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## Original Communications.

### INDICATIONS FOR OPERATION IN APPENDICITIS.\*

BY FREDERICK WINNETT, M.D., M.R.C.S. ENG.,

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Surgeon, Outdoor Department, Victoria Hospital for Sick Children.

WHEN invited by our president to read a paper before this society, it seemed to me that no subject so urgently called for discussion as that of appendicitis.

The widely different views which existed in recent years should no longer prevail with such a mass of facts before us, if only prejudice were laid aside, and that plan adopted which held out a reasonable hope of saving the larger number of lives.

Since individualizing is likely to continue for some time, it is necessary to consider the treatment recommended during the different stages.

\*Read before Toronto Medical Society, January 21 1897.

## I. DIAGNOSIS.

Colic is believed by Robert T. Morris to be a misnomer, and this opinion is supported by the observations of Flint, who finds that circular muscular fibres do not exist.

Catarrhal appendicitis is said by Murphy to exist in the proportion of one to 194 cases.

J. A. Macdougall, at the last meeting of the British Medical Association, said: In the great majority of cases, with ordinary care, the condition can be usually recognized, but at times there is a deceptive absence of relation between the symptoms, the physical signs and the lesion. All but two to four per cent. of peritonitis in men is said by J. H. Carters to be caused by appendicitis.

The case of Gambetta is frequently instanced as an example of the subacute form suddenly becoming acute.

Referring to the treacherous nature of the disease, Murphy writes: "Suppurative peritonitis cannot be diagnosed with any degree of certainty. It may exist and contain free pus with temperature 99° F. and pulse 80, and good facial expression. While retention appendicitis with peritoneal cavity free from infection may present the classical symptoms of peritonitis—thus: temperature, 105° F.; pulse, 140; enormous tympanites and anxious facial expression"—the use of opium masks the progressive character of some of the most important symptoms.

## II. TREATMENT TO BE PURSUED DURING THE FIRST TWENTY-FOUR HOURS.

Bryant, of New York, believes the percentage of recoveries without operation to be sixty to eighty, while Macdougall puts it at seventy-five. The recurrences are believed to be between eleven per cent. and seventeen per cent. Treves, who is opposed to the early operation, puts the mortality of non-suppurative cases at eleven per cent., and in abscess cases at thirty to forty per cent. The Royal Infirmary, Edinburgh, has a mortality of twenty-five per cent., and St. Bartholomew and St. Thomas' Hospital a mortality of twenty per cent.

Murray, of Liverpool Infirmary, who operates only in abscess stages, reports twenty-three cases in all, with a mortality of seventeen per cent.

I shall give the expressed opinions of a few representative men.

Treves: During an attack an operation is seldom called for before the fifth day. Terms too strong cannot be used to condemn

the practice of immediate operation; by that I mean as soon as the diagnosis is made. It is not to be disputed that a fatal attack may commence mildly, and that it is not possible to foretell the degree of an attack by its mode of onset. But these terrific phases of the malady are exceedingly rare and not difficult to recognize. In these cases operate at once. Always operate if there is evidence or strong suspicion of pus.

Fowler: As soon as the progressive nature of appendicitis is assured, operate. Acute cases may run through all the stages in from thirty-six hours to five days. Acute cases, becoming subacute in a few hours, are next gravest, as it implies necrotic changes. Operated on two cases during first day. One recovered and one died of pneumonia (la grippe). Prognosis is only favorable in cases which are retrogressive in twenty-four hours, as evinced by the symptom of tenderness. Cases recovered without operation, 8.

Began to subside in 24 hours,	5
“ “ “ 30 “	1
Mild case,	1
Well-marked case,	1

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H. O. Marcy: When done early mortality is one or two per cent. Fatal cases were those in which the appendix had already ruptured and had scattered the bacilli into the abdominal cavity.

Mayo Robson: Operate if the onset is acute, with rapid pulse and tenderness over the appendix, without the presence of a tumor.

Robert T. Morris: The simple diagnosis of appendicitis I hold to be sufficient excuse for operation. Of thirty-seven cases of early operation without infected exudate, had no deaths.

J. W. White: Immediate operation is indicated when the onset of a case is marked by both suddenness and severity.

Murphy: Operating on all stages and conditions number 140; deaths due to operations, 2. Would you delay operating on a case that is progressing favorably? By that I mean, temperature 99° F., pulse 80, expression good, abdomen with no alarming signs? No. I have seen cases of this class go to the third, fourth, and fifth day, with all of the most favorable symptoms that could well be imagined, and on the sixth day die from suppurative peritonitis, which existed all the time. As we are unable from the signs and symptoms to determine the exact pathological condition, there is only one safe position to take, that is, to operate as soon as the diagnosis is made. In the first forty-eight hours the appendix is not

usually ruptured, and involves very little risk. The rule, first, last, and always, should be : operate in every case of appendicitis, promising or unpromising, at the earliest possible moment.

Comparing the results we have :

(1) Those who operate in very acute cases, and in abscess stage, with mortality of seventeen to twenty-five per cent., and there will relapse eleven to seventeen per cent.

(2) Those who take a middle course.

(3) Those who operate as soon as the diagnosis is made, mortality one to two per cent. ; without relapses and practically without herniæ, but will operate unnecessarily on sixty per cent.

### III. FROM THE TWENTY-FOURTH TO THE FORTY-EIGHTH HOUR AFTER ONSET.

Pus may form in two days, but usually not before the fifth day.

J. A. Macdougall : If at the end of forty-eight hours the symptoms ameliorate, and in which increased resistance and slight dullness pointed to tumor formation, then I would watch and wait events, for I have seen very many such cases get thoroughly well, and the great majority of them have no return of disease. Operate if pus forms.

Murphy and McBurney show by their early operations that the symptoms are identical in the early stage between local peritonitis and general suppurative peritonitis.

J. W. White : Whenever, during even a mild attack, the symptoms at the end of forty-eight hours are unrelieved or are growing worse, operate.

Charles A. Morton pleads for early operation in every severe case of appendicitis, because it is impossible to say but a general septic peritonitis has not already started or that a purulent collection may at any moment break through.

J. H. Carters : Operated on nine during acute stage. Three died from causes not due to operation, as general peritonitis, delirium tremens, and exhaustion on sixth day.

Fowler : During second day operated on twenty-two. Three died of septic peritonitis present before operating.

Murphy : Did 141 early operations. Two died, excluding general suppurative peritonitis present at operation.

Morris : Had fifty-nine cases ; the infection limited to the immediate vicinity of appendix. No deaths. And of twenty-three localized abscesses, no deaths.

Comparing these results :

- (1) Conservative operators, mortality seventeen to twenty-five per cent.
- (2) Moderate operators. Fowler operated on twenty-two cases second day. Mortality fourteen per cent.
- (3) Early operators. Mortality one to two per cent.

### III. PERFORATION.

Indicated by a sudden increase in the acuteness of the pain and a rapid diffusion of tenderness. There may be tympany, rigor, or diarrhœa.

John A. Wyeth : Could not foretell perforation.

Murphy : Appendix was perforated in eighty-seven per cent. of his operative cases.

J. W. White : Indications for operation are practically undisputed.

Fowler : Have seen appendicitis with temperature 99°F. and pulse 80. A remission of the symptoms, save local tenderness, may take place, and yet the disease pass steadily onward through all its stages to a fatal issue. Had a case of gangrene and perforation in twenty-nine hours.

If it perforates into abdominal cavity will recover if removed before exudation occurs.

Cases operated upon, 162.

Protecting adhesions absent after 48 hours in 10 cases.

Protecting adhesions absent after 3 days in 5 cases.

Perforation occurred (in these) in 7 cases.

Adhesions had given way in 22 cases.

Serum slightly turbid without general peritonitis in 6 days.

Recovered (of these) in 5 cases.

Willy Meyer : In first 12 hours operated on 4 ; died, 1. After 12 hours operated on 5 ; died, 5.

McBurney : Operated on 24 ; died, 10. All deaths due to pre-operative septic peritonitis. Cases of suppuration not completely separated from the general peritoneal cavity, but which had extended only over the peritoneum in the immediate neighborhood of the appendix, yield to operation almost without exception. A few hours suffice for the fluids to overflow the pelvis and carry the infection far and wide among the intestines.

These results indicate that perforation cannot be foretold, often not diagnosed in its early stage, and operation has been unsuccessful unless performed within twelve hours, or before general peritonitis sets in.

## IV. CASES SEEN FROM THIRD TO SIXTH DAY.

Cases presenting indications of the beginning circumscription of the disease by adhesions, and which tend to the formation of localized abscess.

Murphy : Fifty per cent. fatal cases terminate before the end of the sixth day.

J. A. Macdougall : After the second day early adhesions are walling in, or lymph sealing a highly dangerous lesion. In reaching and removing the appendix we must approach it by opening the general cavity of the peritoneum, and by breaking down delicate adhesions which have arisen to protect from potent septic influences.

Richardson : Speaks of this time as "too late for the early operation, and too early for the safe late operation," and says "there is no more difficult operation in surgery than that of removing an appendix at this stage without infecting the general peritoneal cavity."

Willy Meyer : On fourth to sixth day a number of patients will be saved under palliative treatment who would die if then operated upon.

Fowler : Operation is safe and advisable.

During this stage operated on 69 ; died, 20.

Died as result of operation, 3. (Post-operative adhesive bands and obstruction).

Died, but not due to operation, 17. Pre-operative septic peritonitis, 15 ; hæmorrhage from iliac, 1 ; obstruction (appendix acting as constricting band), 1.

McBurney : An important and encouraging fact that has not often been referred to is that, although the apparent dangers of causing infection of non-infected part in the course of an operation for a diseased appendix is very great, yet in reality experience has shown this not to be the case. Such has not occurred in a single instance.

From these results we must infer that in expert hands there is no danger of infecting the general peritoneal cavity, and when peritonitis is not already present the death rate is only four per cent.

## V. ABSCESS AND LOCAL SUPPURATION.

J. A. Macdougall : In simple appendicitis the gradual formation of a tumor recognizable on or after the third day may disappear quickly, or it may remain tangible for two or three weeks. Such are safe and simple, but under such a guise may appear certain dangerous conditions. The treatment is an unsettled question.

In appendicitis with abscess, the onset is more severe, and in many of these the occurrence of perforation is at their root. It may resemble general peritonitis and there may be pus without tumor. Operate if pus forms.

McBurney: Sudden severe pain felt toward the end of the second day in right iliac fossa, followed in a few hours by a rapid rise of temperature and the existence of a palpable, sensitive tumor of recent formation, invariably means suppuration and demands operation. Cases of suppuration and local peritonitis are almost always favorable if operated upon.

J. W. White: Indication for operation is practically undisputed.

Treves: Operate if swelling continues to increase with no abatement of fever, etc. If there is evidence or strong suspicion of pus, operate at once.

Mayo Robson: Operated upon fourteen; all recovered; onset acute in eight; appendix removed in eleven; time of operation first to fourteenth day; one quiescent and three relapsing.

Murray: Operated on ten, with one death.

Murphy: In ninety-four per cent. of acute cases pus is found outside of the appendix—may not be perforated. Operates at the earliest possible moment.

Operated on 19; cavity opened; from 50 hours to 10 days; one died.

Operated on 7; cavity not opened; from 8 to 14 days; all recovered.

All are agreed as to operating when pus is present. In tumor formation with subacute symptoms, some follow an expectant plan and risk an occasional perforation, while others operate on all cases with seldom a death.

#### VI. GENERAL SEPTIC PERITONITIS.

Macdougall: A quick, thready pulse, repeated vomiting, marked depression, it may be somnolency, severe continued pain, or pain which, while in itself relieved, is associated with recognizable advance in local signs, acute and extending tenderness, with increase in abdominal distension and thoracic respiration, are indications for operation.

Fowler (1894): In diffused septic peritonitis the abdomen is flat, inflammatory symptoms are asthenic; should be given the benefit of an operation. The element of time will govern the fate of these cases. Without suppurative changes they may be favorable;



with suppuration the prognosis is very bad and increases with time. Entire number of operations, 162.

In two cases there was general peritonitis without rupture of adhesions. Recovered.

In 30 cases from extravasation of pus, all died.

Up to tenth day, 39 deaths, of which 31 were septic peritonitis.

After tenth day, three deaths, of which one was septic peritonitis.

Four cases complicated with pregnancy, all died.

Deaths in non-operative cases, six.

Perforation and septic pneumonia, second day, two.

Perforation, etc., fifth day, two.

Perforation, etc., tenth day, one.

Septicæmia, twelfth day, one.

McBurney (1895): Lymph and adhesions have a favorable influence on prognosis. All such cases operated upon in two years, twenty-four; died, ten.

I. Cases recovered, fourteen, or fifty-eight and one-third per cent. Onset was acute in twelve. Age: all over fourteen but one, who was nine. In one case temperature 100°F, pulse 100, and in another temperature 100.4°F, pulse 88. Parts infected: whole cavity in 7; appendicular region and up to left in 1; appendicular region and pelvis in 4; appendicular region and down to right in 2.

It was primary attack in 12; adhesions, localized and ruptured, in 2; none in 5; few in 5; extensive in 2; appendix removed in 13.

Influence of time on operation:

During second day, 3 operations, all recovered = 100 per cent.

End of 48 hours, 9 operations, 6 recovered = 66 per cent.

After 48 hours, 12 operations, 5 recovered = 41 per cent.

II. Cases died, 10.

Onset acute; age: under 14 four; temperature, etc.: one was 101.5°F, pulse 110; one 103°F, and pulse 108; and one was 102.5°F, with pulse 100.

Parts infected: whole cavity 8, appendicular region and pelvis, 3.

Primary attack in 8; adhesions: none in 6; few in 3; pus sac ruptured in 1; appendix removed.

Cause of death in 9 cases was continuation of symptoms and shock.

Murphy (1895): Pus with staphylococcus and inert bacillus coli commune may be present in peritoneal cavity for days without excoriating endothelium or proving very harmful.

If normal glistening appearance of peritoneum is present,

patients recover. If streptococcus be present the peritoneum in a few hours loses its endothelium and looks blistered ; not much pus ; lymph in flakes ; practically all die.

*Bacillus coli commune*, when pathological, resembles in action the streptococcus.

In early stage cannot diagnose further than presence of appendicitis. Suppurative peritonitis may exist and contain free pus with temperature 99° F. and pulse 80, and good facial expression.

Murphy : Operated on all cases, all stages and conditions, favorable or unfavorable. Deaths, 9.6 per cent.

General septic peritonitis, 11 ; died, 4 ; operated on from 33 hours to 11 days ; primary attack in 9 ; appendix perforated in all but one.

