULA: Each fluid ounce (with aromatics) contains: Rhamni Purshiani Cortex (Cascara Sagrada), gr. xxx; Podophyllum Peltatum (May Apple), gr. xxx; Taraxacum Officinale (Dandelion), gr. xxx; Juglans Cinerea (Butternut), gr. xxx; Cassia Acutifolia(Alexandria Senna), 1 drachm; Potassii et Sodii Tartras (Rochelle Salt), 1 drachm. There are few disorders that cause so much mischief as CONSTIPATION. The ELIXIR SIX APERIENS is recommended as a *pleasant, efficient*, and *trustworthy* remedy for *obstinate constipation* of the bowels and the diseases which attend it, as *Headache, Flatulence, Piles, Liver, Stomach, Intestinal and Uterine Troubles*, and the MANY OTHER AILMENTS which the physician can trace to FÆCAL RETENTION. Among the many advantages this Elixir has, it does not tend to leave the bowels in a confined state, but strengthens the muscular fibers of the Intestines, thereby producing permanent benefit upon the peristaltic action of the bowels. The tendency to griping and nausea produced by the ordinary Cathartic is overcome by this elegant Pharmaceutical Preparation, which MOVES THE BOWELS GENTLY WITHOUT PAIN OR OTHER INCONVENIENCE. We attribute its mild and efficient action on the bowels to the *combination* of the six well-selected Laxatives. It is the *combination* which is so *remedial*, proving that the *united action of remedies* is often requisite to success when either alone is insufficient. Physicians when prescribing will please write: R. APERIENS ELIX. SEX.—One bottle. (WALKER-GREEN'S). The Druggist will please write directions on his own label. Attention is also called to our ELIXIR SIX BROMIDES, ELIXIR SIX HYPOPHOSPHITES, and ELIXIR SIX IODIDES, which are unexcelled for clinical efficiency and palatability. Wholesale price per dozen: Iodides, $8.00; Bromides, $8.00; Hypophosphites, $8.00; Aperiens, $8.00. SEND FOR DESCRIPTIVE CIRCULAR. These Elixirs are kept in stock by Wholesale Druggists generally throughout the United States.

The Walker-Green Pharmaceutical Co.

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A liberal discount will be allowed Physicians who desire to prove their clinical efficiency.

Progress and Invention.

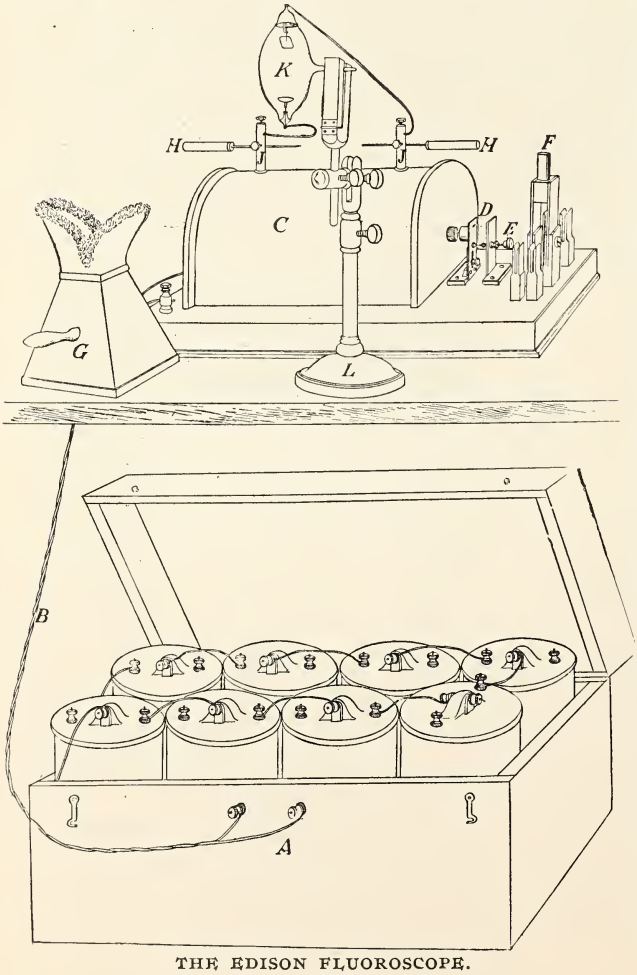
THE RÖNTGEN RAYS.

Among the innumerable scientific achievements of recent years, perhaps none are destined to take precedence of Professor Röntgen's discovery of the X rays. Most marvelous results have followed these experiments on radiant matter.

The essential features of the apparatus are as follows: 1. The Crooke's vacuum tube. 2. The Edison fluoroscope. 3. The Ruhmkorff coil. 4. A battery or 120 volt direct current.

Through the kindness of Mr. B. A. Nelson, General Manager of the Chas. Willms Surgical Instrument Co., we saw a most excellent and interesting exhibition of this wonderful light.

