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The Canadian Practitioner and Review.

Vol. XXV. TORONTO, DECEMBER, 1900.

No. 12.

Original Communications.

PRIMARY SARCOMA OF THE RIGHT NASAL FOSSA, WITH ACUTE FRONTAL SINUSITIS AND ORBITAL CELLULITIS.

BY PERRY G. GOLDSMITH, M.D.C.M., BELLEVILLE.

Mr. President and Members of the Canadian Medical Association:

My object in presenting this case is to add one more instance of an exceedingly rare affection of the intra-nasal structures, and to point out some interesting and instructive features of this case in particular.

The history of the case, briefly, is as follows:

Male, aged 48; well nourished, farmer; residence northern part of Peterboro' County; locality, healthy. Family and personal history unimportant, except a loss of twenty pounds in six

weeks and increasing weakness.

Patient consulted me on the 4th day of August last complaining of a badly swollen eye, double vision and severe frontal headache. On inquiry I elicited the following statement: One month previous, during a head cold, his upper eyelid became swollen, associated with some, though not particularly severe, frontal headache. Until this head cold he never noticed any special difficulty in breathing through either nostril. The eye swelling and headache not being relieved by domestic measures, he consulted a physician, who, not being able to detect any apparent cause for the edema of the eyelid, or for the slowly progressing protrusion of the eyeball, examined his nose, and, the patient tells me, removed five polypi, following which, he declares in spite of all cross-examining, five quarts of blood were lost. The physician, however, informed him that all had

not been removed. About a week following the removal of these growths the pain and swelling in the eye rapidly increased, resulting in an approximation of the upper and lower lids, with

inability to open the eye.

Two weeks following this I saw the patient for the first time, the complaint being a swollen eye, very violent frontal headache and double vision. Without asking any questions whatever, I surmised he had been stung by some insect, the edema of the lid being so marked and apparently so recent. The eyeball was very prominent and displaced downward and outward, conjunctiva slightly congested, pupil active and same size as unaffected eye, tension normal. Fundus normal, except engorgement of retinal veins and optic disc somewhat redder than normal, but not prominent or blurred. On palpation nothing could be elicited, except a slight tumescence deeply situated at the inner part of the upper lid. Here it was tender, and on pressing the adjacent wall of the frontal sinus very marked pain occurred. He informed me the pain at this point was some time previous much more severe.

On examination of the nose I saw a swollen and roughened condition of the anterior end of the inferior turbinal and a good deal of necrotic debris, such as one would expect to find after tearing away a few polypi with forceps and leaving the remainder for another occasion. There was very little dried blood, no pus, no odor whatever. I was unable to inspect the superior or middle meatus owing to a mass of tissue greatly resembling polypoid tissue, but much redder. Ten per cent. solution of cocaine produced little effect. With a post-nasal mirror I noticed the right space closed by a similar polypoid-looking

mass.

The left nostril was normal, except for a slight deviation toward the left of the posterior part of the septum. Transillumination of frontal sinuses and maxillary was not satisfactory. I was, however, satisfied that there was a collection of pus in the right frontal sinus and possibly also deep in the orbit, which was the cause of the cellulitis in the right eye, and the frontal

sinusitis was due to nasal obstruction.

Having cocainized the nostril well with 15 per cent. solution of cocaine, and a 10 per cent. solution of suprarenal glands, I proceeded to remove the polypoid mass with a cold snare. I noticed when the wire was being put into the nostril I could feel a large mass move to front of it, as is frequently noticed in removing large multiple polypi. Having placed the wire in position, I drew it home, but was much surprised at how easily it seemed to cut through the tissues. Nothing being in the loop, I thought it must have slipped, and tried again, with the same result. Hemorrhage was very free in spite of supra-

renals, but was controlled by packing. On removing the packing, I noticed, with a probe, a large mass lying loose in the floor of the inferior meatus. This bluish, pulpy mass I picked out with forceps and retained. Behind this and on the floor of the nose I saw another mass, reddish violet in color, with irregular surface, bleeding easily to the gentlest touch of a blunt probe. The septum adjacent was noticed to be very nodular and angry, in fact, very similar to the seared surface of the turbinal after the slough comes away following the galvano cautery. These



spots bled easily; the superior and middle meatus was likewise filled with these easily-bled masses of reddish violet tinge. My desire being to catheterize the frontal sinus, I persisted in removing these masses, confining myself particularly to the superior meatus, and using a scoop entirely. I removed a very large mass of tissue, in fact, there seemed to be no end to it. I was able eventually to open the sinus, and after using a catheter was pleased to find pus coming down. I irrigated the cavity as best I could, and applied cocaine, 20 per cent. to

superior meatus to keep patent the opening to frontal sinus if possible, and placed an astringent tampoon well to the floor of the nose.

Very shortly my patient, within an hour, was a great deal easier—he said he was a hundred times better, in fact, also no pain whatever. Next day still free from pain, and tenderness over the orbital wall of the frontal sinus was very much lessened, while the edema of the lids and protrusion of the eyeball was somewhat reduced. Antiseptic and astringent sprays for a few days were used, together with frequent catheterization of the frontal sinus. I was much inclined to look upon the ease as one of malignant disease, the eve trouble being due to cellulitis caused by infection from the frontal sinus or infection through the orbital plate of the ethmoid bone. The patient was anesthetized in order that I could more thoroughly explore the cavity, and if possible scrape away more of the mass and get a passage to the pharynx Again I removed a great deal of necrotic debris, pus and blood, the latter being very copious. Exploring with my finger I found a very large cavity situated in the posterior part of the nostril, containing at the bottom a large pulpy mass, through which it was necessary to go to reach the posterior nares; from the size and direction of the cavity it probably communicated with the orbit through the orbital plate of the ethmoid bone. I was able to feel bare bone except above the region of ethmoidal cells. With one finger in the pharyngeal vault, I could feel a probe passed through the mass to the posterior nares. I finished clearing out the superior meatus, and left the larger mass alone.

I had sent some of the large scrapings to Dr. H. B. Anderson, who on pathological examination proved my suspicions correct. Dr. Anderson writes me as follows:

"Microscopic examination of the tissue removed from the nose shows a small round-celled structure, supported by a small amount of delicate and exceedingly vascular struma. The walls of the blood vessels are thin and poorly developed. I consider the tissue to show decided evidence of malignancy."

I should have mentioned also that there being a history of an ulcerated second bicuspid of the right side, followed by facial neuralgia, I decided to explore the antrum of Highmore. On attempting to open through to the antrum under the inferior turbinate bone, I was met with a plate of bone exceedingly hard, so I desisted here and secured easy access to the cavity through an alveolus of a second bicuspid, which had on some former occasion been removed. The lotion I irrigated with came away perfectly clear, though none came through the nostril. Following the last nasal curettage there occurred for the first time a continuous oozing of pus from the nostril, which

could be made to gush out on firmly pressing the orbital border of the frontal sinus. The odor of the nasal discharge was very peculiar, more like cancer of the uterus than anything else I could think of; it was also very tenacious. As domestic affairs demanded my patient's attention at home, I put him on a mixture of cod-liver oil with wine, iron and strychnine (Shuttleworth) and a nasal spray of menthol, thymol and albolene. His evening temperature for the few days he was with me ranged from 100 to 101.

I directed the patient, who lives over one hundred miles away, to return in ten days at the outside. He did not return until nearly three weeks, when his condition was as follows: The orbital swelling was fully as great and in the upper lid the skin was quite reddened as though pus might collect and point there. There was none, nor had there been since his going home, any pain whatever. He worked hard through the harvest and his appetite has been, as he says, splendid. He says he is better in every way and stronger. There has been an intermittent discharge of pus from the nose which is most marked some time after he has been up on his feet in the morning. Frontal sinus tenderness is nothing like it was, yet on pressure the pus will still come down in the nose. The roughened appearance of the turbinal and septum is gone. There is no bloody discharge at all and practically no odor. His fundus showed no material change, except probably a more tortuosity of the veins. The man is immensely improved, whether the thorough curettage his nose has been subjected to has modified. his case I will not say, but I took at once a more hopeful view of the case.

Sarcoma of the intra-nasal structures is probably quite rare. Price Brown says up to ten years ago Bosworth had collected forty cases. Since then, however, probably a dozen others have been reported. Lennox Brown, in speaking of malignant growths of the nose, says: "Sarcomata sometimes originate in the nasal fosse or may invade them from adjacent structures. The septum and nasal wall of maxillary sinus are apparently the commonest sites, though, he says, he could call to mind cases in which sarcomatous growths have been removed from the superior meatus under the impression that they were innocent, until rapid recurrence led to microscopal examination.

It is, I presume, fair to assume that the sarcomatous state in my patient is a transformation of a previous bony condition. This is merely a supposition, however. Lennox Brown again says, "A sufficient number of cases is now published to confirm the general, though but rarely recorded, experience of practitioners that any neoplasm occupying the nasal fossæ, whether myxoma or fibroma, is capable of assuming malignant character-

istics." He records one striking instance of nasal polypi taking on malignancy (sarcomatous) some months after efforts of removal. A few instances are also mentioned in nasal polypi taking on epitheliomatous transformation.

Nasal sarcomata differ in symptoms from nasal carcinomata in that sarcoma are less liable to ulcerate and bleed and do not so readily infect neighboring glands, though the soft nature of

the round cell variety of sarcoma bleeds very easily.

Green says of round-celled sarcoma that they are of softer consistency than the spindle-celled growths, and from its frequent resemblance in physical character to encephaloid, it is sometimes known as medullary encephaloid, or soft sarcoma.

Histologically it is elementary embryonic tissue, consisting mainly of round cells embedded in a scanty, soft, homogeneous or finely granular intercellular substance. They are exceedingly vesicular, the vessels often being dilated and varicose, and from their liability to rupture frequently, give rise to ecchy-

mosis, and to the formation of sanguineous cysts.

Dr. Rufus Baker, of Cleveland, in the Laryngoscope, a journal devoted to nose, throat and ear work, cites a case occurring in his practice, of a small tumor forming on the cartilaginous septum. The growth was removed and submitted to skilled microscopical examination, and was pronounced a non-malignant adenomata. Thorough curettage and cauterization followed the operation. Two years following, a recurrence appeared, and a portion of this, after being examined, was pronounced malignant by the same microscopist. The case was reported because of its rarity, and as a slight contribution to the mooted question as to whether a benign ever becomes transformed into a malignant one. Dr. Wurdeman, in the same journal, cites a case very similar to mine, in which polypi were forcibly twisted out. A recurrence following, microscopical examination of the polypi removed showed small round-celled sarcomata. The opinion is expressed that the originally benign condition was owing to trauma made malignant.

Sedziak, of Poland, writes of a case of intra-nasal sarcoma

treated successfully by intra-nasal methods.

Delle, in the *Rev. hebdom de Laryngol.*, records a case of endothelial sarcoma of the middle turbinal in a woman aged fifty-nine. The ethmoid cells and base of the skull were involved, causing meningitis and death without operation.

J. F. McKernon, in the Laryngoscope, writes of a case of epithelioma of the nose, involving the external wall and inferior turbinal in a man aged seventy-two. All the diseased parts were removed with good results, and no recurrence after several months.

In the same journal, Newcombe cites a case of adeno-sarcoma

of the nose in a woman of sixty-two years, making a total of thirty-two such cases to July, 1899. He combats Plicque's statement that frequently the ablation of numerous benign polypi is followed by new polypi, composed of epitheliomatous tissue. E. Winckler, in a paper entitled: "Ocular Symptoms and Nasal Disease," closely studies the relationship of these continuous structures. Such diseases as polypus he considers as influencing the eye through the circulation of the blood and lymph through continuity of connective tissue and through nervous connections. He regards the ethmoidal cells, on account of their location, as a sort of centre of distribution for most of the purulent infections.

In the discussion before the Laryngol and Rhinol section of the New York Academy of Medicine, the opinion was generally expressed that sarcoma of the septum was generally curable if performed early, but not so with other parts of the nose.