Mayo Robson (1896) : General peritonitis with pus, 6 cases ; cured, 5, or 82 per cent. ; all acute ; time, 2 to 4 days ; appendix removed in 4 ; one miscarried on second day, and was operated upon third day. Died, 1 ; operated on third day ; was cold and collapsed before operation.

In the *British Medical Journal* of this year is reported a case of general septic peritonitis cured by antistreptococcic serum.

This shows a steady improvement. Beginning with Fowler's 30 cases without a single recovery, we have, later on, Murphy saving 36 $\frac{1}{3}$  per cent. ; McBurney, 58 per cent. ; and, quite recently, the splendid results of Mayo Robson of 82 per cent.

These highly encouraging results are due to improved methods of cleansing and drainage, and, with the assistance of antistreptococcic serum, we may confidently hope for something still better.

#### VII. RECURRENT CASES.

J. W. White : Indication for operation is practically undisputed when :

- (a) Attacks of any type have been numerous.
- (b) Increasing in number or gravity.
- (c) Have at any time put the patient's life in great danger.

Fowler : Absolutely no reliance is to be placed on the character of recurrences as prognostic indications.

In 162 operative cases 33 per cent. had previous attacks, averaging about 3. Operated in intervals on 8 ; all recovered. Condition found in 3 : Corkscrew and meso-appendix short, 1 ; thick and adhesions, 1 ; enclosed in peritoneum and degenerative changes, 1.

J. A. Macdougall : When medical means fail, when attacks are increasing in frequency, or are so severe as to imperil life, operate.

F. A. Southam : Operated on 10 cases. Collection of pus in 2 ; tensely distended in 1 ; hard fæcal concretions in 1 ; abscess in 4. Advises only after second attack, as many get well.

F. Treves : Operated in quiescent stage on 150. Died, 1.

Bryant : Secondary attacks occur in 11-17 per cent.

Willy Meyer : An appendix which has been inflamed once should always be removed.

Mayo Robson : Remove two to four weeks after an attack.

#### VIII. RELAPSING CASES.

Fowler : Operated upon in acute relapse, eight ; recovered, seven ; died of septic pneumonia, one.

Operated upon in quiescence, twenty-two ; recovered, twenty-one ; died of tubercular ulceration, one.

Condition of appendix in twenty-three cases : Thickened and exudative inflammation, six ; fibrous degeneration and obliteration of cavity, three ; stenosis, cystic dilatation, and muco-pus, thirteen (perforated, five ; non-perforated, eight) ; tubercular ulceration, one.

Macdougall : Remove the appendix if an induration tender to the touch or a palpable tumor remains after one or more acute attacks, and when a sense of uneasiness is constantly present in the iliac fossa.

J. W. White : Operate when the condition unfits the patient for work or activity, or has caused local symptoms which are permanent or persistent.

Since one-third of acute cases operated upon had previous attacks, it follows that an operation during quiescence would have saved all the suffering and the lives of the 33 per cent. who died.

The character of an attack is no guarantee of future mildness, and it is evident that a patient should be advised not to risk a second attack.

Relapsing cases are all the more urgent.

#### IX. AS TO REMOVAL OF APPENDIX DURING AN ACUTE ATTACK.

Most surgeons agree with McBurney, who advises not adding danger of seriously infecting the peritoneal surface, and says the appendix is frequently destroyed by the suppurative process.

From cases reported where it has been left, it seems that about six per cent. have subsequent trouble and one per cent. die.

Murphy gives two per cent. of foreign bodies and thirty-eight per cent. fæcal stones.

## GENERAL CONCLUSIONS.

H. O. Marcy: He had never had occasion to regret having operated, while he had often felt deeply sorry that he had not done so.

John A. Wyeth: Had not seen a single death from the affection, which could not properly have been ascribed to delayed skilful interference.

Robt. T. Morris: Death, hernia, and suffering are preventable in appendicular cases.

Mayo Robson: I believe the early operation undertaken as soon as appendicitis is diagnosed, first advocated by McBurney, would lead to a far greater percentage of recoveries than the method of individualizing.

I have never regretted operating, but I know of several calamitous cases where delay at the request of the patient or his friends has led to a fatal termination, which might probably have been avoided had operation been more strongly urged.

Murphy: There is a growing tendency in the profession to shirk the responsibility of operating when the dangers are great; *i.e.*, to defer operation on the most dangerous cases, and advocate operation on the obliterating or stenosing recurrent varieties, in which there is the least danger to the life of the patient from the disease. We must not swerve from our obligations to our patients, but should make every effort to rescue them, regardless of the praise or condemnation bestowed upon us.

The importance of this disease will be better appreciated when we consider that one case occurs yearly in a population of 2,000. I have personally, with the assistance of Dr. Bryce, consulted the certificates of death at the registrar's office, and have tabulated those of appendicitis, and also those for which it may be mistaken. There are nine under appendicitis, and I am confident there are as many more certified under the heading of peritonitis, etc. This places the mortality between ten and twenty per cent.

It will be noticed that not a single case of appendicitis is reported for 1886, while there is a corresponding increase of peritonitis.

If we have not the courage to act on our convictions we should, at least, place these results before our patients or their friends:

(1) Operation during first twenty-four hours with mortality of one or two per cent., and sixty per cent. unnecessary operations.

(2) Operations only on very severe cases and for suppuration, with mortality of seventeen to twenty-five per cent. (If eighty-two

per cent. of cases of septic peritonitis be saved, this death rate would be seven to ten per cent.

(3) Operating between these extremes with mortality of fourteen per cent. (If eighty-two per cent. saved as above, then six per cent.)

## DEATHS IN TORONTO DURING 1896.

POPULATION 194,039.

Disease.	Sex.	Age.	Duration.
Appendicitis . . . . .	Male 7	12 yrs. to 24 yrs.	4 days to 7 days.
“ . . . . .	Female 2	9 yrs. to 44 yrs.	4 days to 3 weeks.
Peritonitis . . . . .	Male 4	3 yrs. to 77 yrs.	6 hrs. to 2 mos.
“ . . . . .	Female 12	17 yrs. to 64 yrs.	4 days to 3 weeks.
Pelvic Peritonitis Cellulitis..	Female 1	29	—
Chronic Pelvic Cellulitis. . . . .	Male 1	57	6 days. (Dr. King.)
“ “ “ . . . . .	Female 1	—?	—?
Puerperal Peritonitis. . . . .	Female 2	—	—
Pelvic Ovarian Abscess. . . . .	Female 2	27 yrs. and 41 yrs.	—
Perforation of the Bowels. . . . .	Male 1	52	16 hrs.
“ “ “ . . . . .	Female 1	26	5 days. (Dr. Ross.)

1886.—POPULATION 118,493.

Disease.	Sex.	Age.	Duration.
Appendicitis . . . . .	0	—	—
Peritonitis, etc . . . . .	Male 11	—	—
“ . . . . .	Female 12	—	—

## MELÆNA NEONATORUM.\*

BY JAMES WALLACE SMUCK, M.D.,  
TORONTO.

THE cases which I shall report to-night were very puzzling at the time of their occurrence, and having been seen in the country, miles from the possibility of an immediate consultation, I was left entirely on my own resources.

I shall content myself to-night with the report of two cases of melæna neonatorum which I saw, and then give you a brief résumé of the etiology and relative frequency of the condition, as found in the literature.

CASE I. Mrs. R. P., white, æt. 36, was delivered of her sixth child about 7 a.m., April 19, 1895; child a healthy-looking male. She was attended by a midwife, but in two or three hours I was sent for on account of an alarming hæmorrhage from the mother. I arrived at 10 a.m., and immediately attended to the mother; after which I was asked to see the infant, because it had, in attempting to nurse, given a little cry and vomited up a mouthful or two of blood, which the nurse said was very dark in color. Previous to this the child had passed per rectum some very tarry matter. The child was fairly well nourished, but seemed pale and bloodless; was very cold. There was once, during the time I saw it, some vomiting of blood, but not a very large quantity. The pulse was weak and thready; as near as I could count, 130 per minute. I did not attempt to take the temperature, as I considered quiet of more importance to the child. Instead of again allowing the child to be placed at the breast I told them it needed nothing, and had heat applied by means of hot flannels and hot-water bottles, and kept the child absolutely quiet. I did not think that medicines would be of much use, therefore gave none.

When I called next day I found a marked improvement in the child. It seemed brighter, more color, the respiration easier, pulse stronger, but still about 130. In the interval there had been occasional vomitings of blood—in all, five—during the first twelve hours,

\*Read before the Toronto Medical Society.

and there had been two tarry stools passed. As the child appeared hungry, I ordered spoon feeding of sweet cream (fresh) one teaspoonful, boiled water four teaspoonfuls, with sufficient sugar of milk to sweeten. There was an uninterrupted recovery, and as the mother had milk in the breasts on the fourth day I allowed the child to be nursed afterward. I saw this child occasionally, and there was none more healthy in the neighborhood.

The only causative feature that impressed me at the time was the coldness, although I looked for bleeding points in the mouth, throat, and nose, and there were none. The mother was neurotic; and inclined to bleed easily. She said she had lost her previous child just the same way, but had not consulted a physician.

CASE 2. Mrs. E.S., white, Canadian, thirty-three years of age, gave birth to her sixth child November 13, 1895, after a tedious labor, to terminate which I had to apply the forceps, although very little force was necessary. The cord was wound once around the neck, but I quickly removed it, and respiration was established without difficulty. As soon as the pulsations in the cord ceased I tied and cut. Then handed the child to the most officious old woman standing near. She wrapped it up and laid it by the stove. There seemed to be a great deal of mucus in the mouth and air passages. Of course the old women said the child had the cold. During the time of washing and dressing a large quantity of tarry matter passed per rectum, which appeared to me meconium mixed with broken-down blood-clot. There was considerable mucus coming from the mouth and nose, with a gurgling sound in the throat. The room was somewhat cold, and I enjoined the body heat to be raised by hot flannels and hot-water bottles. I ordered the child to be kept quiet for twenty-four hours before putting it to the breast. There seemed no other indications for treatment, and I left, not expecting any further trouble, although I was satisfied that it was a case of melæna. I left word that I was to be sent for if any untoward symptoms developed.

In about nine hours the snuffing and gurgling, which had not entirely left, became worse, and continued to increase in violence for about two hours, when a severe hæmorrhage from the mouth occurred and I was sent for; before I could arrive, however, the child was dead. The hæmorrhages had followed one another rapidly, so that death had taken place within half an hour after the first vomiting of blood. There had been one tarry stool about six hours after birth. I examined the interior of mouth and nose; and as no information could be gathered I asked for a post-mortem examin-

ation, but was refused, so I have to content myself with conjectures as to the cause and condition.

In the family history the only noticeable things were: Mother a strong, vigorous woman, father weaker; previous child was asphyxiated at birth, and I could not establish breathing. The father had had gonorrhœa some four or five years previously, and the cure, to my mind, was doubtful, although I never examined him nor treated him. The mother I had treated the previous summer for metritis, which I suspected to be due to the gonococcus, but did not know definitely until after. In this case there may have been some injury to the brain by the forceps, although I had no difficulty in putting them on, and do not remember to have been better satisfied with my manipulation of them. The position of the cord in this case may or may not have been a factor in causation. Whether this condition existed in Case 1 or not I cannot say. In both cases the mothers had lost their previous children at birth.

In looking up the subject, I find that Lewis gives a résumé of his study of the literature contained in the library of the Surgeon-General's office in Washington. He states that only one hundred and eighty-three cases of melæna vera neonatorum were there reported. About as many different opinions as to the cause appear to exist as there have been observers. Some, such as Billard, Landau, and others, hold that ulcers in the stomach and duodenum are the cause. No doubt these are causes of hæmatemesis in the adult. Again, hæmophilia, hereditary or acquired, premature delivery, etc., were given as causes. In two or three instances the cord was wound around the neck at birth. Syphilis does not seem to be a potent factor. Neumann thinks that the hæmorrhagic diathesis is due to sepsis and not to syphilis.

It does not appear that the brain has been examined very frequently with a view to finding the cause, and this is the more striking when we think that Lussman, Ebstein, Brown-Séguard, and others have noted that injuries to certain nervous centres caused congestion of and even hæmorrhage into certain abdominal viscera, notably stomach and colon. In these the hæmorrhage has been capillary in character.

Pomorski reports a case of melæna at the autopsy in which was found congestion of and hæmorrhage into the lungs, and the gastric and small intestinal mucosa. At the same time there was hæmorrhage of the brain, which had destroyed, among other parts, the floor of the fourth ventricle with its vaso-motor centre. He then tried experimentally to produce melæna by destroying different parts



of the brain in newborn rabbits, and found that if the vaso motor centre was injured either directly or indirectly (as by hæmorrhage into adjacent parts) congestion and possibly hæmorrhage from some portion of the alimentary canal occurred. He thinks that the brain hæmorrhages which have been found in autopsies of children dead with melæna neonatorum are no longer to be regarded as complications, but the cause of the other symptoms.

Ritter has given a résumé of some one hundred and ninety cases of hæmorrhage from the newborn, and in these thirty-four per cent. had melæna. In all, forty-five autopsies were made, in twenty-three of which the brain lesions were noted; such as meningeal congestion, inflammation, purulent and simple, œdema, extravasations of blood into meninges and brain substance, softening of the pons and medulla, and effusion into the ventricles of bloody serum. In only two cases where the brain was noted was there found no gross lesion. In Eppinger's case there were no gross lesions of the brain, yet there were micro-organisms in the blood, peritoneal, and cerebro-spinal fluids. He states that these organisms belong to the class known as monads, and he thinks the infection to have been through the mouth. Then, again, various bacilli and cocci have from time to time been noted. Neumann states that he found in the tissues of a syphilitic case in which death had occurred seventeen days after birth the *Bacillus pyocyaneus* B., and says this bacillus was not found until that time in human tissues.

Another explanation of melæna is that given by Loranchet, in which he attributes the melæna to the gradual chilling of the surface of the body after birth. The cold acts as a gradual depressant of the nervous system; general circulation is disturbed; peripheral circulation is slowed; the vaso-motor system is unbalanced. The change from the splanchnic cycle of the fœtus to the cardio-pulmonary cycle of the newborn infant is interfered with, and in the struggle of the reflexes there is a reversion to the splanchnic cycle with passive congestion of the gastro-intestinal mucous membrane, which gives rise to the hæmorrhage. I think the most of us will be prepared to say with Professor Osler, that the precise etiology is not known. Homen says that melæna is a collection of symptoms without unity in its causation.

Now a few words with regard to the frequency.