The Crooke's vacuum tubes were devised by Sir William Crööke when experimenting with radiant matter, and originally consisted of globular and pear-shaped glass tubes, having metal electrodes at right angles to each other, and which were exhausted to a very high vacuum, so that the remaining molecules would be free to move in the very attenuated medium. When the current from a powerful induction coil, suitably excited by an electric current, is applied to the terminals of the tube, the cathode emits a powerful stream of cathode rays, which are thrown against the opposite walls of the glass tube with such force as to cause the glass to fluoresce, and heat very perceptibly. The X rays are generated on the surface of the tube, at the point of fluoresence. In the apparatus which we saw exhibited, the focus tube was used, in which the cathode is of concave circular form, and the anode consisted of a square, flat piece of platinum placed directly opposite the cathode, and at an angle of 45 degrees. In this tube the cathode rays are concentrated to a point in the flat platinum anode, from which point issues a powerful stream of X rays. When using focus tubes it is found that the shadows are more sharply defined and that the time of exposure when making skiagraphs is greatly shortened. The Edison fluoroscope is an instrument very similar in shape to the stereoscope, the body being of tapering form, with the small end formed to fit tightly over the eyes and the bridge of the nose, and the large end closed with a piece of cardboard, the inner surface of which is covered with a uniform layer of fine crystals of tungstate of calcium. This constitutes the fluorescent screen and is the essential feature of the device. It was found that tungstate of calcium possessed far more fluorescent power than barium platino-cyanide and it was this discovery that enabled the X rays to be practically utilized as one of the most powerful agents in surgical diagnosis. The object to be examined is held between the screen and the electrified Crooke's tube, when the radiograph of the object is delineated upon the screen.



THE EDISON FLUOROSCOPE.

The Ruhmkorff coil is a very familiar instrument and does not require any minute description; briefly speaking, it is a device for transforming a low tension current into a current of very high tension. It is necessary to excite the coil by means of a powerful battery, and Mr. Nelson informs us that in his experience the most suitable cell for that purpose is the Edison-Laland cell, as it will give a perfectly steady current during the whole time that it is in use and that there is no waste when the battery is idle.

Therapeutic Suggestions

How To Treat a Cough

In an able article under the above heading in the *New York Medical Journal*, Edwin Geer, M. D., Physician in Charge of the City Hospital Dispensary; also Physician in Chief, Outdoor Department, Maryland Maternité Hospital, Baltimore, writes:—

"The object of this brief paper is not to try to teach my colleagues how to treat a cough, but simply to state how I do it, what good results I get, and to call their attention to those lighter affections of the throat and chest the principal symptom of which is an annoying cough. for which alone we are often consulted. The patient may fear an approaching pneumonia, or be anxious because of a bad family history, or the cough may cause loss of sleep and detention from business. What shall we do for these coughs? It has been my custom for some time to treat each of the conditions after this general plan: If constipation is present, which is generally the case, I find that small doses of calomel and soda open the bowels freely, and if they do not, I follow them with a saline purgative; then I give the following:

℞ Antikamnia and Codeine Tablets, No. xxx.
Sig.: One tablet once every four hours.

"The above tablet contains four grains and three-quarters of antikamnia and a quarter of a grain of sulphate of codeine, and is given for the following reasons: The antikamnia has a marked influence over any febrile action, restores natural activity to the skin, and effectually controls any nervous element which may be in the case. The action of the codeine is equally beneficial, and in some respects enforces the action of its associate. The physiological action of codeine is known to be peculiar, in that it does not arrest secretion in the respiratory or intestinal tract, while it has marked power to control inflammation and irritation. It is not to be compared with morphine, which increases the dryness of the throat, thus often aggravating the condition, while its constipating effect is especially undesirable."

The London Lancet's Endorsement

"Antikamnia is well spoken of as an analgesic and antipyretic in the treatment of neuralgia, rheumatism, lagrippe, etc. It is a white powder of a slight bitter taste and alkaline reaction. It is not disagreeable to take, and may be had either in powder or tablet form, the latter in five-grain size. It is described as not a preventive of, but rather as affording relief to, existent pain. It appears to exert a stimulating rather than a depressing action on the nerve centers and the system generally."

It never irritates

if used with a clean needle.

Dose: 5 to 20 minims.

It never nauseates

when given by the mouth.

Dose: 5 to 30 minims.

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For Circulars and any other further information apply to
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The success which has attended the organization of the Dental Department of the University of Maryland, as evinced by the large class in attendance on the lectures and demonstrations of the last session, is unprecedented in the history of any other dental institution. It is also an evidence of a just appreciation of the advantages which the dental department of an old and honorable university offers to the student in the acquirement of knowledge, theoretical and practical, so essential to the successful practice of dentistry. Every facility is afforded for thorough instruction in all the branches pertaining to dental science.

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Its Medical staff comprises the FACULTY OF THE UNIVERSITY, and the entire management of the Institution, being under the direct supervision of that body, the sick may rely upon enjoying the benefits of an Infirmary as well as the comforts and privacy of a home, while seeking treatment for medical diseases and undergoing surgical operations.

Especial attention is called to the Lying-in Department of the Hospital, and the thorough privacy given to confinements.

When persons are compelled to leave their country residences to seek professional medical assistance in Baltimore no Institution offers greater facilities than the University Hospital, which presents, amongst other great advantages, that of having three resident Physicians, appointed by the Medical Faculty, all of whom are usually, one is always, in the building to carry out the instructions of the Professors.

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