Fisher reports a case of diffuse cellulitis of the orbit secondary to empyema of ethmoidal cells. The patient was a male seventeen years old. Deep incision through the upper lid brought pus, but did not relieve the proptosis. Five days later the sinus opened spontaneously from the depth of the orbit through the skin near the inner canthus, giving relief to the proptosis. Failing to heal promptly, exploration discovered dead bone and one or two holes leading to the ethmoidal cells, through one of which a drainage tube was passed into the nostril, giving good exit to the pus, and a cure ensued.

Ebstein, in the *Chicago Clinical*, reports a case of orbital phlegm, following a case of acute empyema of ethmoidal and frontal sinuses. Removal of the anterior end of middle turbinal, and drainage of the ethmoidal cells gave relief and cure.

Lapelle, of Paris, in the Archives internat. de Laryng. gives the result of his autopsies of 169 bodies with reference to disease of accessory sinuses. In sixteen cases of cancer five empyemas occurred, one among eight women, and four among eight men. No mention is made of the particular sinus involved, nor of the location of the malignant neoplasm.

J. P. Clark, in the New York Med. Jour., records two cases of sarcoma of the septum. One was a male, age 35, on whom several operations were done for removal; but the patient finally succumbed. The other was a female, age 42, family history of cancer. A radical operation was done, and there was no recurrence.

Woaks, in his small work on "Nasal Polypus in Relation to Ethmoiditis," discussing the varieties of ethmoiditis, says: "Of the third group, about five or six examples only have been, as yet, observed by Dr. Woaks. In these a thin plate of atrophied

bone is found quite bare in the midst of an exuberant cauliflower-like excresence. The surface of this mass is covered with polyp-buds, some of which, growing in the direction in which space is afforded for their development, may attain the size and appearance of a small mucous polypi. The bulk of the growth, however, though of the myxomatous type, is of much firmer consistence; it is very vascular, bleeding freely when touched, and if removed with a snare, is reproduced in two or three weeks. It may soon fill the entire nasal cavity, and press upwards towards the cribriform plate of the ethnoid bone, the pressure exercised by the proliferating mass causing the neighboring tissues to become absorbed or greatly expanded. In the first case of this kind met with vision was destroyed in both eyes successively, the patient ultimately sinking from exhaustion. Though not malignant in the histological sense. the clinical results may rival those of the most malignant growths occurring in this region. Judging from reports of such cases which appear from time to time in the medical journals, they are often assumed to be of a sarcomatous nature. So far as the observations of the author extend, the disease when fully established rarely or never undergoes spontaneous On the contrary, its usual tendency is to progress, slowly and insidiously in some cases, very rapidly in others. Long periods of arrest prior to the stage of polypoid proliferation are, as already stated, frequent, but such latency is apt to cease and the disease become roused into activity by fresh catarrhs, or indeed by severe illness of any kind. On the other hand, there are many cases in which, though the proliferating phase is reached, the process does not advance beyond the development of a limited amount of myxomatous tissue, of the existence of which the patient may be ignorant, being conscious only of being "very liable to colds in the head."

The patients belonging to this class are usually advanced in years, and though they have been subject to the disease for a varying length of time, have, as a rule, neglected its treatment. The nasal cavities are found completely blocked with myxomatous growths of varying degrees of consistency, whilst the middle spongy bone is represented by a necrosed squama, or the cellular structure of the entire ethmoid bone is degenerated, and infiltrated with proliferating material. It is in these cases that the surgeon is confronted with the most perplexing problems with regard to treatment. Simply to remove these polypi is to invite their speedy return, and in some cases to favor the establishment of a quasi-malignant form of polypi proliferation.

In old subjects, or where the disease has existed over many years in comparatively young ones, the vitality of the entire region becomes lowered to such an extent that a very light shock will determine an acute necrosis of the adjacent bones of the face. This is particularly liable to happen when the frontal sinus has become invaded by the progress of the disease from the nose upwards, the matter from which escapes by a tortuous channel opening usually in the upper cyclid near the inner canthus. The condition of such subjects is clearly a perilous one, but they will exic. Enger without surgical interference than with it.

Patients of this group of polypoid disease are prone to implication of vision through the orbit being involved in the disease, and ophthalmologists are not unacquainted with fatal cases of blindness coming on as a sequela of so-called nasal polypus, but which cases are really examples of progressive ethmoiditis of

the type under review.

In the same work, again, in reference to implication of intraorbital structures, he says, "Casual allusion has already been made to this subject, but its importance increases as acquaintance with the disease widens. In the first case in which Rouge's operation was performed by Dr. Woaks, it was found that the left orbital plate of the ethmoid had disappeared, the orbit communicating freely with the nasal cavity. In this instance, however, the corresponding eye did not appear to have suffered. In a more advanced case of disease, in which the frontal and sphenoidal sinuses were largely involved, the patient lost the sight of both eyes some months before his death. In another instance well-marked proptosis of both eyes was present, giving an unsightly appearance to the features, but disappeared upon removal of the diseased portions of the middle turbinated bones. In these cases it is probable that inflammatory processes had extended from the nose to the orbit, producing changes in their extra-ocular contents only, and subsided on removal of the exciting cause—the contiguous nasal disease."

Treatment.—I think those who advocate leaving such cases alone will agree with me that I followed the proper course in removing sufficient of the mass to allow the drainage of the frontal sinus. The relief the patient received is satisfactory proof to me at any rate. Whether it is wise or even possible to remove the remainder of the growth, including the obliteration of the accessory nasal sinuses and even probably the removal of the eye, I do not propose to say, leaving this for your advice.

On seeing my patient after his going home the second time, I must say my prognosis underwent a more hopeful change. It was quite apparent that the thorough curetting that I gave the intra-nasal structures at least retarded the growth very materially, and I feel very much like resorting to a much more extensive operation to eradicate the remainder, though many eminent men favor entire intra-nasal operating.

As regards the eye, it was my desire on my first seeing him to make an incision into the orbital tissues to evacuate the pus that was probably present, but he would not consent, nor would he submit to any external operation on the frontal sinus. When I saw him the second time, and taking into consideration the marked improvement and entire absence of pain, together with his wish that nothing more be done at present, I left him, as he was continuing the intra-nasal medication as before. I have brought the patient here in order that you may see his condition and give him, as well as myself, the benefit of your advice. I might say that the patient, living as he does one hundred miles away from my office, I have not seen him for three weeks until to-day.

The particular points of interest in this case are, I take it, as follows:

1. The entire absence of any nasal symptoms whatever, yet the appearance of the man at once suggested mouth breathing.

2. The absence of any pain, except referred to the frontal

region, also absence of discharge and of odor.

3. The apparently gradual distension of frontal sinus and acute exacerbation of trouble following the preliminary twisting of the five polypi.

4. The rapidity of the loss of flesh, etc.

5. The predominence of the ocular symptoms, prominence of the eye, diplopia, displacement downward and outward of the eyeball and frontal pain.

6. Apparent immunity of maxillary sinus from infarction.

7. The immense relief following clearing the ostium to allow drainage.

8. The two sources of the orbital infection: (1) From frontal sinus; (2) through orbital plate of ethinoid bone.

SMALLPOX—NOTES ON EIGHTY-NINE CASES.

BY W. F. BRYANS, M.B.

Of these eighty-nine cases, 3 occurred in Toronto in 1892; 4 in Kent County, 1898; 6 in Leeds County, 1899; 51 in Tilbury West, 1899; 19 in Toronto Junction, 1900; 6 in Carleton Place, 1900. There were four deaths, two at Carleton Place and two in Leeds County. There were a number of outbreaks along the line of the C.P.R. at the time of the outbreak in Carleton Place. All these cases could be traced to the same source, and about the same death rate was maintained throughout, viz., one in three. Two of the four fatal cases were of the hemorrhagic type, and two of the confluent variety. Of the hemorrhagic cases, one died on the fourth day, and one on the tenth day of the disease. Of the other two fatal cases, both died on the thirteenth day. One of these became ill on the eleventh day of exposure. Of the eighty-nine cases, thirtyfour occurred in vaccinated persons, and fifty-five in unvaccinated persons. In many of the vaccinated, twenty or thirty years had elapsed since vaccination. In all the vaccinated persons the disease was of a mild type, with one exception. This person had a very small cicatrix. She had been vaccinated about thirty years previous to the time of exposure. Of seventy-seven vaccinated persons known to be exposed, thirty contracted the disease. Of forty-nine unvaccinated persons exposed, forty contracted the disease.

In some instances the protective influence of vaccination appeared to be very marked. For example, in one large boarding-house in Toronto Junction there were twenty-nine persons; of these, eighteen were vaccinated and eleven were not vaccinated. All were freely exposed to the disease, as thirteen cases occurred in the house. Of the eleven not vaccinated, ten contracted the disease. Of the eighteen vaccinated persons, three contracted the disease. These three cases were very mild; several of the others were moderately severe, and three were of the confluent type. Of 126 persons known to be exposed, not one having a well-marked cicatrix contracted the disease.

In one family, in which occurred a fatal case of the hemorrhagic type, two children, aged 3 and 5 respectively, and a girl aged 17, all unvaccinated, escaped the disease, though exposed for twenty-four hours after the rash appeared. In another family, a baby aged 8 months, and unvaccinated, slept with the patient three days after the rash appeared, but did not contract the disease. In a third family, a child aged 3, though freely exposed, did not contract the disease, though not vaccinated. Two other persons, unvaccinated, though only slightly exposed to the same case, contracted the hemorrhagic form and died. The two hemorrhagic cases were contracted from a mild case of ordinary discrete smallpox. The symptoms during the initial stage of the disease were in almost every case typical. The umbilication of the vesicle, during the vesicular stage, was present without exception, though much more marked in some cases than in others.

All cases that could be called severe, with one exception, occurred in unvaccinated persons. In the Essex outbreak, many

very mild cases occurred among the unvaccinated also.

Formaldehyd vapor was used in the disinfection of the clothing of seventy-three patients in eighteen houses. Soiled clothing was either burned, or soaked twenty-four hours in one in five hundred bichloride. The shortest time of exposure of clothing to the formaldehyd vapor was ten hours.

So far as known, patients dismissed have not carried the

disease elsewhere.

In many cases pillows, carpets, mattresses, quilts, etc., where not soiled, were disinfected by the formaldehyd vapor only and exposure to the open air.

In many families in Essex, persons suffered from all the initial symptoms of the disease, but no rash appeared. In the only three cases where pregnancy existed, miscarriage occurred.

The shortest period of isolation was twenty-six days, the longest sixty-three days. The highest temperature noted was

1061.

In eighty-seven of the eighty-nine cases the source could be traced. In two cases, not fatal, retention of urine occurred, necessitating the use of the catheter for ten days. In one case

quinsy occurred during the pustular stage.

Though the Essex cases were very mild generally, a few were severe. The same remark applies to the Toronto Inction cases. In one case thirteen boils occurred during convalescence. One patient had an attack of typhoid fever immediately after being dismissed. The several varieties of varioloid, described by Welsh in the American System of Medicine, were well illustrated in the Essex cases.

TUBERCULAR DISEASE OF THE TUBES WITH ACUTE PERITONEAL INFECTION.*

BY HERBEET A. BRUCE, M.D., F.R.C.S. (ENG.), Associate Professor Clinical Surgery, University of Toronto.

The case which I am going to report, I think is most typically one of primary tubercular disease of the tubes, with secondary peritoneal infection of a very acute type. In tubercular peritoritis the tubes are often affected, but the proportion given by various writers differs considerably. found the tubes involved in seven cases out of sixteen. thinks that in thirty to forty per cent. of cases in women, the tubes are found affected. The process is usually primary in the tubes, although they may, in a few instances, be involved secondary to the peritoneum. Before describing this case, I might be permitted to run over briefly some of the anatomical and clinical features of the disease. Osler describes tubercular peritoritis under the following three headings: 1st. Acute miliary tuberculosis, characterized by a sudden onset, a rapid development and a serous or sero-sanguineous exudation. 2nd. Chronic caseous and ulcerating tuberculosis, characterized by larger tuberculous growths, which tend to caseate and ulcerate. leading often to perforations between the intestinal coils and a purulent or sero-purulent exudate, often sacculated. Chronic fibro-tuberculosis, in which the process may from the outset be sub-acute, or may represent the final result of the miliary form. There is little or no exudation, and the tubercles are hard and pigmented. There exists the closest analogy between tubercle as we see it on the peritoneum, and as it occurs in the lung. The process in many cases is entirely local—an extremely important feature, particularly in discussing the propriety of operation, as the outlook is much more favorable in the absence of intestinal, pulmonary, or tubal complications.