Genrich says that Carans saw one in nineteen hundred and eleven births. Genrich himself saw one in twenty-eight hundred births. Buhl and Hecker saw eight in four thousand births. Spiegelberg saw two in five thousand births. Hensch, of Berlin,

saw but fourteen cases. The prognosis in such cases is very grave and seems to depend largely upon the amount of blood lost. The results have varied, being placed at from thirty-five to seventy-five per cent. One observer, Minot, of Boston, had the very large death rate of eighty-four per cent.

Of the one hundred and eighty-eight cases collected, the result was noted in one hundred and forty-six. Of these ninety-nine terminated fatally, being not quite sixty-eight per cent. The character of the labor was normal in forty cases, abnormal in twelve, and not noted in one hundred and thirty-three.

The condition at birth was noted thirty-six times, and twenty nine are given as healthy. In thirty-two cases it was the first child, in eighteen cases it was the second; in nine cases it was the third; in five cases it was the fourth; in three cases it was the fifth; in three cases it was the sixth; and in one case each it was the seventh, eighth, twelfth, and thirteenth. In three cases the mother is given as a multipara. In sexes the children were sixty-seven males and sixty-nine females. In seventeen cases the mother's health is given as good, and in fifteen as poor. The father's health is given as good in seventeen cases and poor in nine. The age at which melæna occurred was noted in seventy-nine cases; of these thirty-one were one day or less; thirty-four were between one and three days, and fourteen over three days. The shortest time after birth at which melæna occurred was two hours, and the longest was four and one-half months.

As regards treatment, some recommend bismuth subnit. and other drugs, but I doubt whether much can be done where the infant is very young, and believe quietness and warmth to be essential. Some have recommended ice externally, but it would seem more rational to give it internally. I think that feeding from the spoon is better than nursing, as nursing seems to increase the tendency to hæmorrhage.

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## Selected Articles.

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### A NEW FORM OF ANTISEPTIC TREATMENT OF WOUNDS.

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BY DR. C. L. SCHLEICH,

BERLIN.

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IF gelatine dissolved in water is exposed to formalin vapors, a chemical compound possessing completely novel properties is formed. The gelatine completely loses its gelatinous character, and becomes an extremely indifferent and resistant hard transparent body. Neither dry nor moist heat can dissolve it, neither organic nor mineral acids, alkalies, or alkali or acid salts affect it. When heated the mass becomes slightly extensible, but regains its stiff, elastic nature on cooling. The formalin, which is not mixed with, but chemically combined in, the compound, also becomes inactive, so that hypomyces have sometimes been observed on the surface of gelatine plates hardened with formalin, and when broken into fine powder and mixed with bacteria the compound exerts no kolyseptic influence.

It was the object of my investigation to ascertain whether it is possible for the formalin-gelatine to give up its formalin in the organism and so to effect an antiseptis by means of the tissues elaborating their own antiseptic from this non-antiseptic and non-toxic substance.

As a trial the incorporation of formalin-gelatine in the abdominal cavity of a rabbit was attempted. A piece of dry formalin-gelatine about the size of an apple was inserted and sewn up with aseptic precautions. The rabbit lived and remained perfectly well during the subsequent six and one-half weeks. When I then reopened the abdomen I found immediately under the old opening, in a coil of intestine, a radiating horny connective tissue about half the size of the piece of formalin-gelatine inserted, but, to my great

astonishment, no sign of the formalin-gelatine itself. Section of the newly-formed connective tissue explained the situation at once. In the centre of the neoplastic tissue was a soft, whitish nucleus about the size of a hazel-nut, which apparently constituted the remainder of the material.

This was most astounding, that the peritoneum, leucocytes, and body juices should have dissolved in so brief a period a substance which exhibits such great resistance to solvents outside the body. Still more surprising was the fact that the implantation carried out without special precautions in the body of a rabbit, which is specially disposed to lymphomatous eruptions, developed no sign of cheesy degeneration around the smooth cicatrix.

This experiment I have naturally repeated, and also on pigeons and dogs, mixing in some cases even bacteria with the powdered formalin-gelatine, after having determined absence of kolyseptic action in the powder. The powder was absorbed without reaction. Supported by this experience, I began to employ powdered formalin-gelatine for the treatment of wounds, and found that it answered all expectations. The human system also decomposes formalin gelatine with continuous liberation of the antiseptic. Even contact of the tissues with this preparation is sufficient to cause liberation from the absorbed gelatine *in statu nascendi*, molecule by molecule, a slow continuous evolution of formalin, which effects an extremely practical wound sterilization. Here an antiseptic it used continually, as it is formed in the molecular condition. The application is a permanent one, and equally active in the wound at all times. Hence the difference in the principle of this method from all previous antiseptic measures. In the latter a temporary, and for a time very energetic, contact action of the antiseptic may take place, but in consequence of the formation of almost insoluble compounds between antiseptic and tissues subsequent action is prevented.

If the experimental proof of the constant action of the formalin-gelatine is doubted, the pre-eminent clinical utility of this material for healing wounds must be recognized. With the aid of this powder all acute purulent processes are overcome and a guarantee is afforded for the aseptic course of the wound without further measures. I have employed it without drawback in 120 cases of acute purulent processes, in ninety-three aseptic wounds, in four compound fractures, and in two deep scalp wounds.

At the same time I would mention that, instead of the strict aseptic measures usually adopted, even in the most complicated wounds, only mechanical purification was carried out, and the pow-

der carefully dusted over all the wound, with the effect that in all cases the purulent processes were stayed within twenty-four hours, the compound fractures healed aseptically and without fever, and in all cases of aseptic operations the presence of the powder afforded a guarantee for uninterrupted healing.

In presence of fresh blood and in clean wounds, the powder forms in a few hours an absolutely dry and very firm scab. In fresh purulent cases, if no necrosis of the tissues is present, the formation of pus ceases completely within twenty-four hours, and frequently pure serum instead of pus flows from the wound. Such wounds always remain soft and unreddened round the edges. Furuncles, carbuncles, and phlegmons can be brought under control in twenty-four hours, so far as the powder comes into contact with healthy or inflamed tissues; at the same it is characteristic that the blood in the bandage remains bright red, which proves the liberation of formalin, which alone possesses this property of keeping the blood corpuscles red.

Production of pus, if no necrotic residues are present, is stayed at once, and the healing process shortened. If necrotic tissue is present, as in old *ulcera cruris* and in tuberculous and luetic infections, the formalin-gelatine remains inactive, but develops its properties all the more in acute inflammation, and is a prophylactic to infection. Fresh wounds I no longer disinfect, but leave their healing to the activity of the tissues. The healing of wounds is so satisfactory that the most critical eye can detect no fault therein.

Experimental investigation of the new vulnerary by my friend, A. Gottstein, showed that hydrochloric acid-pepsine solutions are in like manner able to decompose formalin-gelatine outside of the organism. This discovery extended the application of formalin-gelatine to the treatment of wounds where the automatic development of the antiseptic failed, namely, where necrotic tissue and masses of dried secretion prevented the gelatine coming into contact with the healthy tissue.

In such old wounds the powder should be scattered over the wound as usual, and then moistened with

Pepsini.....	..... gr. lxxv.
Acid hydrochlorici .....	..... <i>m.v.</i>
Aq. dest .....	..... $\bar{3}$ iv.

The ferment effects the decomposition of the molecule and constant development of formalin vapors, otherwise brought about by the healthy or inflamed tissues, but which the paralyzed or necrobiotic cells are unable to do.

To summarize briefly, we possess in powder form a remedy which, in contact with clean wounds, forms a firm scab, without other disinfectant measures, in the course of a few hours, so that primary stitched wounds are in the shortest possible time covered with a protective layer which prevents infection. The formalin-gelatine is further able, by the molecular antiseptics set up by cellular activity, to destroy bacteria present in the tissues, and enables the cellular tissues to rapidly become masters of the situation. The formalin-gelatine stops acute purulent processes with great certainty, if after incision and application of the powder the production of tissue and liberation of formalin vapors is allowed to go on undisturbed; in presence of much necrotic material the cell activity can be supplemented by digestion with pepsin-hydrochloric acid.—

*Polyclinic.*

# Progress of Medicine.

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## MEDICINE

IN CHARGE OF

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### HOT-AIR TREATMENT OF RHEUMATISM.

An interesting article appears in the London *Lancet* of August 29, 1896, by W. Knowsley Sibley, on local hot-air treatment in rheumatism and allied affections.

The following is a brief summary of the article: In the first place, he makes note of the treatment of rheumatism by external applications, such as blisters, cupping, hot sand, etc. The only advantage that he claims for dry heat over moist is that a very high temperature can be got without scalding the patient. Moist heat at 115° to 120° F. is unbearable, and much above this scalds, but with the dry air 200° to 300° of heat can be applied without hurting the patient.

The apparatus used consists of a copper chamber, generally cylindrical, of various sizes and shapes, so that the hand, elbow, foot, knee, etc., may be inserted and treated locally.

The temperature is indicated by a thermometer, and can be regulated at will. The difficulties of suspending or resting the part during treatment have been met by an arrangement of asbestos which in no way interferes with the free circulation in the limb or of the superheated dry air around. The patient, suitably clad in flannel, whether seated on a chair or lying in bed, suffers no discomfort from the high temperature.

Treatment lasts from fifty minutes to one hour. It is to this prolonged application that Mr. Sibley attributes almost solely the



therapeutic effect. He starts with a temperature of 150° F., gradually increasing it to the desired point, and "a general free perspiration breaks out over the whole body; at the same time the body temperature is temporarily raised from a half to three degrees, a physiological effect hitherto regarded as impossible to be obtained. Also the pulse increases in frequency, and to a less marked extent the respiration. A few minutes after the operation is completed the pulse, respiration, and temperature return to the normal or previous condition. Usually about an hour after the pulse is found to be slower and stronger than it was before treatment; this was especially noticed in some cases of weak and enfeebled hearts. In cases accompanied with much pain this is almost at once relieved, and under the influence of the heat the parts soon become more lax and supple. When the limb is first removed there is often a transient erythematous blush. After the bath the whole body is briskly and lightly rubbed down with a dry towel and the limb sometimes gently massaged with olive or other oil. The patient then waits until quite cool before going out of the room in order to avoid the risk of a chill.

"It will be seen that this method differs materially in the following points from a Turkish bath: (1) The temperature is higher. (2) The application of this temperature is continuous for nearly or quite an hour. (3) The patient breathes the air of the room, and not that of the heated chamber. (4) The application of the heat is only local, the most affected part being treated. It may here be remarked that this local treatment has a general effect, and it is evidenced by the result that, although the particular part treated receives the greatest benefit, other parts of the body affected, but not actually immersed in the chamber, also much improve both with regard to pain and to increase of movement. (5) The treatment does not tend to produce cardiac expression even in the very feeble, or those conditions of exhaustion which are in some cases apt to occur when heat is applied to the whole surface of the body and at the same time inspired. A Turkish bath is less stimulating in its effects, and this local treatment may be confidently recommended in cases in which the former would be quite out of the question. (6) The portable character of the apparatus enables it to be taken to the sick-room and used by the bedside in cases where it would be impossible to move the patient. (7) The local bath gives far more successful results as a method of treatment."

Thirteen cases altogether are recorded—of these three are cases of arthritis deformans, two of subacute articular rheumatism, four of chronic rheumatism, two of sciatica, one of sciatica with lumbago, and one of neuralgia after herpes.

Two of his cases may be cited by way of illustration of the treatment :

CASE 1 was a case of arthritis deformans of four and one-half years' duration. Occupation of patient was dressmaker. Fingers were badly affected. Between August 4, 1894, and July 2, 1896, she had twenty baths. She can now use her needle at her occupation, which she had been unable to do for many months. There had been no recurrence up to August 29, 1896, and she has been steadily at work since August, 1894.

CASE 6 was one of chronic rheumatism of ten years' duration. Between July 20 and 29 she had four baths. Patient reported herself well on July 30; can now walk, which she has been unable to do for many years, on account of contraction of the toes.

The author states that these thirteen cases were not chosen ones, but are given in the order in which they occurred. The shortest was of ten days' duration and the longest of thirty years.

The results of these cases are as follows: Eight are cures, *i.e.*, have remained free up to the time of this article; two showed slight improvement, one showed improvement, one was lost track of, but improving, one still under treatment and improving.

With regard to the physiology of the processes, Sibley remarks: "Locally—(1) The heat produces dilatation of all the cutaneous vessels and free circulation through the parts—it is impossible to say how deeply into the tissues this extends, but from the results it may be judged to be some distance—and at the same time there is a marked stimulation of the nutrition of the cutaneous nerves; (2) there is free perspiration of an acid sweat; and (3) relief from pain, however produced, is almost at once apparent. Generally—(1) There is profuse perspiration and dilatation of vessels; (2) increase of the rate of the pulse and force of the heart's action; (3) increase (slight) of the respiratory movements; and (4) an increase in the body temperature often of two or three degrees Fahrenheit. The treatment appears to lower the blood pressure of the body, and in some way to increase the alkalinity of the blood, which enables it to dissolve the uric acid from the tissues and joints and get rid of this substance through the various excretory organs. This is evidenced by the relief from local pain and the removal of the frequent uric acid nerve depression. Hence the treatment is of a tonic nature and bestows an increased general vitality upon the patient."

By way of criticism of this paper, we might remark that the longest that any of these cases has been free from treatment is hardly three months, but we hope to hear again from Dr. Sibley

when, we think, his statistics will be of more value. Bearing in mind the pathology of arthritis deformans and chronic articular rheumatism, and the changes in the bone and cartilage, we fail to see how any such treatment as this can *cure* such cases.

J.G.C.

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#### CAN PERFECT BLOOD BE BORROWED FOR MAN?

In "An Address on Hæmotherapy," Dr. T. J. Biggs, of New York, at the annual meeting of the American Association of Physicians and Surgeons in Buffalo, June 23rd, 1896, arrives at the following conclusions:

(1) That bovine blood under practicable conditions can retain its corpuscular vitality and reparative power indefinitely, for direct operation in the veins, organs, and tissues of other beings needing such supply; (2) that this power is available to the human system or any part of it, debilitated, injured, or morbid, by any or every mode of access, either by alimentary or rectal absorbents, by subcutaneous injection, or by outside application to denuded tissues; and that with even *more* effect (doubtless from more robust quality) than is exhibited by the natural blood of average-healthy individuals in the repair of lesions; (3) that it has a power, as yet mysterious and unexplained, when topically applied, to abolish the most excruciating pain; (4) that whether injected or ingested it almost perfectly supplies the place of natural blood to every intent and purpose thereof in conditions of debility, anæmia, exhaustion or collapse from hæmorrhage; (5) That its vital cells (microscopically shown perfect and unchanged from those in the living animal) enter into the wasting tissues of the patient in the same way, and with the same supply of living plasma for repair as in the ordinary natural sustentation of the system; (6) that these cells possess and exert not only the reparative, but also the defensive power as against infection by microbes and other intruders into the blood, that has been demonstrated in the natural circulation, and that accounts for the resistance of healthy men generally to the assaults of disease; (7) by at least plausible speculation that this mode of reinforcing vitality generally and locally, and antagonizing morbid products and morbid agencies, may yet open up to the conquest of the most formidable plagues and malignant growths—against which it has already made very significant advances.