The pleura is very frequently also involved. Boulland gives a list of eighty-two cases of tubercular peritonitis, in thirty-eight of which tuberculosis of the pleura with or without effusion existed. In Hane's list of twenty autopsies there were nine with pleural involvement. In twenty-five of Bristowe's forty-eight cases the pleura was affected. It is often only a dry pleurisy, occurring most frequently without pulmonary affection, and due to a direct extension through the diaphragm. The pericardium is also liable in these cases to be the seat of a

^{*} Reported at meeting of Clinical Society, November 14th, 1900.

tubercular inflammation. Tubercular peritonitis is most common between the ages of twenty and forty. It is somewhat common also in children, but rare in old age. It is more preva-

lent among females.

Clinically, it is extremely difficult to make a satisfactory classification. The process may go on so slowly and so painlessly that the patient may not have a single symptom of abdominal disease. The condition has, in this way, been met with in operations for hernia, or still more frequently in association with ovarian tumor. Osler quotes a case occurring in a man of forty years of age who was admitted into the Montreal General Hospital with strangulated omental hernia. He died eighteen hours after the operation, and extensive tubercular peritonitis of the fibrous variety was found. He also quotes a case of a girl, aged 18, who was admitted into the hospital with severe typhoid fever, of which she died. She had the usual symptoms of typhoid. The post mortem showed, in addition to characteristic typhoid lesions, an extensive tubercular peritonitis, which had taken its start from the fallopian tubes In another case, a healthy-looking child of five died of diphtheria, after an illness of a few days. An acute miliary tuberculosis existed over the entire peritoneum, which contained a slight amount of serous and much fibrinous exudation. There were tubercles in the spleen, but none in the lungs.

The literature is full of cases of this kind, showing that, in many instances, the disease may be latent and that the process may go on to healing without having produced serious symptoms. On the other hand, the onset of the symptoms may be sudden, even so much so, as to be mistaken for enteritis or hernia. A remarkable instance, in which it was mistaken for the last-mentioned disease, is reported by Thoman. A wellnourished woman, aged 30, was suddenly seized with pain in the abdomen, vomiting and fever. The physician who saw her believed the symptoms due to hernia, which he thought he found and reduced. The condition continued, and in the evening Thoman was called in. No hernia was found externally, but as the abdomen was distended and painful it was decided to operate. The inguinal ring was found closed. In the further course of the disease, the peritonitis became more marked, the ascites increased, and death occurred on the fourteenth day. The post mortem showed extensive tuberculosis, both layers of the peritoneum being covered with a recent eruption. There were no tubercles in the lungs or pleura. Spillman quotes another instance, in which the symptoms were so urgent and deceptive that internal strangulation was suspected. Most case of tuberculosis peritonitis are due to extension of the disease

from some adjacent organ.

The history of the case which I wish to report is briefly as follows: Sarah K., aged 26, sent into the General Hospital under my care, June 27th, 1900. She had always been healthy and was doing heavy work at service until five weeks ago, when she was suddenly taken with pain in the abdomen and vomiting. Dr. G. W. Hall, of Little Britain, who was called in, found her temperature 102, pulse 110, and great tenderness and rigidity all over the abdomen. During these five weeks her temperature kept between 101 and 102, and her abdomen rapidly filled with fluid. On examination I found the abdomen greatly distended, with well marked ascites. Nothing could be felt through the abdominal wall, as it was so very hard and tense. There was no evidence of disease in the lungs, pleura, kidneys or bladder. Per vaginam, the uterus was found fixed, and on either side of it an indefinite feeling of fulness was all that could be made out. My diagnosis was tubercular peritonitis or malignant disease.

On opening the abdomen it was found filled with a dark greenish fluid, and several quarts were removed. The peritoneum was greatly thickened and injected, but smooth, no small tubercles being seen or felt. The tubes were much enlarged, each being about the size of a small banana, the peritoneal surface red and soft, and looked like granulation tissue. Masses of lymph were present throughout the peritoneal cavity. The tubes were removed and the abdomen closed. She recovered from the operation and returned home in four weeks time, somewhat improved in health. I have heard from her recently, and she is in about the same condition as when she left the hospital, nearly five months ago. So that I think, although she was not cured, her life has been

somewhat prolonged by the operation.

The tubes were kindly examined by Dr. Wm. Goldie, who gives me the following report: "The disease is of a tuberculous character, affecting the mucous membrane of tubes as well as the peritoneum. The peritoneum is greatly thickened, due to the formation of tubercles in the lower layers, but the thickening is chiefly due to a very large exudation of a fibrinous and serous character. By this exudation the outer layers of the peritoneum were distended to a remarkable degree, lifting the endothelial layer to such an extent that the nodules could not be felt. The tubercles are numerous and have mostly advanced to cascation, although many giant cells can be found. The bacillus tuberculosis can be found frequently, but only in the giant cells. The state of the mucous membrane of the tubes would lead one to suppose that here or in the uterus lay the primary focus. The tubercles are more advanced and there are ulcerations, these latter, however, do not show any nodules at edges or base, only a diffuse proliferation of connective tissue cells and infiltration with leucocytes. The whole process has

the appearance of being very acute."

Now, a few words as to the treatment of tubercular peritoni-Coeliotomy offers the best hopes for relieving the condition and in many cases effecting a cure. Treves (British Medical Journal, October 31, 1896) reports 300 cases treated by abdominal section, which show that excellent results have been obtained in almost all grades of the disease, and that good prospects of a cure may be expected in sixty per cent. of cases. He has obtained the best results in those cases in which the abdomen has been neither flushed nor drained, but when the fluid has been simply evacuated and the abdominal wound closed. He says great care should be taken to avoid injuring the peritoneum, and it is much better to allow a few ounces of harmless effusion to remain than to remove it by reckless flushing and sponging. Some have used sterilized air with considerable success, basing this treatment upon the fact that the introduction of air during laparotomy was the main factor in the good results obtained. Any tuberculous foci, as diseased tubes, also enlarged lymphatic glands, should be removed.

König says that laparotomy will cure one-fourth of all cases. He says that the chief elements of success appear to be the employment of not too small an incision, and the thorough evacuation of fluid and the removal of tubercular masses and organs. His experience showed that more cases healed without antiseptic lavage. Lindner collected 205 cases operated upon, of whom fifteen died, mostly from collapse after long opera-In women, the genital organs were most commonly the Treves says that in regard to the indicaavenues of infection. tions for operation, in the ascitic type, the very acute cases, or those forming part of acute general miliary tuberculosis, are not to be operated upon. I must take exception to this statement of Treves. The case which I have just reported was of a most acute form, and she was very much relieved by the operation. and I think her life prolonged. Again, in acute general miliary tuberculosis, where the patient is suffering from great difficulty in breathing, owing to pressure of fluid upon the diaphragm, I certainly think it wise to evacuate the fluid. I have had two cases of this kind, in which I opened the abdomen with cocain and evacuated the fluid, and gave the patient a great deal of comfort afterwards. Abbe, of New York, says that it is an imperative duty of the surgeon to freely evacuate, by incision, all fluid of a tubercular peritonitis. Additional perfection may be obtained by irrigation with normal salt solution. The purulent form of peritonitis is amenable to the same treatment. Cure has frequently followed a second laparotomy when the ascites has reaccumulated, which is the exception. I would like to mention a case which developed characteristically of appendicitis, and upon whom I operated on the fourth day of her illness and found a tubercular peritonitis, with a small quantity of fluid in the peritoneal cavity. Her appendix was enlarged and thickened, but unfortunately no microscopic examination was made, and I cannot say if the primary tubercular focus was in the appendix, although I suspected it. The peritoneum, covering the appendix, was filled with nodules in common with the rest of the intestines.

She made a good recovery, her temperature and pulse both becoming normal in the course of four weeks, and the last I heard of her, six months after, she was quite well.

The tubes were presented, together with microscopic specimens, showing caseous nodules, giant cells and tubercle bacilli.

Clinical Note.

TRAUMATIC PARALYSIS OF THE RIGHT RECURRENT LARYNGEAL NERVE.*

BY DR. H. E. TREMAYNE, LAMBTON MILLS.

I beg to bring to your consideration to-night, a case of what I have called traumatic paralysis of the right recurrent larny-geal nerve, and at the same time I take the liberty of asking your opinion, both in regard to the origin of the trouble, whether

traumatic or no, and also in regard to prognosis.

The patient, A. M., aged 15 years; born in Canada; looks undernourished and emaciated; breathes audibly through mouth; pupils somewhat dilated; thyroid gland enlarged (since accident); somewhat short of breath (since accident). He had diphtheria when seven years of age and had some laryngeal paralysis following, from which he entirely recovered. Has had tonsilitis, and a year or so ago he states had pains in legs, for which a physician was called; possibly may have been rheumatism. A year ago he had typhoid fever in the Sick Children's Hospital. Has always been troubled with a cough in winter. About ten weeks ago, while he was going up on a lift, he was lying on the floor looking downward; on reaching the floor above his neck was jammed between the floor and the elevator. I saw him a few minutes afterwards: he was much frightened and complained of very severe pain on the slightest movement of his neck. His voice was very hoarse. There appeared to be a slight puffiness at the root of the right sterno-mastoid. The skin was not broken anywhere. He was sent home, and was back at work in the course of a week or so. I did not see him again till about a week ago, when he complained of cough, which caused him to vomit up his food. I then again noticed the character of his voice. He stated that his neck was sore for a few days, and that he had some difficulty in swallowing. Heart is normal; the lungs show vocal resonance increased on right side (infraclavicular); expansior slightly lessened; flatulency, tongue coated and teeth indented; hearing is very poor; can't hear watch on contact in either ear; states he can hear the machinery running where he works; has had deafness as long as he can remember. On examining the throat I found the pharynx and naso-pharynx inflamed; tonsils inflamed; general catarrhal condition all through; uvula elongated.

Laryngeal examination, very kindly made by Dr. Wishart, showed right cord immovable.

^{*}Reported to Toronto Clinical Society.

Selected Article.

THE EFFECT OF SMALL DOSES OF ALCOHOL ON THE BRAIN.*

BY VICTOR HORSLEY, F.R.S., Surgeon to University College Hospital, London.

SELECTIVE ACTION OF ALCOHOL.

Mr. Horsley said that it was his duty to present to them, from the scientific standpoint, a plain statement of the present state of knowledge as to the effect produced on the brain by small doses of alcohol. It probably was not generally known that all drugs had a selective action on the organs and tissues of the body, that is to say, they affected by reason of their chemical affinity some organs or parts of organs and spared others, and this was particularly true of alcohol. As Professor Ehrlich had pointed out, it was merely a question of chemical They must, therefore, first familiarize themselves with the various elements of the nervous system, which investigation had shown to be the commonest point of attack. The speaker proceeded to give a rapid survey of the central nervous system, illustrating the subject by means of lantern slides. In considering the effect of small quantities of alcohol on the central nervous system it was necessary to discuss its effect on ideation, that is, the intellectual thinking apparatus, next on the voluntary action apparatus, and then on the cerebellar apparatus for the regulation of movement and equilibra-The activity of the highest psychical centres of the brain was estimated in various ways. The activity of the brain in executing the decision of a thought arising from the stimulation of a special sense centre could be estimated either by measuring the time the brain took to do some small task allotted to it, first in the natural state and secondly when under the influence of alcohol, or by estimating the amount of work done in a given time.

INCREASED REACTION TIMES.

The time occupied by the nervous system in observing and recording the simplest thing was called "the reaction time," and was so appreciable that in all minute and accurate records astronomers had to measure their reaction period, and to account for it. The lecturer then demonstrated by an experi-

ment the method of measuring the reaction time. This plan in all forms and varieties had been very largely employed by Professor Kraepelin, whose investigations had been so thorough and complete that they explained the somewhat contradictory results obtained by Warren and other observers, and had established on a thoroughly scientific basis the direct influence of alcohol on the higher centres of the brain. The effect was that very speedily after taking the dose of alcohol the reaction time was shortened, but this shortening, that is to say, this apparent quickening of the cerebral act, lasted only a few minutes, and then marked slowing set in, and for the rest of the time during which the alcohol acted, varying from two to four hours according to the individual, the cerebral activity was diminished. The diminution was shown by a noteworthy lengthening of the reaction period—in other words, it took longer for a person who had had a small quantity of alcohol to think.