## CONTRA-INDICATIONS TO THE SALICYLIC TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

Professor Jaccoud at a recent clinical lecture at the Pitié Hospital, Paris, (*Medical Week*, Dec. 4, 1896), laid great stress upon the danger of using salicylic acid in acute rheumatism if visceral complications exist. It is therefore of great importance to determine whether there is endocarditis or pulmonary or cerebral complication. The presence of a murmur does not justify the diagnosis of endocarditis as it may be due to anæmia or other causes. If the valvular sounds are clear and their intensity is normal, the first sound not being in the least masked by the systolic murmur present, and if there is neither irregularity nor marked exaggeration in frequency of the heart beats it is not probable that there is endocarditis, especially if no thrill is perceived on palpation. The complete absence of any palpation symptoms would be astonishing in a case of generalized endocarditis. Cardiac complications usually make their appearance toward the middle of the second week, and supervene earlier only in cases of generalized polyarticular rheumatism characterized by excessive swelling of the joints, severe pain, and especially by the co-existence of very high fever. It is exceptional for them to exist from the onset of the affection. The presence of endocarditis constitutes a contra-indication to the treatment by salicylates.

In very acute cases of rheumatism in which a cardiac complication exists from the first, pleurisy or pneumonia may supervene simultaneously, or even precede the cardiac symptoms. In such cases the temperature is very high, the articular phenomena particularly severe, and the patient is in imminent danger. The affection is then fitly described as "visceral rheumatism." When visceral phenomena supervene later, the situation is less grave. Sometimes also cerebral phenomena appear, such as hallucinations, headache, and more or less violent delirium. Prompt action is called for but sodium salicylate must not be prescribed, for its use would be dangerous and might even cause the death of the patient. It exerts a curative action only on the articular manifestations of acute rheumatism, but has no effect on the visceral complications. Indeed, the aggravation of the visceral phenomena is often in direct ratio with the improvement observed in the joints.

In such cases we should administer, instead of salicylates, strong doses of tartar-emetac thus procuring diarrhoea and vomiting. Generally speaking, the temperature falls within a day after its administration; sometimes it rises on the second day, but this rise should not

cause any alarm, for on the third day the fever subsides permanently. This treatment has invariably enabled him to prevent pericarditis, when it existed, from progressing as far as effusion, and with it he has never met with any cerebral symptoms among his patients. He therefore advises, in all cases of early or late visceral complications in the course of acute articular rheumatism, not to administer sodium salicylate, but to have recourse to treatment by tartar-emetic, and combats the view held by some that the salicylates tend to prevent visceral phenomena.

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#### A CASE OF INFANTILE OVERGROWTH, WITH ENLARGEMENT OF THE TESTICLE.

A child of nine and half years presented an excessive development both as to his size and muscular power.

His height was four feet ten inches ; chest measurement twenty-nine and half inches. He weighed forty-four kilogr, (ninety-six pounds), and could carry on his shoulders a hundredweight.

The hairy system was very much developed ; beard, hair in the axillæ, on the pubes, on the chest, and on the limbs. The penis was that of a young man ; erections frequent and strong with vigorous sexual passions. The voice was manlike, more than average intelligence, his character was good, and he was easily managed, and thoughtful. No functional anomaly.

This excessive growth commenced when he was five years old.

At the same time the left testicle acquired an enormous size, it was ten centimetres in diameter. The right testicle was atrophied, orchidectomy was performed on the left side. The operation was very successful. There was found in the testicle an epithelial growth, and coccidia. In one month after the operation there were observed the following changes in the young patient : the hair on the face, chest, and limbs fell out. The voice became infantile : his character and moral behavior became changed. Four months later the beard had completely fallen out and was replaced by a fine blond-colored down.

The pubic hair also disappeared, and the voice was shrill.

The penis diminished in size, while the right testicle became larger. Erections were more frequent, and sexual appetite increased. His intelligence also became diminished, and especially his muscular power

According to M. Lacchi, the *pedomicrosomia* was in this case dependent upon the testicular change. As a result of the parasitic stimulation, the function of the gland increased as its size increased, and it exercised (probably as a result of the increased secretion) an abnormal influence on the bodily development—E. Lacchi in *Siv. Repr. di Freniatria.*, Vol. xxi., I., 1895, p. 149.—*Revue Internationale.*  
J.G.C.

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#### FALSE TUMORS OF THE ABDOMEN.

In diagnosis one has often to suspect abdominal growths. But amongst the mistakes likely to be made, there are none perhaps more frequent than those which are caused by false abdominal tumors.

These tumors may be caused in various ways. A hard and distended bladder has been mistaken for a new growth of the true pelvis. The gall bladder may in certain cases be greatly distended. Hydronephrosis may also lead to an error in diagnosis. The same may be said of the stomach or intestine distended by their contents.

More frequent are the tumors caused by the displacement of other viscera; a displaced kidney is generally recognized, but not always so; a floating kidney can resemble a small tumor of the liver, and this be confounded with an hydatid cyst or a distended gall bladder. An enlarged spleen reaching below the costal margin is the most easily recognized tumor. Pressure of corsets can notably compress the liver at the costal margin to the extent of detaching a part of it, which then forms a mobile tumor. There are also false pregnancies, of which we have number of examples, and which terminate without the expulsion of a fœtus.

At these observations let us appreciate the errors or the illusions which may arise from the presence of false tumors; they suffice to show us of how great importance it is to be aware of their existence, and be able to diagnose them.—Potain, in *Le Semaine médicale*, May 27, 1896.  
J.G.C.

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#### ATTEMPTS AT TREATMENT OF ACUTE ARTICULAR RHEUMATISM BY SERUM-THERAPY.

M. Weiss, assistant to M. Drasche, professor of medicine at Vienna, has observed, while assisting the latter gentleman at the general hospital, ten cases of acute polyarthritic rheumatism treated by injections of blood serum from subjects who had recently suffered from an attack of acute articular rheumatism.—*Revue Internationale.*

This serum, obtained by bleeding, was first of all sterilized, then injected in doses varying from 6 to 10 grammes; in the case of two patients only the quantity injected was eighteen in one case and twenty grammes in another. Altogether twenty-two injections were given. In the greater number of cases there was noticed a temporary decrease in the swelling, and in the pain in the affected joints, a result which might be accomplished within a few hours, or it might be on the following day only, and which was often accompanied by a lowering of temperature of from one to one and one-half degrees.

On the other hand, in certain other patients the injections did not exercise any therapeutic action, and in three cases they increased the symptoms. In one of these latter cases it began at first as a subacute case with drowsiness, and immediately after the injection it became a well-marked case of polyarticular rheumatism.—*Revue Internationale*.  
J.G.C.

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#### CHARCOT-LEYDEN CRYSTALS AND BRONCHIAL ASTHMA.

Montessori shows that the Charcot-Leyden crystals are always found in cases of chronic bronchitis, but they are of very small size and hard to find. In the paroxysm of asthma these crystals are of very large size, and are the result of the massing of similar smaller crystals.—*Revue Internationale*.  
J.G.C.

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#### TREATMENT OF GASTRIC CRISES IN TABETICS.

The author reports two cases of gastric crises in tabetics, treated successfully by oxalate of cerium, which has been employed for the last twenty-five years by English physicians in dyspepsia, cramps of the stomach, vomiting, diarrhoea, etc.

In the case of the two tabetics, the oxalate of cerium in the form of cachets of from 5-15 centigrammes, four cachets daily, lessened considerably the duration of the crisis, diminished the number of the attacks, relieved the pain, stopped the vomiting, and allowed the patient to take food.—P. Ostankow, in *Therapeut. Wochenschr.*, 1896, No. 25.  
J.G.C.

# OBSTETRICS

IN CHARGE OF

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## WALCHER'S POSITION IN PARTURITION.

M. E. Fothergill, of Edinburgh, in the *British Medical Journal* of October 31, 1896, says that Walcher's position—the *Walchersche Hengelage*—was first described by Walcher in 1889 in a short article in the *Centralblatt für Gynecologie*. By placing the parturient patient in the lithotomy posture, and then allowing the legs to hang freely down so that the feet do not touch the floor, the true conjugate is increased about one centimetre; this statement has been proved by numerous observers abroad, and the posture is now in use as a matter of routine in several German hospitals. It is employed in all high forceps operations, in extractions after turning, and after perforation of the head. Fothergill has found the posture extremely useful in several cases, which are briefly noted.

In posing the patient, all that is necessary is to see that the buttocks are quite at the edge of the bed or table used, and high enough to allow of the feet hanging clear of the floor; pillows may be placed under the buttocks if the bed is low. There is a tendency to pull the patient off the bed; but she may be held by the anæsthetist, or bands may be passed under her arms and fastened to the bed or table legs so as to hold her in position. In this posture the axis of the pelvic brim presents downwards at an angle of about forty degrees; therefore in order to exert traction in the proper direction with forceps, the operator must sit on a low stool, or on a cushion placed on the floor.

In high forceps cases, and after perforation, the position saves (1) the strength of the operator; (2) pressure on the head; (3) pressure on the symphysis; (4) pressure on the perinæum by for-



ceps. In cases of difficulty at the brim not needing forceps, and in breech cases, the position saves (1) exertion to the uterus and abdominal muscles; (2) pressure on the head; (3) pressure on the pubic symphysis. In all cases, with or without forceps, where the perinæum is in danger, extension of the legs at the hips is of advantage in relaxing the integument and subjacent structures at the vulvar orifice.—*Therapeutic Gazette*.

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#### MIDWIFERY.

For the last twenty years it has been taught that any serious hæmorrhage occurring during the later months of pregnancy was due to a partial separation of the placenta. Budin (*La Presse Médicale*, No. 64, 1896) relates the history of two cases of ante-partum hæmorrhage in which the blood came from a rupture in the circular sinus of the placenta. In neither case was the placenta situated in the lower uterine segment, nor was there any reason to believe as the result of careful examination of the surface that any separation had occurred before the child was expelled. A black clot in each instance was traced directly up to and into the interior of the ruptured circular sinus. The possibility of *ante-partum* hæmorrhage being sometimes due to this accident had formerly been suggested by Jacquemier and Matthews Duncan, but no clinical facts were brought forward to support the hypothesis until quite lately. At the present moment there are twenty-two cases on record of hæmorrhage due to the rupture of the circular sinus. It must be remembered that the so-called circular sinus of the placenta is situated at the periphery of the placenta, and does not generally form a complete circle, but is interrupted at various points. In calibre it is about equal to the little finger, but in some cases it is imperfectly developed. The walls of the sinus are very thin, which may explain the fact that rupture sometimes occurs. The blood may accumulate in the uterus between the membranes and the uterine wall, or it may escape externally—more often, perhaps, some escapes and some is retained. It is only after the labor is over and the placenta is examined that the cause of the hæmorrhage can be definitely ascertained. The prognosis and treatment is much the same as in cases of hæmorrhage due to partial detachment of a normally implanted placenta.

At the International Congress of Gynæcology held in Geneva, one of the subjects under discussion was the treatment of puerperal eclampsia. Until the pathogeny of eclampsia is better understood no rational treatment of the disease is possible, and it is more than

probable that causes at work are not always the same. According to the statistics of Dr. N. Charles, of Liège, eclampsia occurs once in every one hundred and fifty-one deliveries, and is about four times as common in primiparæ as it is in multiparæ. Among every four women who suffer from albuminuria during pregnancy, one gets eclampsia. He teaches that it is most desirable to terminate delivery in all cases as speedily as possible when eclamptic convulsions set in, and, with this object in view, labor should be induced or accelerated as the case may be. In urgent cases the cervix must be dilated by the hand, or by hydrostatic bags, and if this is impossible, Cæsarean section should be performed.

Charpentier (Paris) on the other hand counsels that we should wait for labor to come on of itself, and that delivery should be allowed to take place spontaneously whenever possible, forced delivery being reserved for very exceptional cases. Venesection and the administration of chloral and chloroform are the remedies he chiefly relies on during the attack, and further suggests that diuresis may be favored by the subcutaneous injection of artificial serum. Veit (Leydon) draws attention to the fact that many cases of eclampsia get well whatever the treatment may be, and states that there is no direct evidence that forced delivery under deep anæsthesia improves the prognosis. He does not rely on any one method of treatment, but considers that the systematic use of large doses of morphia administered subcutaneously seems to give the best results. In addition he advises that the membranes should be ruptured, labor prudently accelerated, and delivery effected as soon as the soft parts are fully dilated. Mangiagalli on the other hand advocates rapid evacuation of the uterus, and believes this to be the most important point in the treatment. If the case is a grave one the cervix should be forcibly dilated, and when this is impossible on account of an unusual degree of rigidity, Cæsarean section is justifiable, especially if the fœtus is living. Byers (Belfast) pointed out that the most probable hypothesis was that the convulsions were caused by a poison elaborated by the mother, or by the fœtus, which accumulated in the blood owing to some failure in the normal processes of elimination. The treatment he advised was the administration of morphia subcutaneously, the woman being kept upon her side, and all liquids by the mouth being withheld. Hot water or vapour baths, obtainable, should be used. If labor has not begun, the convulsion should be treated with morphia, but the uterus should not be excited and no attempt should be made to bring on labor. In the first stage of labor, when convulsions supervene, hydrostatic bags may be

employed if the cervix is soft and dilatable ; but if it is rigid, no local measures should be used. In the second stage of labor he advises delivery with forceps after the patient has been first anæsthetised.

It will be seen that there is still no general agreement as to the best method of dealing with eclamptic convulsions, and Veit's remark that many cases get well, whatever the treatment may be, shows how difficult it is to judge dispassionately the merits and the demerits of the various plans adopted, and to determine to what extent they really play a part in bringing about the recovery of the patient. The most difficult question to decide is whether the first stage of labor should be hurried and delivery rapidly effected, as advised by Charles, or whether it should be allowed to take its course as recommended by Charpentier and Byers. It is quite clear that unless the advocates of forced delivery can prove that their results are much better than those in which labor has been allowed to advance naturally, their methods will not find favor, as the risk of severe local injury from forced delivery is a real one. Further evidence is wanted on this point, and it is only by reviewing a very large number of cases that the matter can be finally determined, because the severity and danger of death in different cases of eclampsia varies enormously. Some cases even where convulsions occur at short intervals get quite well, while others, after only a few or it may be a single convulsive attack, rapidly die, although the treatment adopted may be precisely the same in both instances. Until more certain knowledge has been obtained as to the precise pathology of these cases we cannot hope to advance very far towards a rational treatment.