SLOWING OF OTHER MENTAL PROCESSES.

A further method employed by Kraepelin was to estimate the ability with which the addition of simple numbers was carried out, and also the learning by memory of twelve places of figures, and in all these tests the slowing of intellectual vigor was shown. In regard to the occasional acceleration observed at the commencement in some experiments, Kraepelin made the remarkable personal observation that during this period of acceleration, that is during the first few minutes after taking a dose of alcohol, he had the subjective sensation that it was much easier to learn the figures, but when he came to examine the records he found that so far from having achieved his intellectual task more easily, it had, as a matter of fact, been accomplished more slowly. This observation was confirmed also by two other investigators in the same laboratory on whom a similar experiment was performed. This was a striking instance of the deceptive effects of alcohol on the higher intellectual centres of the brain. This deception was not, of course, limited to alcohol, for one of the common subjective sensations of small doses of the ordinary anesthetics was that a person possessed great muscular strength and had a sensation of making powerful efforts which were in fact not in any way extraordinary. In this connection the lecturer exhibited, by means of lantern slides, a record of an experiment which he had made upon himself with nitrous oxide, to show how easily an elementary intellectual operation could be blotted The experiment consisted in writing threes in two rows, the figures alternating in position, and while these were being written at regular intervals the nitrous oxide was quickly

respired so as to produce complete unconsciousness for a few seconds, and then during recovery of consciousness an assistant urged him (Mr. Horsley) to resume writing. The slight extra intellectual addition of writing the figures in alternate rows had been blotted out by the very slight and fleeting poisoning of the cortical centres by the laughing gas, with the consequence that the figures were written in one line. The effect of a poison like alcohol on the cerebral centres for voluntary action was readily estimated; some voluntary muscular act was selected, and the amount of force evolved by the sensory motor cortex and exhibited by the muscular contraction measured. The simplest experiment of the kind was one described by Kraepelin, in which he measured on himself and a colleague the force with which they could grasp the dynamometer at regular intervals during the hour or more that the experiment lasted. The result of the experiment was to show that though there might be at first a slight increase of the work put out, very soon a constant and marked failure in the work occurred. An interesting parallel series of experiments was made by the same observers under the influence of tea, the effect of which was to improve the output of the physical work for a long time, and to avert to a certain degree the fall due to natural fatigue. Kraepelin had pointed out that though the primary accelerating effect of small doses of alcohol was frequently observed in simple reaction experiments, and in the experiments on the volitionary motor centres, it was not ound in his complicated thought-measuring experiments. In these only the hampering influence was shown. It was clear, therefore, that there was something peculiar about this apparent stimulation of the nervous centres by alcohol, and the explanation might be that the first toxic effect of alcohol on nerve centres was the quicker liberation of motor impulses. Numerous investigators—Aikin amongst others—who had studied this point had suggested—and indeed the greatest Continental authority, Professor Bunge, had taught—that the action of the drug was from the very first an inhibitory or paralyzing one. The primary accelerating stage, therefore, when it was observed, might in accordance with these views be considered to be due to the inhibition of the higher centres or the controlling apparatus which was known to exist in relation with motor centres; in fact, to use an ordinary analogy, every one recognized that directly the governor of an engine was prevented from acting the machinery at once tended to race and to work irregularly. Aschaffenburg had made a very careful series of observations on the dietetic use of alcohol in connection with skilled volitionary work. It occurred to this investigator to experiment on certain compositors who

had offered themselves for the research at his suggestion. They were skilled artisans, three of whom were accustomed to drinking small quantities of alcohol and the fourth occasionally drank to excess. Small intervals of time were taken and the total number of letters composed was observed under normal circumstances from which the necessary averages and observations of fatigue effects were obtained. The relative number of letters set up in the second, third and fourth quarters of an hour after the commencement of the experiment showed that the maximal difference and chief inhibitory effect of the alcohol was most apparent during the second quarter of an hour, and remained obvious until towards the end of the experiment, when the effects were passing off. The disadvantageous effect of alcohol on persons performing muscular work was well known, and it had been proved from the records of military expeditions that the best physical results were obtained under total abstinence from alcohol. The evidence, therefore, was overwhelming that alcohol in small amounts had a most deleterious effect on voluntary muscular work.

INFLUENCE OF THE CEREBELLUM ON THE REGULATION OF MOVEMENT AND EQUILIBRATION.

The cerebellum was intimately connected with the cerebrum, and it was known that injury to it was necessarily followed by the loss of the regulation and control of movements, which was especially true of the muscles of the lower limbs. The legs were most particularly associated with the cerebellum, and co-ordination in standing and walking depended on the normal action of the cerebellum. One of the further effects of alcohol taken in slightly larger doses was to destroy this special function of the cerebellum, and to produce a sensation of tremor and weakness in the lower limbs, so that the individual staggered slightly, and standing became a matter of difficulty. Anyone who had observed slight alcoholic poisoning, and compared it with the disordered equilibrium of a certain degree of disease of the cerebellum, could not fail to note the close similarity of the two conditions, or hesitate to accept the view that alcohol particularly poisoned the cerebellum. According to the recent researches of Dr. Risien Russell, the cerebellum played a part also under normal circumstances of damping the tremor accompanying the discharge of energy from a nerve centre. Hence in alcoholic poisoning the exaggeration of the natural intermittent discharge of the nerve centres producing tremor might be due in part to the loss of cerebellar-controlling influence, as well as to the affection of the cortical portions of the cerebrum. In regard to the structural changes produced

in nerve corpuscles by small doses of alcohol, it had to be remembered that with existing means of investigation it was not possible to demonstrate such changes. The vital processes of the body were so delicate that it was not possible to show any change in the protoplasm of the nerve corpuscles corresponding to the physiological alterations referred to as produced by small doses of alcohol. It was, therefore, worth while to show the destructive effects produced by the continued use of alcohol. The lecturer then demonstrated by means of lantern slides the disappearance under the influence of alcohol of the granular masses in the Purkinje nerve corpuscles, and how the protoplasm of the body of the corpuscle lost its characteristic structure and the nucleus became altered in shape. The toxic influence of chronic alcoholism on the pyramidal cells was also demonstrated in a similar manner, and the effect of alcoholic poisoning on the normal pigmentation in nerve cells was illustrated by a slide representing degenerated nerve cells, from the Archives of Neurology, edited by Dr. Mott, and published under the auspices of the London County Mr. Horsley concluded his lecture by stating that from a scientific standpoint the contention so often put before them that small doses of alcohol, such as people took at meals, had practically no deleterious effect could not be maintained. He had only touched on a very small part of the subject, but if they considered the observations of Parkes on physical work, of Ridge on small doses of alcohol on vegetable protoplasm, and of Abbott and others on the influence of alcohol in rendering animals more prone to microbic invasion, they could only come to the one conclusion—that from a scientific standpoint total abstinence must be their course if they were to follow the plain teaching of truth and common sense.

Society Reports.

TORONTO CLINICAL SOCIETY.

The adjourned meeting of the Toronto Clinical Society was held in St. George's Hall on the evening of the 14th of November, the President, Dr. W. H. B. Aikins, in the chair.

A Case of Post-Hemiplegic Motor Aphasia, with Exhibition of Patient.

Dr. W. H. Pepler: The condition occurred in a man aged 43, who complained of intermittent attacks of aphasia following right hemiplegia. The family history was particularly free from nervous diseases. The patient has always enjoyed good health until 1891, when he was suddenly attacked with severe headaches lasting for a couple of weeks, followed by weakness of right arm and leg, and difficulty in speech. There was no paralysis of facial muscles, and no loss of consciousness. In a couple of days he improved, and in a week he was able to work and use his arm a little. Speech also gradually improved. He returned to work in a month's time, and remained well for two years, when he had another attack. At that time he remained in the hospital three weeks perfectly insensible. At the end of that time he regained consciousness and left. There was no paralysis at that attack. Following that, about six months after, he had a series of attacks of temporary insanity, lasting from two days to two weeks at a time, and six to eight months lapsing between the attacks. For the last two years these seizures have altered in character, being ushered in with fulness in the right frontal region. During these attacks he cannot speak voluntarily nor answer any questions. He cannot repeat words, and cannot read aloud nor write. objects and people. In most of the attacks he uses "dead prepositions," i.e., oaths and unintelligible gibberish. He has tried to continue his work during these attacks. These attacks are very frequent, varying from one to eight in twenty-four hours, and lasting a minute or less. If attacked during the night they always waken him up. The patient is of good muscular development, although the general expression of face is somewhat dull. Hearing is acute and vision good. The patellar reflex is slightly exaggerated; pupils re-act well. There is no paralysis remaining now, but there is slight rigidity of right leg. Walking is defective. He cannot turn round

quickly with ease. The urine is normal in quality and quantity. The patient has been taking iodide of potash, and is now taking a drachm three times a day. No doubt the case was either originally a hemorrhage or a thrombus into the first or second branches of the middle cerebral, with serious injury to the posterior part of the third frontal convolution.

Dr. Meyers, in discussing the case, thought he would be inclined to class it with pure motor aphasia, or it probably

might be a form of petit mal.

Traumatic Paralysis of the Right Recurrent Laryngeal Nerve.

Dr. H. E. Tremayne, Lambton Mills, who was present by invitation, read the report of this case, and presented the

patient, a boy, aged 15. (See page 662.)

Dr. Ryerson examined the patient, and said that the whole of that side of the larynx was immovable, and that there was complete paralysis, but the arytenoid on that side moves. He instanced a similar case in a South African soldier who was shot through the neck, in whom it was a matter of wonder how it had escaped the arteries.

Dr. Peters said that the presentation of this case recalled one he had seen with Dr. Thistle, a case of exophthalmic goitre, with a large cyst situated on the right side and close to the nerve. The paralysis which followed after operation for removal of the cyst was probably the result of scar tissue pressing upon the nerve fibres, although it was not complete paralysis.

Tubercular Disease of the Tubes, with Acute Peritoneal Infection.

By Dr. H. A. Bruce. (See page 657.)

Dr. Primrose spoke about the permanency of cure. He had observed in his own experience that not infrequently that symptoms recurred even after prolonged intervals. He thought that very frequently the cures were not permanent.

Dr. W. B. Thistle emphasized the necessity of giving larger doses of creosote in both surgical and medical cases of tuberculosis. He thought the surgeons particularly neglected this branch of the treatment. If larger doses, say from 30 to 40 minims three times a day, were employed, he thought there would be more permanency to the cures. His method of administering these large doses was in capsule form with bismuth. In support of this he quoted from an article in the British Medical Journal, where drachm doses of creosote had been given three times a day, and also where several patients had taken 100 minims three times a day.

(a) Alopecia Universalis; (b) Ataxic Paraplegia.

Dr. Graham Chambers presented both patients, and read

notes of the respective cases.

Alopecia Universalis.—The patient was a female aged 20. She said that her hair began to fall out in patches when she was five years of age. From this first attack she completely recovered. At the age of twelve she again began to become bald in patches, and since that date has never been free from the disease. The patient was admitted to St. Michael's Hospital in March, 1898. At that date the lesions had the appearance of those of common form of alopecia areata. She was treated by local application of chrysarobin, triresel, carbolic acid, etc., and tonics internally. The condition of her scalp improved for two or three months, but it then gradually grew worse. The hair fell out, not only from the scalp, but also from the eyelids, eyebrows and from all parts of the body surface, and she is at the present time devoid of hair, except two hairs on the anterior part of the scalp. While in the hospital in 1898 she was

treated by Dr. Roseburgh for interstitial kerstitis.

A Case of Ataxic Paraplegia.—A young girl, aged 17, was admitted to St. Michael's Hospital on June 1st, 1900. Family history negative, except that her only sister when fifteen years of age had curvature of the spine, from which she completely recovered. Patient had measles when five years of age. Menstruation commenced at the age of fourteen, but since has been very irregular. In March last, the cellar of the house where patient worked was flooded with water, and she, not knowing that she was menstruating, took off her shoes and stockings and waded through the water, which came up to her knees. Two days after she complained of feeling tired and that her left leg felt so heavy that she could scarcely lift it. About a month after the disease extended to the right leg, and it was about this date when the patient was first examined by Dr. Chambers. She then complained of numbness and heaviness in the legs, but suffered no pain in the legs or back. Patellar jerk is increased. Both ankle clenus and knee clenus present in the left leg; tibial reflex present. Remberg's sign is present, and patient complained that she had to support herself against the wall while washing her face. Since that date the patient has become gradually worse, and sensory symptoms have developed. Patient cannot distinguish hot from cold on the plantar surfaces of the feet and on the sides of the ankle joints. Several patches of the skin between the ankles and the knees are Sense of locality is disturbed; field of vision normal in both eyes; pupils react to light; retina and optic nerve healthy. The sphincters of the bladder and rectum normal. Patient is now unable to walk without aid.

Dr. Thistle discussed the latter case and concurred in the diagnosis of Dr. Chambers. In the case of alopecia he thought that the loss of the eyebrows meant syphilis.

Dr. Meyers also discussed the latter case.

Dr. Leslie spoke of a similar case of alopecia, where a girl was quite bald for a year and a half. Her hair has come back better than before.

Hydatid Cyst of the Pancreas.

Dr. George A. Peters reported this case, which occurred in the practice of Dr. McKinnon, of Guelph, and upon which Dr. Peters was asked to operate. It occurred in a young man, Spanish by birth, a resident of the Argentine Republic, who in May of 1900 came under the care of Dr. McKinnon. For two or three years the patient has suffered from attacks of pain obscurely located in the stomach and bowels, and latterly had his appendix removed, at which time a tumor could be felt in the left hypochondriac region, which at times was the seat of great pain. The cyst was aspirated and thirty ounces of a limpid fluid of sp. gr. 1.13 withdrawn. Much relief was experienced, but the cyst slowly filled, and the temperature and pulse showing that a septic process was proceeding, it was decided to operate. On examination a rounded tumor could be felt below the ribs on the left side, about midway between nipple and sternal lines. Its relation to the pancreas was determined by the stomach resonance above the tumor, and between it and the liver as well. Between the spleen, kidney and tumor resonance was also present. The operation was done from behind, the incision being made along the margin of the erecter spinæ three inches long. Considerable difficulty was experienced in its removal owing to the toughness of the walls. An examination of the fluid shows numerous daughter cysts, with their attached embryos as well as many separate hooklets. The specimens were exhibited by Dr. Peters, and the hooklets were well seen under the microscope. A search of the literature so far by Dr. Peters reveals no other reported case of hydatid cyst of the pancreas.

In discussing the case, Dr. Bruce thought that it might possibly have been connected with the liver, as these are extremely common.

Replying to this, Dr. Peters stated that stomach resonance was distinctly to be made out all along the line between the liver and this tumor, and such being the case, he could not see how any one could make it out to be a tumor of the left lobe of the liver.

GEORGE ELLIOTT.

Progress of Medical Science.

OPHTHALMOLOGY AND OTOLOGY.

. IN CHARGE OF G. STERLING RYERSON, J. T. DUNCAN AND J. O. ORR.

Foreign Bodies in the Eye.

In the Medical Age, September 25th, is a useful paper on this subject by L. W. Flanders. He remarks that when a man gets something in his eye, he usually either tries to dust it out by flapping at it with a silk handkerchief, or searches in the depths of his vest pocket for his "eye stone," which, having found, he gravely puts it in vinegar until it "crawls," then transfers it to his eye as a "chaser." When the stone has thoroughly ploughed up the conjunctiva, he goes to the family physician, who usually "scrapes" the speck off the cornea. Flanders says, "Don't scrape."

To determine the presence of a foreign body, directions are given to place the patient before a window and let him roll the eye slowly from side to side. Watch the shining reflection of the window-pane upon the cornea; if there is a break in the

continuity you will see it.

Method No. 2.—If the first method fails, take the patient into a dark room, and, with a lens of about two inches focal distance, condense the light from a lamp upon the cornea, which will bring the speck into view. If you are satisfied the foreign substance is not on the ball, turn the lids and search them carefully. If on the cornea, instil a few drops of a four per cent. cocain solution and wait till the cornea is anesthetized.

As to instruments, don't use a speculum, but steady the eyeball by the first and second fingers of the left hand, first getting him to roll his eye about slowly, till the body is in view. Tell him to look steadily at an object in that direction. Having your knife already sterilized (a small tenotomy knife will do), insert the point of the knife carefully under the foreign substance, and lift it off the epithelium. If it is a particle of steel, etc., embedded in the corneal layers, remember that its direction is probably upwards, therefore make your traction downward. In regard to gunpowder, the explosion of a fire-cracker often causes the embedding of a few grains of powder in the cornea, as well as in the face. In the face, vigorous scrubbing by a nail-brush will get it out usually very well, but in the cornea, each grain must be carefully picked out. It is a difficult piece of work, and here we may be forgiven if we scrape a very little. A small scoop is a very useful instrument in these cases.

If a traumatism has been severe, it is always well to instil a drop of atropin into the eye before sending the patient away, and apply a bandage.

The Ophthalmic History of an English School.

S. Stephenson (Archives of Ophthalmology) has an exhaustive article on the Hanwell (London) School, with especial reference to outbreaks of ophthalmia among the children there. This school is one of the "district schools" of London, where pauper children are lodged, fed and taught. The school is near London; it stands on a site of one hundred acres, and was built (in 1856) to receive 1,200 children.

As ophthalmia, which was supposed to be contagious, was prevalent at various times among these children, various specialists were called to report upon the matter. One of these (Mr. Haynes Walton, in 1861) found nearly two hundred cases of the malady. He expressed the opinion that it was not contagious, but was due to "excessive ventilation." This curious conclusion was shown by the Board to be ridiculous, as the boys and girls in the school had the same ventilation,

yet the boys only suffered.

In 1862 many eyes were destroyed by ophthalmia. The patients were not isolated, and, it is stated, used to wash their eyes in pails of lotion, using their hands for the purpose. Again expert assistance was called. Mr. Bowman employed five outside doctors to help the resident staff, and the outbreak was controlled. Other outbreaks occurred, and other specialists were called in to report, among whom was Mr. Nettleship. He reported that 44.1 per cent. of the children were suffering from "bad granular lids." He made certain recommendations which the school authorities, partly from fear of the expense of the improvements, did not carry out. In 1889, however, the condition of the children's eyes being so bad, public opinion forced the school managers to act.

The first thing that was done was to cut four open spaces through the frontage of the school; the next to build a special hospital for ophthalmic patients, near the main building. This cost \$150,000. Then the children were carefully inspected periodically, and if any sign of ophthalmia was discovered, they were removed to the hospital. The result is that, for the last ten years, there have been but two small outbreaks of the disease, one of twenty-five cases, the other of twenty-one. Stephenson, under whose care these improvements have been carried out, and who has been in charge of the school for ten years, remarks, "The one great lesson which this history enforces, is that trachoma, no matter of what standing or severity, may be stamped out of existence by proper measures."

J. T. D.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES F. W. ROSS, ALBERT A. MACDONALD, H. C. SCADDING AND K. C. MCLLWRAITH.

The Prevention and Treatment of Postpartum Hemorrhage.

The discussion in the section of Obstetrics and Gynecology, at the meeting of the British Medical Association in Ipswich last August, was introduced by Dr. Byers, of Belfast, with a paper on the above subject. The paper is given in full in the American Journal of Obstetrics for October. Under the head of prophylaxis to be adopted in all cases, great stress is laid on two points:

The proper management of the third stage.
 Never deliver in the absence of pains.

The first head, the chief thing mentioned, is that which is emphasized so strongly in the Rotunda teaching. Never take the hand off the fundus until the uterus is firmly contracted and the binder applied up to the hand.

The treatment advocated for hemorrhage from relaxed uterus embraces the following measures, which are resorted to in the

order named:

External uterine massage.

2. Irrigation of the uterus with hot saline solution.

3. Introduction of hand into uterus.

4. In case of failure of the first three, bi-manual compression of the uterus.

Gauze plugging of the uterus.

6. Drawing downwards of the uterus.

7. Injection of iron—mentioned only to be rejected.

If the hemorrhage comes from lacerations of the genital tract, it is recommended to stitch if you can, and to plug if you can't.

K. C. M.

Curage; Two Advantages It Possesses Over Curettage.

A paper on the above subject was read by Frank A. Stahl, M.D., before the Chicago Gynecological Society last June, and the paper and the discussion to which it gave rise are reported in the October number of the American Gynecological and Obstetrical Journal.

The advantages which the author mentions are:

1. The superior advantage of the finger in recognizing

foreign bodies.

2. The superior shelling out intact of the secundines. Advantage of the finger, instead of the usual morselling by the curette and forceps.

The following additional points were referred to by others during the discussion:

3. Danger of perforation with the curette.

4. The finger can determine the exact location of the secundines, and we naturally curette the part to which the secundines are attached; whereas when we use the curette we are apt to curette the whole mucosa, which in septic cases is dangerous, and in non-septic cases uncalled for.

Of the seven gentlemen who discussed the paper, only one favored the curette.

K. C. M.

Obstetrics in Paris.

The October number of Obstetrics has a long article by a Russian physician, Dr. Ratchinsky, entitled "Obstetrics in Paris." The account is a most interesting one to us from an economic as well as from a professional standpoint. For many years the low birth rate of France has been considered a menace to her. In Britain, too, rumors of a similar evil have been heard; and Government statistics in our own land have not been reassuring on this point. That the Parisian mind is fully alive to the dangers of the situation is evidenced by the care taken of parturient women. Let us quote from Dr. Ratchinsky:

"An advantage of the Parisian institutions, as compared to our own (St. Petersburg), lies in the fact that they receive women, not immediately before labor, but also in the eighth or ninth month of pregnancy; and in the case of abnormal pelvis, even in the first half of pregnancy. The solicitude concerning the welfare of the pregnant woman is so great in Paris that there are even special institutions for pregnant women, such as Pauline Roland. Here the pregnant woman and her children, if any, are received. She is not compelled to work, and may remain in the asylum until the eighth month, when she is transferred to the Institution Michelet, where she lives until labor sets in. In addition, there is a special asylum for puerperal women, Ledrue Rollin, in which they may live two weeks and recuperate after labor. Thus the pregnant woman, the paturient woman, and the puerperal voman are fully provided with means of existence and medical attendance.

"The newly-born infants are similarly taken care of in Paris. In 1892, Budin and Chavaue established in the maternity department of Charité, a weekly out-patient inspection of all children born in the hospital, and in case of need the infants were supplied with sterilized milk daily. When the mother is discharged from the hospital, the infant gets a card admitting the child to the weekly inspection by a physician of the instition, and in case of need, entiting it to receive a daily quantity of sterilized milk, free of charge, or for a nominal price. In

the Charité, the mortality among the inspected children is 7.3 per cent., while the mortality at the same ages in Paris as a whole is 21 per cent. Among the inspected children, death due to diarrheal diseases almost never occurs, while these affections are the most frequent cause of death among the children of the city. Great value is attributed to the feeding with milk that has been sterlized at 100° C. on the water bath. In another institution the mortality from diarrheal diseases among children has been reduced from 6.8 to 1.28 per cent."

A full account is given of obstetrical teaching in Paris, both undergraduate and post-graduate. In the former course, didactic lectures are given, combined with demonstrations, and special prominence is given to the practical aspect of the subject. Microscopic and macroscopic preparations, phantoms and manikins, wax models, instruments, charts, etc., are all used, and then, after passing an examination, the student is admitted to the clinic. The student probably very rarely has an opportunity to perform operations on the living subject.

Many of the points which Dr. Ratchinsky describes as new to Russia, e.g., Tariner's axis-traction forceps, are not new to us, from which we are led to infer that our obstetricians are abreast

of the times.