It is a very remarkable circumstance how slowly any improvement, although a very real one, make its way in this country. It is not too much to say that the advantages of axis-traction forceps have been definitely proved by theoretical and practical demonstration, and yet the number of practitioners who use these instruments form but a very small proportion of the whole. Dr. Milne Murray, in a paper on "Forceps with Adjustable Axis-traction" (*Edinburgh Medical Journal*, September, 1896), describes a new modification of his well-known forceps which permits of traction in the pelvic axis being made with still greater scientific accuracy. He points out that the ordinary axis-traction forceps only allows of traction being made in the pelvic axis when the pelvis is normal, but that when the axis of the inlet is more vertical than usual, as in the justo-minor pelvis, or more horizontal than usual, as in the flat

pelvis, some of the force employed is lost unless provision be made to allow the line of traction to be varied to suit the requirements of the altered canal. Of course, in cases of abnormal pelvis, if ordinary forceps are used the line of traction is still more faulty than with axis-traction forceps, and in order to do away with this "angle of error" he has devised a pair of forceps which will permit the line of traction to be altered to suit any given case of pelvic deformity. The forceps is identical with those used in the ordinary axis-traction instrument, and the traction rods are jointed to it in the usual manner. These rods run down the back of the handles, and at a point half way down they turn backward at a right angle, forming two horizontal bars four and a half inches long, with graduations at half an inch apart. A perforated block with a handle attached by a joint is slid along these horizontal rods and can be fixed at any point by a screw. By means of a sector which moves with the handle that position of the block on the horizontal rods can be determined which is necessary in cases where the pelvic inclination is normal; but if the axis is more vertical than usual, the block is moved forward nearer to the handles, and if the axis is less vertical it is moved backward away from the handles. By this means we can ensure that in all cases the line of traction corresponds with the axis of the pelvis.

In the same paper Dr. Murray discusses the difficulties met with in dealing with persistent occipito-posterior cases, and describes a special form of axis-traction forceps which he has devised. To bring about anterior rotation it is necessary to increase the flexion of the head, which is imperfect, and at the same time to draw down the head so as to bring it on to the sloping floor of the pelvis. Forceps with the ordinary pelvic curve, whether axis-traction or not, when applied to the head in this position, tend to diminish rather than to increase the flexion, and at the same time are very liable to slip off. The only modification that is necessary to allow the forceps to secure a firm hold and increase flexion, while at the same time they permit of normal rotation, is to lessen the pelvic curve by one-half. In other respects the forceps is of the adjustable axis-traction variety. This form of instrument has proved highly successful in the hands of Dr. Murray.

Dr. Berry Hart, in a short but interesting paper on the nature and diagnosis of so-called fleshy mole (*British Medical Journal*, October 24, 1896), discusses the symptoms and pathology of this condition. By the term "fleshy mole" is meant "a form of abortion where part of the aborting ovum, usually at or about the second

month, is retained for many months, and ultimately discharged in a much altered condition." As is well known, the altered appearance depends chiefly on hæmorrhages between the chorion and decidua. Dr. Hart regards the condition as a rare one, but I think few gynæcologists who see many cases pass a year without encountering at least one example of this disease. The first factor in the production of a fleshy mole is the death of the fœtus, and this is followed by shrinking of the chorionic sac and blood extravasation among the villi—that is to say, between the chorion and decidua scrotina and reflexa. As the result of the hæmorrhages, numerous small, rounded protrusions are seen when the interior of the sac is examined. The fœtus may entirely disappear, or may be represented by a small shrunken remnant. In most cases moles of this kind are expelled within six months of conception, but in some cases they have been retained until the eleventh month; but Dr. Hart has never met with any recorded case where retension has exceeded this period. The diagnosis of cases of this kind is not easy, and in some cases impossible.—*William J. Gon, M.D., in The Practitioner.*

# GENITO-URINARY AND RECTAL SURGERY

IN CHARGE OF

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## ARGONIN AND ITS PROPERTIES.

Argonin was first prepared in the Physiological Institute of the University of Breslau by Professor Dr. Rohmann and Dr. A. Liebrecht.

It is a silver-proteid compound, *i.e.*, a combination of the casein of milk with silver, in the form of a fine white powder which readily dissolves in water to an opalescent solution, on gently warming. This solution is characterized by not being precipitated by sodium chloride or by albuminous fluids.

In accord with these peculiar chemical qualities are various characteristics in the physiological action of Argonin, which distinguish it from silver nitrate, the salt so universally employed at present.

According to the bacteriological investigations of Dr. R. Meyer, Argonin is "a disinfectant of pronounced antiseptic properties." It completely destroys various bacteria, especially gonococci, even when the latter are present in albuminous fluids.

It possesses a marked advantage over silver nitrate in that it is non-irritating. As is well known, applications of silver nitrate to mucous membranes, such as that of the urethra, call forth irritation and frequently pain; these latter symptoms do not follow the use of Argonin. Nevertheless this new non-irritating silver compound possesses all the anti-bacterial qualities that make it especially adapted to the treatment of gonorrhœa.

Its effectiveness has been thoroughly demonstrated during the last two years in the dermatological clinic of Jadassohn in Breslau. It is especially recommended in the treatment of acute gonorrhœa of the urethra anterior and posterior of man, of the female urethra and uterus.

NOTE.—We have during the past year used this preparation of silver in about one hundred cases and are more than pleased with the results obtained. We have not had occasion to rely on strength greater than 5 per cent., though. In the acute stage we have had the discharge almost stopped and the gonococcus disappear in from four to ten days with a corresponding short period of entire disappearance of the discharge. This we are satisfied with and have not been able to procure so favourable results from any other line of treatment. The silver salts have been favorites of ours for some years but the nitrate is a painful injection, it coagulated the albumen and was not satisfactory.

Argentamine is less painful ; it does not coagulate the albumen, but we did not find it stable. While in argonin or caseate of silver we had an injection without pain, that did not coagulate the albumen and was eminently satisfactory in all respects.

We are indebted to Prof. Liebrecht of Breslau for a substantial sample of this preparation to conduct our first series of experiments.

# PÆDIATRICS AND ORTHOPÆDICS

IN CHARGE OF

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## A NEW TREATMENT OF POTT'S CURVATURE.

Calot (*Sem. Méd.*, December 23, 1896) reports thirty-seven cases of Pott's disease, cured without deformity, by forcibly correcting the curve as soon as it appears. He believes that all cases can be treated in the same way and with a like result. The patient is put under an anæsthetic, while four assistants pull the upper and lower extremity of the spinal column backwards, and the surgeon exerts strong pressure on the convexity of the curve. When the spine has thus been straightened a plaster jacket reaching from the head to the pelvis is applied. If it is impossible to correct the curve by these means, the projecting spinal processes should be removed. Exceptionally, however (in two out of thirty-seven cases), the posterior wedge of bone which prevents the vertebral column from being straightened must be excised. Then, after cutting through the bone anterior to the spinal canal, the column can be replaced in its normal position. Only five to ten months are needed for a cure, instead of two to three years, as under the usual treatment, and the occurrence of paralysis is largely prevented. Calot showed five children before the Academy of Medicine whose humps, after existing for six months to six years, had been treated by his method. In some no trace, in others but very little, of the former deformity remained. Photographs taken before treatment showed how marked the difference was.

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## ANTISTREPTOCOCCIC SERUM IN SCARLET FEVER.

A report is published by Rappapart (*Bolnitschnaja Gaz.*, Bolkina, No. 40) of his experience with antistreptococcic serum, and his



results are compared with those of Bagnisky and Josias. Bagnisky, as the result of a trial of Marmorek's serum, came to the conclusion that further experiments were desirable. Josias found that it did not have any influence on the course of the disease, unless it were that the necrotic angina had disappeared more quickly and the lymphadenitis resolved. Rappapart experimented with the carbolized solution of the serum from the Imperial Institute, containing 0.5 per cent. of phenol. He injected the solution in sixteen cases of scarlatina, amongst which were ten with severe complications (cellulitis of the neck, catarrhal pneumonia, necrosis of the nose, uræmia, etc.). The serum, even when injected repeatedly, had no influence either on the temperature or on the complications; four of the patients died.

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#### HÆMO-PERICARDIUM.

A very interesting case of hæmorrhage into the pericardium was reported by Mansell Moullin, at a recent meeting of the Clinical Society of London, and appears in *The British Medical Journal*, January 30, 1897.

This patient, a lad aged twenty, received a severe blow over the sternum, while playing football on March 28, 1896. He was able to go on playing for twenty minutes, but on arriving at his home he became profoundly collapsed. At nine p.m. on that day his pulse was fairly good, but the heart was apparently beating at about twice its usual rate. There was no increase of cardiac dullness, but there was some difficulty in swallowing and great pain on the left side. The breath sounds were very loud all over that side, and the temperature was 96°F. Thirty-six hours after the accident he was seized with a violent cough accompanied by profuse expectoration, and he perspired profusely. The pulse was 140 and the breathing 22 per minute. The area of cardiac dullness gradually increased until it spread to the right of the sternum. On April 22, three weeks after the accident, he was seized with violent dyspnœa, and then the whole of the left side of the chest was found to be distended and motionless. The heart sounds could only be heard in the right second interspace. He (the speaker) made an incision through the fifth left space, and exposed the pericardium, which was incised, and a drainage tube inserted. Altogether some six pints of blood escaped through the tube within the first three hours, and this clotted firmly in the basin. The dyspnœa at once disappeared, the tube was removed on the following day, and the patient was able

to sit up in a week. The left lung remained collapsed for a long time. The patient had recently returned to his duties as a postman, and had resumed football.

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#### PAROXYSMAL TACHYCARDIA IN A CHILD.

A case of paroxysmal tachycardia in a little girl of eleven years is reported in the London Clinical Society proceedings (*British Medical Journal*, January 16, 1897) by W. B. Herringham. The child was under observation from June, 1896, to September, 1896, and during that time had seven attacks. The history showed that she had been subject to similar attacks for at least five years. The paroxysms began suddenly without any adequate cause. They lasted for a period which varied from thirty-six hours to thirteen days, and the end of the paroxysm took place during sleep. During the attack the pulse was very small and soft, uncountable at the wrist, of a rate which, taken at the heart, was from 240 to 260; the heart was somewhat dilated beyond its usual size, and the pulsation was very forcible. It was at first productive of some præcordial distress, but not of acute pain. Respiration was rapid, and there was occasionally a little cyanosis, but no sign of pulmonary œdema. There was no anasarca of the legs. The urine during the attack was very scanty, owing doubtless to the low blood pressure. During the paroxysm sleep was restless, and did not alter the cardiac rate. Since the attacks ended during the night the actual moment of change was never witnessed, and it could not, therefore, be told whether this was instantaneous or a matter of hours. The pulse, which had been over 260 the night before, was found in the morning to be 90 or thereabouts, and the child professed herself quite well. The causes which excited the attack appeared to be either sudden effort or sudden movement, yet neither of a degree likely to produce any ill-effect upon ordinary persons. No valvular disease could be detected, nor was there any history of rheumatism in the child or in her family. There was no sign or history of syphilis, and the patient before the attacks was a big, plump, rosy girl, the picture of health. The heart, however, was permanently enlarged, and the writer suggested that there might be adherent pericardium, and that the myocardium itself might as the result of some former disease be unhealthy. From a study of the literature of the subject, and from watching the present case, he was disinclined to believe that these hearts were structurally healthy, and he thought that the change in them might originate in three ways. In some cases it might be due

to acute myocarditis, as in those which had been seen in rheumatic people ; in others it might be due to degeneration of the muscle itself, either syphilitic, as probably in two of the recorded necropsies, or fibrotic, whilst in a third class it might be primarily due to nerve degeneration, as, in some cases, noted after infectious fevers. Various modes of treatment were adopted, digitalis, nitrite of amyl, atropine in large doses, pressure upon the vagus nerve, treatment of the stomach and intestines, had all proved useless, or if one had at one time seemed to cure it failed to repeat the performance. Schott's treatment (baths and exercises) neither reduced the size of the heart, nor prevented the occurrence of the paroxysm.

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#### HOW TO STOP THE INFLAMMATION FROM VACCINATION WHEN RUNNING TO EXCESS.

The *British Medical Journal*, January 30, contains a communication from Clement Lucas, F.R.C.S., directing attention to the importance of preventing excessive inflammation in connection with vaccination, and describing a plan of treatment which will completely check the inflammatory process. Cases where there is much local reaction are seized upon by those opposed to vaccination and much capital is made out of them. The author directs that, in the event of the pustules tending to become confluent on the twelfth or fourteenth day and the inflammatory zone to spread with perhaps enlargement of the axillary glands and œdema of the arm, the area of the pustules should be powdered over with iodoform and a sterilized dry pad be applied to keep the powder in position and the pustules from irritation. The process is controlled in twenty-four hours. The pustules dry into a cake, the redness subsides, the glands decrease, and the œdema of the arm rapidly disappears. This treatment the author considers in every way preferable to hot fomentations or antiseptic moist applications.

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#### TREATMENT OF INFANTILE BRONCHO-PNEUMONIA.

The success obtained by cold water applications in the treatment of infectious diseases of children, and especially of broncho-pneumonia, is becoming daily so accentuated that the method has gained the favor of the most enlightened amongst practitioners, and is well received by the public. Dr. Albert has just published a new series of cases which cannot fail to convince the most sceptic, and to give courage to the most timid. In succinct detail he describes the *modus operandi*, which is as follows : The child is stripped to the

waist, and a piece of gauze (tarlatan) folded in six or eight doubles, and so cut that it reaches from the clavicles to the umbilicus in front and to the sacrum behind, and wide enough to overlap in front, is steeped in hot water, so as to remove as much of the starch as possible, and when properly wrung out it is plunged again into cold water (the temperature of the room). The gauze is then squeezed as much as possible, and applied around the thorax and the upper portion of the abdomen; a piece of oil-silk of the same size is placed over this so as to prevent evaporation. The child is then dressed and put to bed. At the end of half an hour the application is renewed, and so on as long as the symptoms (temperature over  $100^{\circ}$ , with vesperal exacerbation, agitation, quick-breathing, etc.) require it.

There exists no contraindication that these wet compresses should be always tried.

According, however, to the thèse of a distinguished pupil of Prof. Lemoine, of Lille, this latter prefers in his practice warm bathing in the treatment of the same affections, asserting to have derived from it greater advantages than from the method above described.