The paper concludes with a reference to the use of antistreptococcus and antistaphylococcus serums at Pinard's clinic. The author states that they are used extensively in puerperal affections, and as a prophylactic even in every woman who enters the clinic with ruptured membranes, if she has been examined outside per vaginam. The results of the use of these serums is still doubtful.

It is instructive to compare this account of the care taken of infants born in maternity hospitals in Paris with the state of things here. Reports, for example, which come back to the Burnside of the after-history of the children born there give an alarming mortality amongst the infants. The hospital authorities get as many of them placed in reputable institutions as possible, but only too many of them are given by their mothers into maternity homes or to people who know nothing of infant feeding, there to die of malnutrition, if not to be absolutely starved to death. We cannot help thinking that many valuable lives are annually lost to the state through this lack of care on its part.

K. C. M.

PEDIATRICS.

IN CHARGE OF ALLEN BAINES, W. J. GREIG, AND W. B. THISTLE.

Pathology of Rash of Scarlet Fever.

Schomberg (*Phila. Jour. Amer. Med. Asso.*, Nov. 10th, 1900) has a very interesting paper on the Pathology of the Rash of Scarlet Fever. The article is well illustrated and well worth studying. His inferences, drawn from the observations, are:

1. The color of the rash in scarlatina varies in different patients. Accurately speaking, it is never scarlet, and only at times bright red. More commonly it is dull red, with an appreciable element of brown.

2. That puncta, vesicles and goose-flesh papules are lesions

occurring with a considerable degree of constancy.

3. Vesicles are far more common in the rash of scarlet fever than is commonly supposed, being more profuse in intense eruptions, although they may be present in mild ones. The amount of desquamation is, as a rule, proportionate to the degree of vesiculation. Vesiculation may be so profuse as to lead to error in diagnosis.

4. Desquamation on the body begins as pin-point powdery scales at the summit of the dessicated vesicles. Irregular, jagged rings of desquamation then form, which enlarge until

the horny layer is completely shed.

5. Histologically, the rash of scarlet fever is a dermatitis, showing deep and extensive changes in the corium. The inflammation is greatest about the hair follicles, which are frequently disintegrated by a serous and cellular exudate. Vesicles have their seat either in the epidermis or in the walls of the hair follicles. The persistence of desquamation and of the infectivity of the scales is due to the depth of the pathological process in the skin.

Diagnosis of Rotheln from Measles and Scarlet Fever.

Koplik (Jour. Amer. Med. Asso., Nov. 10th, 1900), in a paper on the differentiation of Rötheln from measles and scarlatina, states that the crucial test in making a diagnosis of Rötheln in the majority of cases is the buccal mucous membrane. The spots described by the author as pathognomonic of measles are never seen. Rose-red spots are very occasionally seen, but never with the bluish-white centre as in measles. The membrane of the mouth is always of the normal pink hue in Rötheln. It is not a disease of the mucous membranes, and the coryza, cough and bronchitis are never seen, as they are even in the mild types of measles.

Diagnosis of Diphtheria.

Donkin (Brit. Med. Jour., Nov. 3rd. 1900) speaks on the present teaching as to the diagnosis of diphtheria. He thinks that all cases should be reported and treated as diphtheria where the clinical signs and symptoms are such as would have raised but little doubt as to the nature of the case in the days previous to the discovery of the bacillus. The diagnosis rests mainly for its surest foundation on the old ground of careful clinical observation, tempered and aided, it may be, by a judicial study of the bacteriological report.

Treatment of Pertussis.

Godson (Brit. Med. Jour.), on treatment of pertussis, summarizes the answers he received to a series of questions as to the drugs of most benefit in this disease. Inhalants are in general use, anti-spasmodics also, combined with expectorants. Antipyrin, belladonna, creasote, pomides and carbolic acid are the drugs mostly used, antipyrin being least popular. His own treatment is from the start continuous creasote inhalation. No anti-spasmodics if bronchitis is present. If broncho-pneumonia appears, belladonna appears to do good at once. In all cases where chest is clear and circulation good, antipyrin combined with expectorants.

Editorials.

It is a great pleasure to be able to report that Dr. Adam Wright, who has for so many years guided the editoral columns of this JOURNAL, is making good progress towards complete recovery from an attack of acute streptococcus infection, contracted some weeks ago when operating.

THE NERVOUS SYSTEM AND INFLUENZA.

Few subjects in practice to-day deserve more attention at the hands of the physician than the effects of the influenzal poison on the nervous system. This is specially true for two reasons, the prevalence of the disease and the frequency with which the nervous system becomes involved. That the nervous system suffers severely in attacks of influenza is shown by the headaches, neuralgic and muscular pains, deranged cardiac movements, pains in various parts of the abdomen, mental depression, delirium or active mania.

During the attack the brain is liable to be deranged in several ways. Along with the usual symptoms of influenza the patient becomes dull, drowsy and indifferent. It is difficult to arouse his attention, and he pays but little attention to his surroundings or to interrogations. He is very liable to become comatose, and a fatal termination is very common. As nothing special can be discovered by post mortem examination, the mischief must have been caused by a poison. Sometimes, however, a meningitis is found. On the other hand, there may be the reverse condition of restlessness and delirium. The poison in these cases acts as an excitent.

But apart from the disturbances that may occur in the nervous system during the attack of influenza, there are many serious sequels that often follow it. The brain may be so deranged as to cause neurasthenia, epilepsy, hysteria, mental derangements, embolism, hemorrhage, or encephalitis. In the cord there may be any form of myelitis or degeneration. In the nerves, neuralgia and neuritis are the most frequent forms of nerve disturbance. The bulbar region does not always

escape; and the internal and external muscles of the eye may suffer in a very irregular manner. Serious muscular atrophies may result from these nervous derangements.

It would appear that some of the derangements met with in the nervous system in connection with influenza are due to the toxin of the disease, others to the germ of the disease, while others to some inherent weakness of the nervous system. Thus neuritis, neuralgia, and neurasthenia are likely caused by the toxin; acute comatose conditions most likely are due to the direct action of the germs choking the cerebral capillaries; while insanity is likely due to a previous weak condition of the nervous system. The toxin of the Pfeiffer bacillus has a strongly selective influence for the medulla oblongata. The damaging effects of the toxin may range anywhere from mere. irritation to inflammation and degeneration.

The prognosis must be made very guardedly, as there may be, in any case, some permanent damage, where the brain, cord, or nerves have been involved during an attack of influenza, or at a later period as a sequel to it.

THE TREATMENT OF ARTERIO-SCLEROSIS.

In the whole range of medical practice, there are probably few conditions that are of more importance than the recognition and proper treatment of arterio-sclerosis. As is well known, it comes on at varying ages, and is much influenced by habits and occupation.

The hardening and contraction of the arterioles are often the earliest intimations of what in later years will be serious heart or kidney diseases, or an attack of apoplexy. No doubt this condition has not received the attention it merits. It is the duty of the medical adviser to note and point out tendencies towards certain diseases, as well as to recognize and treat diseases that may be actually present. Prevention is a much more valuable service to a patient than the treatment of his complaint after its advent.

It is now generally admitted that the rheumatic and gouty condition favors the occurrence of rigid arteries. Certain poisons, as lead and alcohol, have also a share in the etiology of this state; so also have those forms of life that give rise to overwork and overworry. But, perhaps, no cause stands out so prominently as wrong habits of diet. Jonathan Hutchinson has well remarked that there is no diathesis that is harder to fully establish than the gouty one; but when once established, there is none more difficult to get rid of, or more liable to have far-reaching effects upon the general health.

Setting aside the cases of arterio-sclerosis due to lead poisoning, overwork and worry, the majority of cases are of dietetic origin. The improper indulgence in foods and drinks is the fons et origo malorum. This being the case, what should be done?

In the first place, all persons with a tendency to rigid arteries should be prohibited alcoholic drinks. It is no longer necessary to argue this question. The patient must be cautioned against all forms of violent exercise or overwork; and, further, should be advised to arrange his affairs to have as little worry as possible. Butcher meats should be reduced; better still, cut off altogether. There is no fear of the patient starving. Enough animal and nitrogenous products can be obtained from milk and a little egg. In bread and many vegetables there are nitrogen-bearing compounds. The elimination from the dietary of alcoholics, meats, salmon, lobster, game, turkey, goose, duck, cheese, beans, the more highly nitrogenous foods, will, in time, relieve the system of those waste products that are instrumental in causing rigidity and contraction of the arterial system.

The emunctories should be kept active. The skin and kidneys should be made to do active duty. This can always be brought about by inducing the patient to drink plenty of water. Water once introduced into the system must come out somewhere, and its main channels of exit are the skin and the kidneys. There is no better solvent than water. It dilutes the bile and the urine, lessening the tendency in these cases to gallstones and renal calculi. It dilutes, and washes out of the system the compounds of uric acid that act so injuriously on the liver, kidneys and smaller arteries.

With regard to drugs there need not be much said. If the hygicnic and dietetic treatment be carefully observed, there will not be much need for drugs. One drug, however, deserves special mention. Potassium iodide is the drug of the arterial system. It need not be given in large doses. Two or three grains in water, after meals, will prove quite ample. It will act better and cause less annoyance to the patient if it is combined with an equal dose of carbonate of ammonia.

THE TREATMENT OF PNEUMONIA.

During the past fifty-five years the treatment of pneumonia has undergone several distinct phases, which afford interesting material for study. Sir Herman Weber has given this matter some attention, and relates the result of his personal experiences with the several methods of treatment, and of his investigations.

At the University of Bonn, from 1846 to 1849, the treatment was bleeding, with the internal administration of nitrate of potash and small doses of antimony, and fluid diet. The death rate was 12 per cent. for all cases.

During the year 1849 the disease was treated with large doses of antimony. As much as 4 to 10 grains of the nitrate was given daily to children, and 20 to 40 grains to adults. Under this treatment the death rate rose to 17 per cent. The antimony caused intestinal derangements and rendered the convalescence slow. This method of treatment was soon abandoned.

This plan of treatment was followed by the opium treatment. The opium was given in full doses, accompanied by some aperient. The death rate was the same as under the antimony treatment, or 17 per cent.

At a later period three sets of patients were treated differently for comparison. One group by moderate bleeding, one by salines, and one by nursing only. In the first two groups the mortality was 14 per cent and in the third a little under 13 per cent.

In the German Hospital in London from 1851 to 1854, the disease was treated by daily doses of 15 to 20 grains of quinine, with a mortality of 13 per cent.

From 1854 to 1861 the treatment was almost wholly by nursing, with attention to constipation, pain, and such like. The mortality rather over 13 per cent.

Then for a period of fourteen years the treatment was by nursing, supplemented by small doses of antimony with liquor ammonia acetatis, a wet pack for pleurisy, and opium for sleeplessness. The mortality was slightly lower than by the plan of nursing only, but the patients were more comfortable.

At a still later period, salicylates of soda became the favorite treatment. It was given in quantities ranging from 20 to 40 grains daily. The mortality was slightly above 13 per cent.

It will thus be seen that the mortality in pneumonia is practically the same under these different methods of treatment, except the two short periods when the antimony and opium treatment was pushed to excess. The lowest mortality has resulted from the cases treated by nursing, assisted by gentle means for the relief of fever, pain, constipation and sleeplessness.

AN URGENT NEED.

If one were to answer the question, What is the greatest abuse of the present day? it would be the indiscriminate taking of drugs as proprietary nostrums. The mischief that is constantly being done to the community by taking so much proprietary medicine is enormous. In the first place, the people are induced, by the wiles of the advertiser, to take some preparation, the composition of which he knows nothing about. In this way very harmful drugs may be introduced into their systems. In some cases, a dangerous craving may be acquired for the narcotics which enter into the composition of some of these nostrums. Persons are often taking drugs when they have no need for them. On the other hand, by the use of these drugs they are often laying the foundation for serious trouble.

In the next place, many persons take it upon themselves, by the aid of advertisements, to diagnose their own cases and prescribe for themselves according to the fancy that may strike them, as the result of the study of these advertisements. Wrong drugs are thus usually taken, and valuable time lost to the patient.