The temperature of the baths should oscillate between  $97^{\circ}$  and  $100^{\circ}$ , the child being plunged in it up to the neck. To avoid congestion of the face and brain, cold applications are applied to the head. The bath lasts ten minutes, and before putting the child into it a spoonful of some stimulating mixture is given. When taken out the patient is rapidly dried and wrapped in flannel. The treatment may be renewed twice or three times daily.

Mustard baths are ordered where the condition of the patient causes grave anxiety; about a quarter of a pound of ordinary coarse-mustard is blended with a little cold water at the bottom of the bath and the hot water added.

These baths are always indicated in broncho-pneumonia, and pneumonia as well as capillary bronchitis. The effect of these baths on the child is most favorable; the respiration becomes more tranquil, the pulse less rapid, and most beneficial sleep intervenes.

Prof. Lemoine affirms to have thus treated thirty-three cases of broncho-pneumonia without losing one patient.—*Medical Press.*

# PSYCHIATRY AND NEUROLOGY

IN CHARGE OF

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## THE ABUSE OF NERVOUS STIMULANTS.

The *Therapeutic Gazette* in an editorial calls attention to the fact that both the medical profession and the laity have been accustomed to the use of alcohol as a nervous stimulant. This excessive use has hardened some to its evil effects, while others go to the opposite extreme in condemning it. There is an ever-increasing number of substitutes for alcohol thrown upon the market, such as coca, kola, etc. Many of these substitutes contain a large amount of alcohol and the consumers of them become addicted to the alcoholic habit without being aware of the fact. The temporary changes for the better which the consumer notes after a dose of his favorite remedy are usually due to the alcohol, it contains. We are accustomed to consider the wide-spread use of nerve stimulants to the rush and pressure of modern life, but history shows that for many hundred of years nerve stimulants have been used and abused much as they are to-day. The abuse of these remedies by the profession is rather the result of carelessness than of ignorance. They should be used only as temporary make-shifts, as in the vast majority of cases they materially increase the discomfort and ill-health of the patient. All the so-called "strengthening remedies," which enable a man to accomplish more work when he is under their influence, do this, not by adding units of force to his body, but by utilizing those units which he has already obtained and stored away as reserve forces. The result will be the same as in the case of a banker who draws upon his capital or reserve funds to supplement the money with which he, if properly employed, can carry on his business. The result is in the latter case a pecuniary, and in the former a nervous bankrupt.

## MENSTRUATION IN ITS RELATION TO INSANITY.

Dr. E. H. Howard, Superintendent Rochester, N.Y., State Hospital for Insane, says in *Hospitals Bulletin* that the menstrual record at a State hospital, being based upon correct data and personal observation, presents exceptional opportunity for reliable deductions. He concludes that a careful tabulation and study of the forms of insanity from which the total number of patients have suffered, fails to elicit any facts which seem to ascribe any particular form of mental disease with a causative relation to abnormalities of the menstrual function. In a general way, it is proper to state that during the acute stages of all forms of insanity the regularity of the menstrual functions is impaired, and in many cases of acute mania cessation is concomitant with the mental disease. Reference is not made to those cases in which insanity is caused (?) by cessation of the menses. When the irregularities of menstruation occur in the course of the mental disease, in a similar manner to which they may occur in many other diseases, regularity often returns without being accompanied by the restoration of mental disease.

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## SULPHONAL AS A SEDATIVE.

Dr. A. W. Hurd, in the *State Hospitals Bulletin*, furnishes interesting notes on the use of sulphonal in Buffalo State Hospital. A group of twelve cases were selected, all of whom were women who were showing and had exhibited for a considerable period marked mental and physical disturbance; those few, in fact, who by their excitement, disturbance, and tendency to noisiness were sufficient to render the disturbed wards at times noisy and uncomfortable for others; they being cases which had largely resisted other means of control and had not responded, either in the matter of quietness or sleep, to the means ordinarily used. The method was simply the administration of a moderate dose of sulphonal *each morning* before breakfast. The dose used was from 20 to 30 grains; was given at 6.30 in the morning, always in a hot solution, and was followed by no other administration of this nature whatever till the following morning. The effect was a sedative one throughout the day, but not sleep; in addition, however, these patients as a rule slept well the following night without another administration of any drug. The slow action of sulphonal is well exemplified in this; that its hypnotic effect was not manifested till the evening of the day of administration while the patients were rendered comfortable during

the daylight hours. The effect in general was to check activity, excitement, and physical waste, giving a much better chance for repair and nutrition. No untoward effects whatever were observed, the condition of the patient being under observation continually. The administration in none of the cases extended over a month continuously, and in the cases of acute mania the necessity for it was past before the expiration of that length of time.

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#### NEURASTHENIA.

Dr. Neff summarizes his paper in the *Physician and Surgeon* as follows: (1) Neurasthenia is a nervous disease having distinctive features and well-marked diagnostic signs. (2) Neurasthenia may be the outcome of various other functional and organic affections; therefore it is divisible into two forms—(a) simple neurasthenia and (b) symptomatic neurasthenia. (3) The symptoms of neurasthenia are dependent on nervous exhaustion. Experimental physiology would indicate that this is coincident with changes in the nerve cell induced by fatigue. (4) The etiology of neurasthenia is divided into predisposing and exciting elements. In the former, heredity has an important role, the prominent exciting cause in the latter being fatigue. (5) The prognosis in the uncomplicated form is good. In the so-called “degenerative form” and in elderly persons relapses are frequent. (6) The treatment of neurasthenia has as an essential feature the employment of rest in some form, associated in some cases with dietetic, electric, and hydropathic treatment, and the use of appropriate drugs to combat symptoms.

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#### BULLETS IN THE BRAIN REVEALED BY “X” RAYS.

Dr. Willy Meyer presented at a recent meeting of the surgical section of the New York Academy of Medicine a patient, a young man, who had attempted suicide by shooting himself in the right temporal region. He was taken to a hospital, where he was trephined and the depressed bone was raised. Motor symptoms manifested themselves in the left arm and leg, pointing to an injury in the motor area in the right hemisphere. Dr. Meyer saw him and attempted to have X-ray photographs taken, and succeeded, by using both side and front exposure, in revealing three spots on a line with one another, one of them on the left side of the brain, two of them supposed to be a divided bullet or two bullets, and the third a splinter of bone. Possibly the third was also lead. Their removal was

regarded as impracticable, and nothing further was done. An interesting feature in the case was the falling out of the hair on the left posterior fourth of the head as result of exposure to the X-ray.

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#### EXCRETION OF URIC ACID IN EPILEPSY AND THE EFFECTS OF DIET AND DRUGS ON THE FITS.

Dr. A. Haig in *Brain* argues that there is a causal relation between uric acid and epilepsy. The fits of epilepsy, he asserts, bear an extremely close relationship to the uric acid headache (migraine), and like this are probably functional disorders due to altered circulation in the brain. The headache is controlled with almost absolute certainty by a diet which frees the blood from excess of uric acid. Dr. McEnroe, in the *Medical Record*, also urges that diet is of great importance in the treatment of epilepsy. The pyloric sphincter of the stomach is often greatly relaxed and the food passes rapidly into the small intestines, which are also relaxed. This may account for the ravenous appetite of epileptics, so that they bolt their food down without proper mastication. Animal food aggravates this condition and should not be taken. The patient should take at least three-quarters of an hour for each meal. If meat is allowed at all it should be taken in the morning and never at night. The bromides of potassium and sodium owe their efficacy to the fact that they paralyze those peripheral irritations which cause the convulsions and other manifestations. Great care must be exercised in the use of the bromides, for these drugs can diminish the normal excitability of the body. If given in excess they impoverish the blood, producing a tendency to extravasations, and cause an acne-like eruption on the face. The patient becomes sluggish in his movements and has loss of memory. They should always be given largely diluted with water, and always after taking food. Cod liver oil is a powerful adjuvant in the treatment of epilepsy. It offsets the injurious effects of the bromides, and may be combined with small doses of phosphorus about one one-hundredth grain for each dose. If the acne is very severe from continuous use of the bromides Fowler's solution of arsenic in five-drop doses is very effective. The compound spirit of ether in drachm doses is very useful when the attacks are always nocturnal. Many cases of *le grand mal* are greatly improved when the strictest rules of diet are observed and particular attention is paid to keeping the intestinal canal in an aseptic condition by the occasional use of cathartics, salol, etc. The manifestations of *le petit mal* are not so readily controlled.



Epilepsy is sometimes due to an intracranial cause manifested by fibrillary twitching of the facial muscles during the night. Corrosive sublimate in one-twenty-fourth grain doses should be given three times per day. The convulsive attack, if taken in time, can often be prevented by producing some powerful impression on the surface of the body, such as a sharp slap. For the excessive irritability of the skin the application of capsicum liniment is recommended.

# HYGIENE AND PUBLIC HEALTH

IN CHARGE OF

**WILLIAM OLDRIGHT, M.A., M.D. Tor.,**

Professor of Hygiene in the University of Toronto ; Surgeon to St. Michael's Hospital

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## THE CLIMATIC THERAPY OF PULMONARY PHTHISIS.

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BY **J. FRANK McCONNELL, M.B., (TOR.)**

LAS CRUCES, NEW MEXICO.

Late House Surgeon of St. Michael's Hospital, Toronto.

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The effects of climate are so frequently referred to in medical writings and the term so often used in a comprehensive sense, that it may be well to consider what the science of climate really is. According to Dr. Julius Hann the definition of climate may be summed up as "habitual weather." Thus what we mean by the climate of a particular place is the prevailing and characteristic weather of that place. The meteorological phenomena characterizing any locality are in their turn dependent upon altitude, moisture, latitude, prevailing winds, soil, and topographical peculiarities of the neighborhood. The resultant of these facts constitutes climate, which, therefore is synonymous with the prevalent weather of a place. From meteorological tables, geographical and other data, a general opinion can be derived as to the nature of the climate and whether it is favorable or unfavorable to health. In most cases, however, it is found that there are strictly local conditions which may seriously affect the salubrity of a particular resort, such as too much shade, bad drainage, poor water, malaria, etc., which should enter into consideration in determining whether a given locality is or is not the best place to send a special case, which can only be ascertained by a personal examination by disinterested parties, I would therefore call attention to the responsibility assumed by a physician in sending a patient a long distance from home, merely with a vague idea of the benefit to be derived from a change, without precise knowledge of the place or accommodations which the patient will find during

his journey, or at his destination. In the climatic treatment of pulmonary phthisis, a leading medical work of the day points out, that there are three essential features in the ideal climate, viz. : Pure air, equable temperature, maximum amount of sunshine : we therefore see in this consideration that altitude and atmospheric dryness are not viewed as essentials. In my opinion dryness is not only an "useful adjunct" but a most important factor in the climatic cure. "Tubercle cannot live without moisture," (Baumgarten) a moist air therefore nourishes, a dry air tends to destroy it. The breathing of pure, dry air, not by fits and starts, but constantly, constitutes what we desire. In regard to altitude, the physician must decide in each case as to suitability, as much depends upon the physical condition of the patient. It is commonly known that there is established a certain immunity from phthisis in mountainous districts. The geographical and climatic conditions as found here in Las Cruces may be taken as a type of Southern New Mexico, one of the districts which in my opinion ranks first in providing the requisites of a suitable climate for pulmonary troubles. Las Cruces is situated in the lower valley of the Rio Grande, being completely surrounded by mountains, distant on all sides about fifteen miles. The elevation is approximately 3800 feet. As it is a part of the arid belt, dryness is assured, there being no winter rains. The days are nearly all sunny and outside of the town, among the alfalfa fields, there is practically no dust. In summer the thermometer seldom reaches 110 degrees Fahrenheit, which must be considered as dry heat. The mountains afford a cool retreat. The heat is in no case as extreme as in Arizona, and sunstroke is unknown, the humid atmosphere at 85 degrees in the East seems less desirable. Of course, for those who can afford to travel, Colorado, or Northern New Mexico present pleasant, cool summer resorts. Santa Fe, New Mexico, being the coolest summer meteorological station in the United States.

NOTE.—Dr. McConnel writes us that he will be glad to give attention to communications from physicians relative to the suitability of climate, accommodations, etc.

## Editorials.

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### BRITISH MEDICAL ASSOCIATION.

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IN our last issue we referred to the meeting of the council of the British Medical Association, held in London, January 20. Many matters connected with the Montreal meeting were carefully considered. We had hoped to receive a complete list of those appointed as readers of addresses, and as presidents of sections, in time for insertion in this issue; but it has not reached us yet. This much, however, we can say, that the council at home has decided that there shall be eleven sections: Medicine, Surgery, Gynæcology and Obstetrics, Anatomy and Physiology, Pathology and Bacteriology, Pharmacology and Therapeutics, Public or State Medicine, Psychology, Laryngology and Otology, and Dermatology, and that the list of presidents of these various sections will comprise the names of a greater number of distinguished men than has been the case at any previous meetings of the association, the meeting in London itself, perhaps, excepted.

We learn from the local secretary that the other colonies of the Empire are showing great interest in the forthcoming meeting, and that letters received from Australia and the Cape, not to mention British possessions nearer home, such as Bermuda and Barbadoes, show that the profession there will help to increase the success of the meeting. The profession in Montreal are pleased that the efforts made by the Local Executive to render the meeting national rather than local are being so highly appreciated throughout the Dominion.

No steps have as yet been taken to ask for subscriptions outside Montreal, and unless the meeting attains enormous dimensions it is probable that nothing more will be attempted. We are informed, however, that a leading member of the profession in Manitoba had offered no less than \$100 in aid of the expenses of the meeting. We are asked by the secretary of the museum sub-committee to state that although many applications for space in the

museum building have been received, the space for which tenders are asked will not be allotted until March 27th, in consequence of the necessary length of time required for correspondence with British exhibitors.

We are glad to be able to announce that the Canadian Pacific and Grand Trunk railways have agreed to extend to Canadian members of the association the privileges granted to foreign members and to guests, namely, half rates. Such a concession has never been previously granted, and is a sign of the great national importance attached by the companies to the meeting in August. In other words, to quote the words of a joint letter received from Mr. W. E. Davies, of the Grand Trunk, and Mr. D. McNicoll, of the Canadian Pacific: "It has been decided to extend to Canadian members of your association the same basis of rates to and from the convention, and excursion fares, as we have already advised you we are willing to extend to visiting members from over the sea." Practically every Canadian member can thus attend the meeting and return at the rate of a single fare for the journey, and can join the excursions at the same rate.

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#### THE AMERICAN SOCIETY OF SUPERINTENDENTS OF TRAINING SCHOOLS FOR NURSES.