Another feature of the sale of medicines, as placed before the public by the nostrum vendor, is the claim of curative powers that do not exist in any drug, or combination of drugs. All

forms of heart disease are cured, no matter whether functional or organic. The kidneys in like manner are made to yield to the potency of some so-called cure. The granular contracted kidney once again assumes its normal shape, size and texture. The rigid arteries become soft and flexible; and the health is again restored to its former vigor. All the experience of the medical world is given the lie. The crumpled, broken-down heart valves, and the small, hardened kidneys are again compelled to do duty of perfect quality.

In all this we have the most monstrous fraud and deception. In some cases, ignorance, so far as the vendor is concerned, but in the majority of instances there is wilful deception for the love of gain. It is fraud of the most diabolical sort, and should not be tolerated for a single day. No man should be allowed to advertise a quality for his goods that they do not possess. It is a variety of confidence game, or practice, that invariably humbugs the buyer and fraudulently enriches the maker.

The law is now strict on the sale of poisons and certain noxious drugs; and yet, under the name of some proprietary article, bromides, chloral, opium, cocaine, alcohol, ergot, etc., can be obtained in any quantity. This is well within the knowledge of every physician. A female regulator is put upon the market. An analysis shows it to contain ergot, savin, aloes, iron, hellebore, cotton root, etc. Here you have an ideal abortifacient, as far as drugs are capable of accomplishing such work. Yet, if a physician gave a prescription for such a purpose, or introduced a sound, he would stand in the eyes of the law as a heinous criminal. But the proprietary medicine man can put such a compound upon the market, and in the advertisements suggest to the public what it is for, and nothing is done to him.

Here then is a crying evil. What is the remedy? One would be to prohibit the sale and advertising of proprietary medicines; but especially if they contain any of the drugs in the poison or noxious list. It may be some time before our legislators can be educated up to this standard. There then remains a partial remedy that should at once be put in force. The exact composition of every proprietary medicine should be printed in plain language on the wrappers. In this way the people could see for themselves that some greatly vaunted

medicine was only ditch water. Further, these nostrums could be ordered off the market if they contained noxious or poisonous drugs.

THE SMOKE BY-LAW.

When the world-renowned physiologist, the late Prof. Carpenter, visited Toronto some twenty years ago, he expressed his surprise and regret that the beauty and salubriousness of our city should be so imperilled by the volumes of smoke ascending from it. This condition has continued to be a source of regret and annoyance to many of our citizens who value resthetic and sanitary conditions. We have, therefore, been glad to see Ald. Dunn taking the question up with a view to a civic remedy. At the request of some of our manufacturers, its consideration has been laid over for four weeks. We trust that the manufacturers will show a sufficient amount of concern for the welfare of the city, as well as for their own immediate interests, to act in good faith and in earnest in searching out means to cope with the evil complained of.

We were given to understand, some time ago, by one of our most wealthy owners of tall chimneys, that careless firing had much to do with the emission of unconsumed smoke, and that if the live coals were shoved well to the back of the grate and fresh coal thrown in the front, and in small quantities, frequently repeated, the smoke would be, to a great extent, consumed.

We are also informed by a reliable gentleman, not engaged in the present action, that in Glasgow if a chimney is seen emitting black smoke for two or three minutes, the police report the fact, and proceedings are taken against the owners. Surely we ought to be able to keep our atmosphere as clear as that of Glasgow, and we are not ambitious to have a reputation for smoke, soot and catarrhal affections equal to that of Chicago or St. Louis. Our city has been richly favored by nature as a summer resort. Let us try to keep it increasingly beautiful and healthy.

VICTOR HORSLEY ON THE MODERATE USE OF ALCOHOL.— Men, and even well intentioned men, have been apt to allow their facts to be modified by their theories and their hobbies. We have endeavored to avoid lending our columns to perversions of scientific truth, even for a supposedly good object. We therefore feel that we can the more confidently draw attention to an epitome, reprinted from the British Medical Journal, of a paper recently read by Mr. Victor Horsley. The well known and habitual accuracy of Mr. Horsley as an investigator and experimenter, and his brilliant work in brain surgery, command our attention. What he has to say on any subject related to the physiology and pathology of the brain is certainly worthy of consideration.

NURSES GRADUATE.—Friday, November 16th, was a gala day in the history of the Training School for Nurses in connection with the Toronto General Hospital, when the new residence erected during the summer was thrown open for inspection after the graduating exercises had been completed, and many commendatory remarks were passed on the excellent arrangements made for the comfortable housing of the "ministering angel." At the graduating exercises thirteen nurses received certificates and badges, having completed their term of three years' training. After the presentation of certificates, the chairman, Mr. Walter S. Lee, congratulated the class on their examinations, and presented a prize, given by Dr. Charles O'Reilly, to Miss Martha Morton, of Holland Landing, she having obtained the highest number of marks at the final examination in 1900. This is the first time since the opening of the school, in 1881, that a prize has been given, and Dr. O'Reilly caused great satisfaction and was warmly applauded when he announced his intention of permanently instituting this prize annually for the nurse obtaining the highest number of marks in all subjects at the regular final examinations. prize chosen was most appropriate, being a large octavo volume of 1,000 pages, "In Sickness and in Health," by J. West Roosevelt, M.D., and contained the following inscription: "Presented to Martha Young Morton as an acknowledgment of merit and as a reward for the attainment of the highest marks at the final examinations of the 'Toronto General Hospital Training School for Nurses, 1900, by Charles O'Reilly, M.D., Medical Superintendent." As three hundred and seventeen nurses have obtained their certificates from the school, Miss Morton's friends naturally feel delighted that she has had the henor of having received the first prize awarded in the school. The examiners for 1900 were Drs. Adam Wright, Allan Baines and B. Nevitt. That the donor may live to see "the O'Reilly prize" earnestly competed for, for many years to come, is the wish of Dr. O'Reilly's numerous friends.

Correspondence.

ELIMINATIVE AND ANTISEPTIC TREATMENT OF TYPHOID FEVER.

To the Editor of the Canadian Practitioner and Review:

SIR,—In the reported proceedings of the Canadian Medical Association meeting, published in The Canadian Practitioner and Review, there appears, under the heading of "Eliminative and Antiseptic Treatment of Typhoid Fever," a brief abstract of my paper. I had in that paper protested against the misrepresentation I had received in certain quarters. Your reporter furnished an apt illustration of what I complained of, and in this short abstract has managed to distort and mis-state what I said, to an extraordinary degree. For example, I am reported in this abstract as holding "the opinion that the drainage from the intestinal wall, following upon the action of a purgative, such as calomel and magnesium sulphate, would tend to get rid of some of these bacilli in the intestinal walls, but would not effect their exit from the liver," etc.

I had in the first part of my paper quoted from the recently-published Gouldstonian Lectures, delivered before the Royal College of Physicians of London, by Dr. P. Horton-Smith, on "Typhoid Fever and the Typhoid Bacillus," to show the correctness of my contention of seven years ago, that the specific bacilli were present in the intestinal contents during the first days of the fever—not absent from the intestinal contents, as has been asserted—and consequently that the soundness of my theory of their being swept out by the action of purgatives, thus limiting the infection of the body and of the glands in the intestinal walls, became perfectly obvicus. Then followed the paragraph referred to, which I shall quote in its entirety:

"Elimination must not be confined to simply clearing out the intestine, but must apply to a much wider process; the clearing of poison from the body by way of the intestine, either in the toxic bile or contained in the serous fluid poured from the

intestinal wall.

"It is amusing, after having made so many explicit statements, and having drawn attention so many times to this feature, to find Prof. Osler gravely pointing out to his readers 'that, unlike cholera, the typhoid bacilli are not confined to the intestine, but are to be found in the spleen, intestinal glands, etc., and consequently that they cannot be dislodged by the use of purgatives.'

"I shall again be explicit in the statement that the eliminative

plan of treatment does not contemplate removal of bacilli from the spleen, intestinal wall and various tissues of the body, but does contemplate elimination of bacilli and poisons from the intestine, and of toxin from the body by way of the intestine."

A second example: I am made to say that I had never had a fatal hemorrhage, and that I had had but few perforations. What I did state, after pointing out that twenty per cent of the mortality of typhoid fever had been attributed to perforation and hemorrhage, was that "in my own experience I had never had a fatal hemorrhage, and but few hemorrhages, nor had I had in all these years a single perforation."

I am sure you will agree with me that it is most unfortunate, when mistakes like the above occur, utterly false impressions are received by an immense number of readers, and it frequently happens that this impression remains, since many who have read the report will fail to notice the correction.

W. B. THISTLE.

171 College Street, November 1st, 1900.

Book Reviews.

Heart Disease in Children and Youth. By CHARLES W. CHAPMAN, M.D. London, E.C.: Medical Publishing Company, 22½ Bartholomew Close.

This little work is made up mostly of histories of cases treated by the author. The first part consists of general remarks on causation, diet, clothing, exercise, sports and games, and then prognosis. The value of the book is seen when the case histories are read and the comments on each noted. The work is worth reading for these alone. His opinion as to the future outlook in these cases is more favorable than has usually been held.

Fractures. By Carl Beck, M.D., Visiting Surgeon to St. Mark's Hospital and to the New York German Poliklinik; formerly Professor of Surgery New York School of Clinical Medicine; Consulting Surgeon Sheltering Guardian Society, Orphan Asylum, etc. With an Appendix on the Practical Use of the Roentgen Rays. 16 mo., 335 pages, 178 Illustrations. Philadelphia: W. B. Saunders & Co. Toronto: J. A. Carveth & Co. 1900. Price, \$3.50.

This book is a useful addition to our literature on the subject of fractures, one of the peculiar features of it being that not only does it give wood cuts showing the position of the fragments as they are supposed to be in the living, or as they have been found in dead limbs, but by the application of the Roentgen rays it supplies skiagraphic illustrations from life of all the principal fractures scriatim. And this is really not one of the least useful of the applications of this discovery. Its benefits in treatment are enumerated as follows by the author: To see exact condition and complications of dislocation; intervention of soft tissues, etc.; to verify proper position after dressings are applied; in fitting orthopedic shoes, etc.; in ankylosis; in court; in fracture of pelvis and injuries to vertebre, sternum, ribs; to hip, knee and other joints, besides some others which do not much impress us with the necessity of the rays. But as we have intimated, their use in depicting fractures to others is well shown in this book. In an appendix "Practical [instruction in the] Use of the Roentgen Rays" is given. Space forbids us to follow the author through the details of treatment; suffice it to say that they may be read with benefit even by the "well posted" surgeon. The author is inclined to be rather conservative in discussing the question of early massage and passive motion, in comparison, for

example, with the contemporary advice of Watson Cheyne; and he combats a supposed alliance between these adjurants and carelessness as to perfect reduction and immobilization. Under the section on "Compound Fractures," he devotes fourteen pages to the subject of asepsis: in fastening sterile napkins to the wound surface underneath the skin margins, handling tissues with instruments instead of hands, and in some other similar methods we may not be ready to follow our author, but we can say that his book has offered many good suggestions, which we are glad to have seen so well put.

Practical Uranalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons and Students. By Charles W. Purdy, LLD., M.D., Queen's University, Fellow of the Royal College of Physicians and Surgeons, Kingston, Canada; Professor of Clinical Medicine at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes: Its Causes, Symptoms, and Treatment." Fifth Revised and Enlarged Edition. With numerous Illustrations, including Photo-engravings, Colored Plates, and Tables for estimating total solids from Specific Gravity, Chlorides, Phosphates, Sulphates, Albumin, Reaction of Proteids, Sugar, etc., etc., in Urine. 6 x 9 inches. Pages xvi-406. Extra Cloth, \$3.00, net. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

This work has run through five editions since its appearance in 1894. This is high praise for any book. But when the contents of the work are examined it becomes at once apparent why so many editions have been exhausted in so short a period. There is a vast storehouse of trustworthy information on the examination of urine. The various methods of examination are clearly set forth, and the clinical significance of the different urinary constituents carefully pointed out. The illustrations, paper, type and binding are good. We strongly recommend the work.

Essentials of Histology. By Louis Leroy, R.S., M.D., Professor of Histology and Pathology in Vanderbilt University; City Bacteriologist, Nashville; Bacteriologist to the State of Tennessee. Seventy-two Illustrations. Philadelphia: W. B. Saunders & Co. Toronto: J. A. Carveth & Co. Price, \$1.00.

This is No. 25 of the publishers' well known series of quizcompends. The several systems are taken up in order. The descriptions are brief, but clear. The illustrations are nearly all original, and well executed. The instructions regarding staining and mounting are ample for the ordinary work of any physician. Its usefulness will be mainly for the student in preparing for his examination. The publishers have turned out an attractive book. To those who require a small work on histology we commend this book.

Atlas and Epitome of Special Pathologic Histology. By Docent Dr. Hermann Durck, Assistant in the Pathologic Institute, etc., Munich. Authorized Translation from the German. Edited by Ludwig Hertoen, Professor of Pathology in Rush Medical College, Chicago. Circulatory Organs; Respiratory Organs; Gastro-Intestinal Tract. With sixty-two colored plates. Philadelphia: W. B. Saunders. Canadian Agents: J. A. Carveth & Co., Toronto.

As the author states, "It is no easy task for the beginner to select among the many changes those that are typical of a certain process." The object of the book is further stated to be "To further the knowledge of the microscopic changes produced by disease." This object the plates and text of the book are well calculated to achieve. The plates are taken from typical specimens in Dr. Dürck's own preparations, and the execution of them is admirable. The book bears to more ponderous text-books of pathology the same relation that microscopic demonstrations bear to didactic lectures. Two more volumes are promised shortly, and the set should form part of the library of every student of pathology.

Chemistry and Physics—A Manual for Students and Practitioners. By W. Martin, Ph.B., M.D., and W. H. Rockwell, M.D. Edited by Bern. B. Galloudet, M.D. One hundred and thirty-seven illustrations. New York and Philadelphia: Lea Brothers & Co.

This work is well arranged for the object in view. The first thirty-four pages are devoted to general chemical questions and formula, and do a good deal to make the subject of chemistry simple and interesting. Inorganic chemistry has devoted to it 116 pages. The usual information, in an up-to-date manner, is given. Organic chemistry is rather briefly discussed in about thirty pages—this space is almost entirely devoted to alcohols and phenols. The remaining 176 pages are taken up with much valuable information on physics, such as matter, force, gravitation, pressure, motion, gases, expansion, barometers, air pumps, electricity, etc. The book is well made in every respect, and ought to have a good sale.

A Text-Book of Pathology. Edited by Alfred Stangel, M.D., Professor of Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital; Physician to the Children's Hospital, Philadelphia, etc. Philadelphia and London: W. B. Saunders & Co. Canadian Agents, J. A. Carveth & Co., Toronto.

The third edition of the work has been revised and the subject matter brought up to date. The sections on General Pathology have been especially well re-written and modern views presented in a concise and readable form. Neuro-Pathology has been dealt with by Dr. Joseph Sailer. The author has endeavored to give to the student and practitioner of medicine a book of moderate size, presenting the subject in a practical form and always from the standpoint of a clinical pathologist. Prominence is given to Pathological Physiology. Discussions upon methods are not entered into to any great extent, it being thought unwise to "pad" the book with matter which is so appropriately presented in special works on tech-There are 372 illustrations, which add much to the value of the book. The chapter on Bacteriology, of nearly one hundred pages, is by no means the least valuable part of the book. It is divided into two parts, the first dealing with diseases of well recognized sources of origin as to their bacteriology, and the second with diseases of unknown bacteriology. It is noticeable that he maintains the view that rheumatism belongs to the latter class and describes Achalme's bacillus in a concise manner. In like manner all the recent bacteriology is well discussed. It is a work admirably adapted to the necessities of the student and practitioner.

A Text-Book of the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College. Philadelphia, etc. Fourth edition, thoroughly revised and illustrated. Published by W. B. Saunders & Co., Philadelphia and London. Canadian agents, J. A. Carveth & Co., Toronto. Price, \$5.50.

The present edition of this well-known work impresses one very favorably in several respects. It is most comprehensive. In its 1,200 pages is to be found a description, in most cases necessarily very brief, of one would think every disease which could be included in a text-book of medicine. It is impossible to criticize other than in a general way a book embracing such a multitude of subjects. The author's style is clear and concise, and the views expressed seem to be in accord with what is most recent and accepted by the best. To particularize, the

articles on appendicitis, diphtheria and tuberculosis seem exceptionally good, and to embrace the most approved ideas with reference to treatment in these affections. Indeed, throughout almost the entire work treatment receives careful attention. Methods and modes of treatment are given in as much detail as possible. The section on diseases of the chest is embellished by several excellent illustrations. In the present edition the section on diseases of the digestive system has been extended, and includes new articles on the subjects of entero-colatis in children and acute chalecystitis. Altogether the work reflects credit on its author, and can be said to merit the appreciation which it receives, as evidenced by the rapid exhaustion of the previous edition.

An American Text-Book of Physiology. Edited by WILLIAM H. HOWELL, Ph.D., M.D., Professor of Physiology in Johns Hopkins University. Baltimore, Md. Second Edition. Vol. I. Philadelphia: W. B. Saunders & Co.; Canadian Agents: J. A. Carveth & Co., Toronto.

The first edition of this work was presented in one large volume. It has been thought best to issue this edition in two volumes for the convenience of the student. Volume I. treats of the subjects: Blood, Lymph and Circulation; Secretion, Digestion and Nutrition; Respiration and Animal Heat, and Chemistry of the Body. In the short time which has elapsed since the first edition was issued, many advances have been made in physiology. The contributors have, as far as possible. noted the changes and incorporated the newer ideas in the book. In Volume I. the work has been contributed by five writers, all professors of physiology, John G. Curtis, M.D., Columbus University; W. H. Howell, Ph.D., M.D., Johns Hopkins; Graham Lusk, Ph.D., F.R.S. (Edin.), Yale; W. T. Porter, M.D., Harvard, and Edward T. Reichert, M.D., University of Pennsylvania. Throughout the book it will be observed that most of the contributors have made free use of references to other works, and these are indicated by foot notes, enabling the reader to follow any special subject rather more closely than would be possible were he confined to the ordinary text without the references.

The last chapter, Chemistry of the Animal Body, is very instructive and should be carefully read by every student. This chapter does not appear in its proper place. It should be presented to the reader before the chapter on Chemistry of Digestion and Nutrition.

The work is valuable, not only to the student of medicine, but also to the practitioner.

Physician's Visiting List, 1900. Fiftieth Year. Philadelphia: P. Blakiston's Son & Co.

This visiting list was first published in the Autumn of 1851 for the year 1852, by the firm of Lindsay & Blakiston, the predecessors of P. Blakiston's Son & Co., which was established in 1843 at Fourth and Chestnut Streets, Philadelphia, and a comparison of the early issues with the handsome book of to-day shows at a glance why it has continued to live. Never content with its success, the publishers have always aimed to improve it, and while essential features remain very much the same, the comparison is like that of the frontiersman of fifty years ago with the educated scientist of the first year of the new century; the strong, enterprising man is there; beyond that the likeness ceases. The publishers take great pride in its stability. It is not excelled by any.

A Manual of Personal Hygiene. Edited by Walter L. Pyle, A.M., M.D. Philadelphia: W. B. Saunders & Co., Publishers. 1900. Canadian agents: J. A. Carveth & Co., Toronto.

There are a number of good contributors to this little volume, such as Drs. J. W. Courtney, G. H. Fox, Fletcher Ingals, C. G. Stockton, B. A. Randall, G. N. Stewart, and the Editor. The hygiene and care of the digestive organs, the skin, the special senses, the nervous system, and physical exercise, are taken up in the book by the several writers. It is really a pleasure to review so good a book. It ought to find many readers outside of the medical profession. The price, \$1.50, brings it within the reach of all. We commend the book to those interested in such subjects.

Suggestions to Medical Writers. By George M. Gould, A.M., M.D. The Philadelphia Medical Publishing Company.

The medical profession have been indebted to Dr. George M. Gould for some of the brightest editorials on medical subjects during the past decade that have appeared in any of the medical journals. They have also been indebted to him for terse articles on many historical subjects. He is a writer who has the happy faculty of saying what he means, and meaning what he says, and saying it in the least complicated manner. It is both a pleasure and an edification to read anything from the pen of George M. Gould. In this little volume, "Suggestions to Medical Writers," we have another example of Dr. Gould's perspicuity. We do not think we are saying too much when we say that no doctor should begin to write medical

articles who has not read Dr. Gould's book. At any rate, he cannot help but improve his style by reading the work, and profit by the advice that is given to medical writers. Medical writers are, as a rule, profile and indefinite, and a large number of articles containing good material are simply skimmed over on account of the verbosity of the authors. Many of these bad habits would be obviated if the writer had read and digested the advice given by Dr. Gould. Personally, we desire to thank him for the work, and really believe it should be in the hands of all medical men who feel that they will at some time inflict an article on their professional brethren.

Hand Atlas of Human Anatomy. By WERNER SPALTER-HOLZ, Extraordinary Professor of Anatomy in the University at Leipzig. Translated by Lewellys F. Barker, Professor of Anatomy in the University of Chicago. Vol. I., Bones, Joints and Ligaments. Leipzig: S. Hirzil, 1900.

This is a very excellent work. The illustrations, which are wonderfully clear and accurate, have been printed from the original plates; a great part of them have been done in colors. The text which has been well translated by Professor Barker forms a good guide for the study of anatomy. This work, will no doubt be accorded a place among the various text books on the college announcements, and is destined to become a popular favorite.

Pocket Medical Formulary. By Wm. M. Powell, M.D. Sixth Edition. Philadelphia: W. B. Saunders & Co. Toronto: J. A. Carveth & Co. Price, \$2.00.

The object of this book is to supply the physician with a large collection of good formulæ for the different cases he may be called upon to treat. These formulæ are arranged under the different diseases. The book is furnished with a thumb index for ready reference. In carefully looking over the pages we can confidently recommend the arrangement and make-up of the formulæ. At the end of the book there is much useful information on poisons and their antidotes, diets for different diseases, pelvic and ciphoric measurements, the relation between the metric, apothecaries and avoirdupois systems, incompatibles, obstetric table, gargles, sprays, doses, etc. There are throughout blank pages for special formulæ. The book is gotten up in a very attractive pocket form, with fine paper, type and illustrations. It is bound in flexible leather and cover flap. It will prove a most helpful book.

Progressive Medicine—A Quarterly Digest. Vol. III., September, 1900. Edited by Drs. Hare and Holder. New York and Philadelphia: Lea Brothers & Co.

The contents of this volume are diseases of the thorax and its viscera, by Wm. Ewart; diseases of the skin, by H. W. Stelwagon; diseases of the nervous system, by W. G. Spiller; and obstetrics, by R. C. Norris. The work is usefully illustrated. Like the previous volumes of the series, this one is of high merit. The information is well selected and well arranged. These volumes afford a ready means of ascertaining the best opinions of the day. The publishers are sparing no pains to keep up a very high standard of excellence.

W. B. Saunders & Company, of Philadelphia, have just completed arrangements to establish a branch of their business in Eugland. The remarkable success which has attended this establishment on this side of the Atlantic will, no doubt, be followed by success equally brilliant beyond its deep, blue waters; and the push and enterprise displayed at home, if carried abroad, will soon put the London branch in the front rank of medical publishers in the Mother Country. The state of perfection attained at home has been the stimulus to prompt extension into other domains.

NEW HOME FOR J. B. LIPPINCOTT COMPANY.—An important transaction has just been concluded by which a number of old-fashioned dwelling houses on East Washington Square have passed from the ownership of the heirs of the famous lawyer, Horace Binney, and will soon be torn down to make way for a fine building to be occupied by J. B. Lippincott Company, whose old home on Filbert Street, above Seventh, was burned down some months ago. Possession was given September 14th, and it is expected that the demolition of the old structures will The site is considered a very eligible one for the soon begin. Lippincott Company, as it has light on three sides, is very central, and they will be enabled to promptly issue and increase their excellent line of medical publications by standard author-By the way, their new catalogue, just issued, is handsomely illustrated with excellent portraits of many of America's leading medical writers. Many historic recollections cluster about the properties just sold. They stand on the ground once occupied by the old Walnut Street prison, built before the Revolution, and in which during the struggle the English confined American prisoners during the former's occupation of Philadelphia.