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THE fourth annual meeting of this society was held in Baltimore on February 2. It numbers ninety members, and the opening session was well attended, delegates being present from all parts of the United States and Canada. We learn from the address of the president that there are now something like 250 training schools in the United States and Canada. Miss Nutting spoke as follows:

"These schools are teaching the sterling virtues of obedience, self-control, perseverance, accuracy, and economy. Many of the women who come to us purposeless, undisciplined, and dependent, go away at the end of their term strong, skilful, resolute women, able to stand alone and help others to stand also.

"We say that to raise the standard of life you must raise the standard of motive, and the work of reformation of the vital conditions of existence in the homes and families of the masses can in no way be better reached than by those who can bring a healthful influence to bear. I shall always hold that the district nurse, provided she is the right woman, can do more for the improvement of a

household and family than all the sermons or tracts that were ever written."

Speaking of the overcrowding of the profession, she said that the nurses would have to do as physicians—namely, extend the length of term of study, require more rigid examinations, and add to the curriculum. She then went on to elaborate her views on these important aspects of the subject. Many interesting papers were read, and free discussions followed in all instances.

The citizens of Baltimore showed much kindness in a social way. On the afternoon of the first day the members attended a reception by Mrs. Charles J. Bonaparte, and were much interested by their inspection of the heirlooms of the Bonaparte family. On the same evening they attended a reception by the trustees and officers of the Johns Hopkins Hospital. On the afternoon of the second day they attended a reception by Mrs. Osler, wife of Professor Osler. Other receptions were tendered in various parts of the city. We are informed, however, the regular work of the various sessions was in no way neglected. The members of the association are very enthusiastic, and are determined to make their organization a decided success. The president-elect for next year is Miss M. A. Snively, the superintendent of the Training School for Nurses in the Toronto General Hospital. The next meeting will be held in Toronto.

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#### DEATH FROM CHLOROFORM.

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**D**EATH occurring from the administration of an anæsthetic is always a distressing circumstance, both to the physician and the patient's friends. It is doubly so when the administration has taken place without friends being present or having knowledge of the fact that the circumstances necessitated such a procedure. In accident cases, where local anæsthesia is not practicable, and urgency demands immediate action, it is perfectly admissable to administer an anæsthetic. Unless the urgency is great, friends should be made aware of the condition before any operation is undertaken. A death from chloroform, administered for an injury to the finger, occurred lately in Brantford. We regret exceedingly the sad occurrence, and the unpleasant position of the physicians concerned. This is possibly a good opportunity to point out the great advantage of local anæsthesia in these cases.

Local anæsthesia, when properly produced, is void of danger. Schleich's fluid produces complete local anæsthesia in a very few minutes, lasting long enough to perform minor operations about the extremities, and is free from danger. The patient, who has his senses, can be consulted about the extent of the operation should that be necessary. Local anæsthesia has one other advantage, besides being free from danger, in that it tends to make the surgeon more conservative. Conservative surgery, of the hand especially, is good surgery, and in these days many a finger can be saved that in pre-antiseptic days had to be sacrificed. We wish to urge on the profession the importance of local anæsthesia for the minor operations for their own as well as for the patients' welfare.

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### SICKNESS AND DEATH FROM ILLUMINATING GAS.

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THE necessity which has frequently been pointed out for some means for lessening the death rate due to illuminating gas has been again emphasized by a recent sad occurrence.

It is now about twenty years since the deaths from this cause began to be so much more frequent. In 1885 the State Board of Health of Massachusetts collected and published a large amount of valuable information on this subject. In reply to a circular issued to 189 cities it transpired that forty-five cases of fatal poisoning had occurred in seven and a half years in cities using the then newly invented water gas, as against forty cases in twenty-one years in cities using coal gas. Experiments as to the relative lethal effects of the two gases were also made by placing some dogs, cats, rabbits, etc., in two separate rooms alike in size and all other respects, and furnished with gas burners of equal delivering capacity, the only difference being that into one room water gas was introduced, through the burner, and into the other, coal gas. In the room with the water gas deaths began to occur in three hours, and all were dead in eight hours; in the other, all were alive and capable of being aroused in eight hours, and even in twenty-four hours only two were dead. A very important clinical point is that in a hotel or other dwelling, a person subjected to the influence of gas, made from coal, would generally be discovered before this more slowly acting gas had placed him beyond the power of recovery; whereas water gas acts so much more rapidly that a person is frequently dead or beyond hope when the accident is noticed. The different effect of the two gases was pointed out to be due to the amount

of carbon monoxide (CO) being so much greater in water gas than in coal gas, the relative average percentages being 27.40 and 5.53, respectively; and this explanation has been upheld by various observers up to the present time. In Toronto, the illuminating gas supplied is said to be a mixture of coal and water gases, the relative proportions varying at different times. It is stated that the mixture has lately contained about twelve per cent of carbon monoxide.

The advocates of water gas have tried to offset its poisonous character by claiming for it as an advantage that it is less explosive than gas made from coal, on account of its smaller percentage of marsh gas. The force of this contention does not count for much, especially in view of such accidents as the fatal explosion in Boston this month.

The pathological condition in these cases of poisoning has long been known to be due to the much greater affinity of the hæmoglobin of the blood for carbon monoxide than for oxygen. The hæmoglobin, by degrees, ceasing to carry oxygen from the lungs to the tissues. It was, until recently, the general belief that the resulting carboxyhæmoglobin was so stable a compound that the carbon monoxide was never dissociated from the hæmoglobin until the blood corpuscles with this hæmoglobin underwent a disintegration. In a discussion at the meeting of the British Medical Association last autumn the opinion prevailed that this view, held by Claude Bernard and others, must be modified, inasmuch as the observations and experiments of Schutzenberger, Saint Martin, and Haldane, show that the carbon monoxide in the presence of oxygen is slowly converted into carbon dioxide. But the fact remains that the greater the amount of carbon monoxide the more severe and persistent are the effects, and that in many cases serious disturbances of the nervous and circulatory symptoms will persist for weeks or months.

It has been noticed from time to time, and in various places, that chronic poisoning from leaks of illuminating gas is by no means uncommon. That nervous prostration, nausea, chilliness, sore throat, and other symptoms are produced by it, and erroneously attributed to overwork, indigestion, etc.

The preventive aspect of this subject is one that deserves serious consideration. Amongst the causes of the fatalities are the following:

(1) The character of illuminating gas, which has been fully discussed.



(2) Inadvertence in extinguishing it ; blowing it out, or turning it out and then inadvertently turning it on again.

(3) Defective burners, in which the stop pin has dropped out or worn off, or in which it turns below the shoulder.

(4) Burners in which the tap turns too easily, and allows of a slight touch turning it back the wrong way.

(5) The absence of automatic burners.

(6) The practice sometimes adopted in hotels of turning the gas off at the meter at midnight, and turning it on again in the morning for the use of the servants, some hours before guests are discovered asphyxiated.

As regards precautions against these causes, it may be observed :

(1) It is a question for jurists and legislators to consider to what extent a corporation, for the financial benefit of its members, subscribers, or even customers, should be permitted to supply a dangerously poisonous compound, or whether persons who have not used due skill, care, and caution, or who may be somnambulists, or sleepily stupid on retiring, should be liable to the death penalty, in order not to disturb the best financial results. It does not seem unreasonable, at any rate, that those who manufacture and supply the poisonous gas should shoulder a large portion of the responsibility of seeing that the individual user, for the time being, is so circumstanced that the danger may be at a minimum. The inspector who comes to see how much gas has been burned might also rapidly inspect each gas fixture, spot defective burners, and see that sliding chandeliers have not gone dry. He need not necessarily inspect every burner each quarter ; in private houses especially he will soon know where frequent inspection is unnecessary.

(2) Many hotel-keepers take great care to post printed instructions ; and also to warn guests whom they suppose unaccustomed to gas fixtures.

(3 and 4) Might be obviated by a periodical inspection by some official of the gas company or of the health department.

(5) Some gas burners have been invented by which the flow of gas is cut off in the absence of the heat of the gas flame. Sufficient effort and observation in connection with the use of them is still wanting on the part of executive health authorities.

(6) The practice referred to above ought to be stopped, so far as public houses are concerned, by municipal action. The object is sometimes economy, sometimes a mistaken effort to avoid accidents.

(7) Although ventilation by fanlights is, in some cases, objectionable, yet until some method of insuring against the escape of

unburned gas is in operation, it would be desirable to insist that every room in a hotel should be provided with an opening above the door, so that the odor of escaping gas may be detected ; and that the management of the hotel should by a lock keep these fanlight openings unclosed, unless a guest (who may prefer to get his supply of breathing air fresh from out doors) specially requests them closed, and the management is convinced that he is possessed of the necessary qualifications to insure against an escape of unburned gas.

We do not desire to dogmatize on this subject, and do not claim that our suggestions are the best that can be offered, or that they may not be improved upon when tested in practice ; but we do think it time that some of them should be put in force, and that some greater interest should be taken in the subject by legislators, executive officers, and the public generally.

We will in our next issue refer to some other points in connection with this subject which are of interest from a therapeutic standpoint.

W. O.

## Correspondence.

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### “ DOCTOR OF REFRACTION.”

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To the Editor of THE CANADIAN PRACTITIONER :

DEAR SIR,—The title “ Doctor of Refraction ” is used so as to mislead the public. The diploma is given by a man or men who have no more right to do so, from a legal or medical point of view, than any man who walks the streets. There is nothing to prevent any man, who may wish to make a little money, advertising to give such a diploma. There is no corporation connected with any of the medical colleges which gives such a degree. The whole thing, in other words, is a farce, and originated so as to delude the public with the idea that by going to a man calling himself “ Doctor of Refraction ” it is going to one who has been properly trained. The public being thus fooled and patronizing these men liberally acts exactly as the promoters, the optical companies, wish, and hence a sale of a large number of spectacles. This is the commercial side of a medical question of serious import to the people. Glasses are always given if the person can be got to buy, scarcely the slightest care being taken as to whether the eyes are suitable for glasses. Even if proper care were exercised, which is not, still the “ Doctor of Refraction ” is so thoroughly ignorant that it is quite impossible for him to be a judge. Thus you see a man is treating the eye who knows really nothing about it. As a consequence, great danger results from many causes. One is that a diseased condition of one or more parts of the eye, deeply seated, may be present, which can only be made out by the oculist, and glasses being advised, for it is the “ Doctor of Refraction’s ” business to sell glasses almost as anyone would tape or groceries, a most injurious thing is done.

These “ Doctors of Refraction ” are so ignorant that they know just enough to be exceedingly dangerous. I can’t understand why such a stringent law has been passed and enforced, we will say in reference to plumbing, that no one but a plumber is allowed to do

this work, and at the same time any Tom, Dick, or Harry is allowed to treat the eye, for giving glasses must of necessity act upon the whole eye—and apparently the law and public opinion allow it to go on. It seems as if the climax of false pretensions had almost been reached when the “Doctors of Refraction” endeavor further to impress the public by going through the form of using the ophthalmoscope.

In my next, if this is insisted upon, I shall speak of the position the public and medical profession take, and should take, with regard to this matter.

G.H.B.

To the Editor of THE CANADIAN PRACTITIONER :

DEAR SIR,—Will you kindly give space to the following in an early issue, and thus aid in this important work? Of course, without the co-operation of the leading medical journals, nothing can be accomplished in that behalf. Trusting you will so favor, I may hereby thank you in advance, and am, sir,

Very truly yours,

EDWARD PLAYTER.

To members of the medical profession individually, in the interests of medical science :

As there is evidence tending to prove the theory that all persons predisposed by heredity to consumption have a respiratory capacity or action insufficient for good, vigorous health, probably a proportionately small chest, with insufficiency of lung membrane; that the predisposition is mainly or primarily due to this cause; in other words, that the insufficient respiratory function is the special primary feature of the predisposition (a condition which may be, practically, acquired by habit, occupation, etc.); I desire the co-operation of the profession in an endeavor to help to establish, by means of collective investigations, the correctness, or otherwise, of this theory.

In this behalf I hereby ask all physicians who have patients predisposed to, or in the early stage of, consumption, to send to me on a post card (will suffice) the information below indicated. As soon as I can study and collate the replies I shall make the results known to the profession.

Give (1) name (or initials); (2) sex; (3) age; (4) occupation; (5) height; (6) weight (average, when in usual state of health); (7) circumference of the chest on a level with sixth costo-sternal articulation, when momentarily at rest after an ordinary expiration,

and also (8) after habitual natural expansion or inspiration (which last (8) usually exceeds the first measurement, expiration (7), by an increase of only about one-fourth of an inch); finally (9) the circumference after a *forced* expiration, and also (10) after a forced inspiration (these two measurements, (9) and (10), varying or showing a range of from  $1\frac{1}{2}$  to 4 inches). The patient should, of course, be as calm as possible, and had better, usually, practise the *forced* breathing for a few acts before these two last measurements, (9) and (10), are taken.

To be of value, all four measurements should be taken as carefully, accurately, and free from haste as possible.

Any further information, in brief, as to degree of heredity (family history) in cases, *prominent* symptoms, loss in weight, cough, dullness on percussion, etc., etc., or any remarks. will be a decided advantage.

Measurements of two cases, or several, or the average, could be given on one card.

With the hope that many will comply with the above request, and with much respect for and interest in the profession, I am,

Yours truly,

EDWARD PLAYTER, M.D.,

(Address) Ottawa, Ont.

# Meetings of Medical Societies.

## TORONTO CLINICAL SOCIETY.

THE February meeting was held in St. George's Hall. President Allen Baines in the chair.

Dr. F. L. M. Grasset reported a case of

### AMPUTATION AT THE HIP-JOINT.

Patient, carpenter. Last spring, first symptom, pain in the groin, was noticed, gradually extending to thigh, accompanied by swelling. In three weeks he was obliged to go to bed. Glands in groin were enlarged and hard. The swelling was most marked in the centre of the left thigh, especially on the outside of the bone. He was kept in the hospital some months, but did not improve. As fears of malignancy were entertained by the surgeons who examined patient amputation was done at the hip by Furneaux Jordan's method. Wyeth's pins were used, digital compression employed, making the operation bloodless. Recovery was complete. Mortality in pre-antiseptic days was about 87 per cent.; now 34.4.

### OPERATION FOR NEGLECTED FISTULA

was the title of a paper by Dr. G. A. Peters; the method he employed had been in vogue formerly, and was used in cases where the internal opening was near the outlet, the fistula narrow and indurated, with an external opening some distance from the anus, and not causing more inconvenience to patients, perhaps, than emitting a little moisture. It might be as deep as the gluteus maximus and extend out six inches. The history and treatment of three such cases were given by the essayist. The whole sinus was laid open, the whole tract of the sinus dissected out, and this large wound stitched up with deep sutures of silkworm gut, approximating the surfaces throughout. A catheter placed in the rectum is of much value, allowing flatus to escape. In these cases the wound healed by first intention, although Allingham says it is almost impossible to prevent fæces from getting into the wound.

Dr. Primrose stated that one reason fistulæ did badly often was because all their branches were not reached and scraped at the time of operation. He thought the method suggested in the paper might be applied in treating other fistulæ. He had treated a fistula in the perineum which extended into the ischium in this way with success.

#### SPINAL CARIES : LAMINECTOMY FOR CORD PRESSURE

was the title of a paper by Drs. D. C. Meyers and A. Primrose. Dr. Meyers said : In the three generations of patient's family a case of Pott's disease existed. The girdle pains, changes in the reflexes and sensory disturbances were referred to. The appearance of kyphosis confirmed the diagnosis.

Dr. Primrose presented charts after Quain showing the sensory areas and the relation of the exit of the nerves to the bodies and laminae of the vertebra, also charts showing transverse and vertical section of the body through the abscess. A detailed description of the operation was given. Patient did well for some weeks, when meningitis supervened, causing death. Material from the cavity showed the bacillus tuberculosis, and a diplococcus. At the p.m. an examination was made of contents remaining. Cultures proved sterile.

Dr. Peters discussed the case.

The society then adjourned for refreshments.

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### TORONTO MEDICAL SOCIETY.

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**T**HE Toronto Medical Society met on the 11th of February.

#### CHOREA : TREATMENT BY TRAINING.

A paper thus entitled was presented by B. E. McKenzie and H. P. H. Galloway. Their first practical acquaintance with this treatment of chorea arose from having a boy in their gymnastic class who was not only suffering from roto-lateral curvature, but from chorea as well. After the first lesson improvement was noted, and in a week (there being daily lessons) a cure was effected. Three other cases were observed, two of these only for a time, without results. The third, a girl of eleven, had suffered from chorea two years, and had ceased to improve some months before training was commenced. Cure in three weeks. The opinions of the various authorities who had employed this treatment were cited, all of which were commendatory.

Dr. A. McPhedran said it had been stated that this form of

treatment was suited more especially to chronic cases. It had been further stated that this treatment had been in use for fifty years by the leading French neurologists. It was a matter of surprise that the English authorities had not referred to it before. He would be dubious about its use in acute cases; and where there were fever, emaciation, and concurrent inflammatory disturbance it would not be wise to use it. His plan of treatment has been rest and seclusion. This was better than arsenic, or any other form of medication.

Dr. H. Walker thought the principle of treating chorea by training a good one. In acute cases it was necessary to be cautious with the exercises. The majority of the cases he saw were chronic. He had always isolated them, using massage and passive movements from the beginning. In about ten days the resistive exercises were commenced.

Dr. Oakley thought, owing to the alliance of chorea to insanity, these exercises might be used in the latter condition. He thought treatment by isolation a bad one. He had always allowed his patients (and he had had a good many) to take as much nourishment as possible. He had administered arsenic.

Dr. McKenzie said this treatment had been used in the treatment of the insane and of criminals with much success. The virtue of the method, according to Professor Blache, was that passive-movements had a remarkable effect. At first the patient's will came into play, either assisting in the movement or the contrary. Little by little the muscles became habituated to associated action, directed by the effort of the operator. The will, which had exercised but a feeble control over the muscular system, gradually seemed to resume its function, and it was then seen that incoherent movements, little by little, diminished in frequency and intensity.

Dr. W. J. Wilson, read a paper on

#### DEPRESSION OF THE OCCIPITAL BONE.

Marion Sims had first called attention to a fatal form, trismus nascentium, some fifty years ago, but Lockjaw of infants had been described from earliest times. In the south, among the negro children, in some localities, two-thirds of the deaths were due to this cause. Among the causes spoken of were: bad ventilation, suppuration of the stump of the cord, heredity, etc. But Sims had observed that the occipital bone and occasionally the parietal were displaced, and if the condition was corrected early the cases might be cured.

The essayist reported a case from his practice. The third day after an easy labor the child was noticed to have lost the power to



suck ; its thumbs were turned into the palms of the hands, the legs were crossed ; it kept up a whining cry, and every few minutes its muscles became rigid and there was a convulsive twitching of the whole body. The nurse had been carrying it about, and jolting it, the occiput resting on her arm. Child was laid on the side, and kept on one or the other, and was given a few doses of bromide of potassium and ergot. Recovery. P.m's in such cases had shown congestion of the membranes of the brain and cord with clots in the fossæ and cerebellum, some extravasation of blood on the membranes of the spine and brain. A deep congestion of the lungs was frequently noted.

Dr. H. B. Anderson asked if the hæmorrhage in the posterior part of the brain was supposed to be secondary to the convulsion, or whether the depression itself could produce the condition.

Dr. B. E. McKenzie said he had noticed that the essayist had not offered any explanation of why the depression in the occipital bone would produce the condition. It would not be difficult to see how depression in the parietal bones would cause the symptom.

Dr. Oakley said it had been recommended not to allow the infant to lie on anything hard lest that would cause convulsions.

Dr. Wilson said he did not see how the pressure would do the damage referred to. The parietal bones would cause the symptom.

Dr. Galloway asked why the proportion was so high among the negroes. One would think from its epidemic character that it must be due to some acute infectious process, and that the hæmorrhage would be one of the results.

Dr. Wilson said that the reports were from localities where the inhabitants were nearly all negroes. The large percentage was due to the bad hygienic surroundings and bad management of the cases. It was unlike tetanus in that it came on earlier.

Dr. B. E. McKenzie presented a boy, æt. 15, with a short, deformed hip and leg and curvature of the spine. There was some history of tubercle in the family. When a week old a swelling appeared on the left hip which was followed with suppuration. Ill one year, during which time pus discharged through openings in the hip. Pieces of bone came out at various times. The report of a second similar case was given by the doctor. He thought the pathology in one case was the same as that in the other—acute arthritis and epiphysitis. Three lines of treatment were considered—amputation, the excision of the knee-joint, and the use of a mechanical appliance. The last was decided upon. He would direct the use of a modified Thomas' splint with a lock joint at the

knee, and seven or eight inches support under the foot of the short leg.

Dr. G. H. Carveth reported a case of sarcoma of the intestine.

Dr. H. T. Machell showed a five week foetus with membranes intact. When held to the light the foetus (about  $\frac{7}{8}$  inch in length) could be seen floating in the fluid. The chorionic villi could be seen attached to the outside of membranes.

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## TORONTO PATHOLOGICAL SOCIETY.

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**R**EGULAR meeting held in the Biological Building, on January 30th, 1896. The vice-president H. B. Anderson in the chair.

Members present. Anderson, Hamilton, Oldright H. H., Oldright W., Carveth, Graham, McPhedran, Starr, Caven J., Thistle, Cameron, McKenzie J. J., Peters, Wilson R. J., Primrose, Amyot.—Visitors Drs. Wood and McCulloch.

G. H. Carveth and H. B. Anderson presented a

### MYXO-SARCOMA OF THE INTESTINE.

Remarks. This is a rare condition, only fourteen cases have been reported in medical literature. These were collected by Madeling in 1882. Patients ranged from thirty to fifty years; average duration of life thirteen months. They were usually primary, commencing in the mucous layer. The shape was annular. In the early stage, excision was allowable. In Park's system it is stated that the disease is most frequent in the young and is usually secondary. The symptoms are similar to those of carcinoma. The tumor could frequently be felt; Senn states that a sarcoma of the intestines never comes to the notice of the surgeon until the tumor has given rise to some form of intestinal obstruction. Myxo-sarcomatous degeneration is a common occurrence in them. A correct diagnosis is only made in the post mortem room.

In this case the patient was a young man who had always been in good health. He had suffered from two or three attacks of indigestion and colic during the past two years. During an attack of this sort in November, 1895, he consulted two different medical men, who washed out his stomach. Growing worse, he was obliged to take to bed. Pain, vomiting and constipation were the chief symptoms. There was no tumor, no tenderness and no rise of temperature. Pulse somewhat rapid. In one week he was sent to the

hospital as the symptoms were much worse. He vomited faecal matter. Tumor was found by rectal examination. Dr. A. A. Macdonald made an exploratory incision tentatively. The symptoms were those of acute obstruction of the bowels. The tumor was found to be soft and it was deemed advisable not to disturb it in any way. An opening was made in that portion of the intestine nearest above the tumor and connected with the abdominal wall, making an artificial anus. He died two days later.

H. B. Anderson gave a report of the post mortem. There was a yellowish tint to the conjunctiva and a cachectic hue to the skin. The peritoneum showed recent septic peritonitis, the exudation being of a thin, yellowish, purulent color. There was some glueing together of the intestines, and a large tumor filled the pelvis and was in the wall of the intestine. The tumor was quite easily dislodged from its position, the adhesions giving way readily. Below the tumor, the bowel was soft, dark, and necrotic, so that it tore very easily. The surface of the tumor was rough and irregular and apparently necrotic. A considerable portion of the tumor had ulcerated off and was lying free in the lumen of the intestine. Obstruction was apparently complete. The growth was eight and a half feet from the pyloric end of the stomach. It was very soft and had something of the appearance of oedematous fat. Microscopic examination showed it to be a myxo-sarcoma. The ground substance was fibrillated in character, and imbedded in it there were a great number of cells. Dr. Anderson then discussed the various forms of these sarcomata. In answer to Dr. Graham regarding the condition of the lower part of the bowel, Dr. Anderson said it was collapsed.

Dr. Caven says that the peculiarity in the case is this fact that that there were no secondary deposits. Some say that there is difficulty in diagnosing with the microscope between oedematous fibroid and myxo-sarcoma. He referred to a paper of Johnson's on soft fibroids. He considered that they were, in fact, sarcomatous. Dr. Anderson thought that the short duration of the growth would account for the absence of secondary deposits.

Dr. McPhedran suggested that the cause of death in this case was septic and not from the tumor or obstruction. He thinks that the bacteriological condition should be looked into in all these cases.

Dr. Anderson said he looked upon the septic condition as arising from the growth within the wall of the intestine. There was no evidence of a septic condition in the other organs.

Dr. Caven referred to the terminal infection found in four cases

of chronic heart, kidney, and liver disease. A pure culture of staphylococcus pyogenes aureus was found. Also bacterium coli commune.

J. J. McKenzie said that the bacterium coli commune increased the virulence in forms of peritonitis from obstruction.

Dr. Caven stated that in cases of sudden death within a short time after operation, where there is no peritonitis and generally called "death from shock," death is really caused by sepsis, cultures giving staphylococci and streptococci.

Carcinoma of the breast was presented by Dr. W. Oldright.

#### CARCINOMA MAMMÆ.

I saw the patient in consultation with Dr. A. W. Mayburry on December 3, 1896.

The history was as follows: Age 28. Family history negative. Has one child about two and a half years old. First noticed small lumps in the right mamma about eighteen months ago; have been painful for the last two or three months. No history of traumatism. No cachectic appearance. No retraction or puckering of nipple or skin.

On palpation a lump apparently about one and a half inches in its transverse diameters and less in depth was discernible about an inch and a half above and to the outer side of the nipple. It was not very hard.

A lymphatic was also noticed just below, or in the lower part of the axilla. A similar but smaller lump was felt in the left breast, and a lymphatic rather more noticeable similarly situated on the left side.

We advised an exploratory incision, the complete ablation of the breast, and all tissue liable to be infected to be immediately carried out should the exploration reveal malignant disease. On December 9 a portion of the breast was removed, including the little tumor and sufficient surrounding tissue to guard against auto-infection should the diagnosis of non-malignancy not be made positive. After removal a section was made through the growth; the microscopic appearances were not such that we felt justified in proceeding with the extensive operation of complete removal. This view was unanimous amongst those present, Drs. Mayburry, Dwyer, H. H. Oldright, Ryan, and myself. The wound was closed and healed rapidly by first intention.

Microscopic sections of the tumor were made by Mr. Walter Mayburry, and were examined also by Drs. J. Caven, Harris and Amyot, and were pronounced carcinomatous. These sections are now presented for your examination.

In consequence of the results of the microscopic examination the complete operation was carried out on the 14th of this month, the same gentlemen being present as at the first operation.

Halstead's method was adopted. You will notice two prolongations or processes of the removed mass: the one to the inner side subdividing into two, representing the tissues respectively above and below the axillary and subclavian vessels, as far up as the latter could be reached by drawing the arm and clavicle upwards; the latter subdivision also includes the tissues surrounding the pectoralis minor. The other process consists of the glandular, fatty and connective tissue of the axilla.

Union took place by first intention, and the patient left the hospital in two weeks.

This case is mainly interesting from a pathological point of view on account of the difficulty of diagnosis, the apparently trivial symptoms, and, with one exception, the innocent microscopic appearance. It is, I think, unusual to find so small a growth so soft, so little involvement of skin, with such a lengthy existence; whilst even the pain might have been caused by mastitis, with resulting cysts; but the pain coming on late in the period of existence of the lump was suspicious; as for lymphatic involvement I have seen that in connection with simple cyst formation in the breast.

Dr. Graham referred to a case of

#### PAGET'S DISEASE OF THE NIPPLE,

shown last year. She consulted a homœopathist later, not heeding the advice that the breast should be removed; was operated upon for a ventral hernia, which was not a source of much trouble, and told that the condition in the breast would amount to nothing. Since that time the attending physician has operated for extensive carcinoma with axillary involvement.

Dr. Amyot presented a tuberculous lung. Patient about 45 years of age. Had knee-joint trouble about thirty-five years ago, resulting in partial ankylosis. Had occasional attacks of hæmoptysis during the last ten years. Two years before death he fell and received some injury to the testicle, from which a hydrocele developed. It was aspirated four times; on three of these occasions he had hæmoptysis.

Final illness began with a so-called cold. Had a slight hæmorrhage; two days later he had a severe hæmorrhage, and two days after this another. Crepitant rales could then be heard over both lungs. No dullness. Bacilli of tuberculosis were found in abun-

dance. Respiration 40 to 50. Died five days after the last hæmorrhage. For two days before death the percussion note was dull over the greater portion of the chest, particularly over the lower left side, where during the three days previously it was actually hyper-resonant. The right infra-clavicular region was flat and depressed.

On post-mortem the lung showed only slight scarring. There was a scar at the left apex. Lungs were emphysematous, but not solid. Small bodies could be felt all through them. Specimen was put in formaline solution, and left until the present time (about six months.) There are small whitened areas throughout. Rest of lung tissue brownish in color.

Microscopically. White areas show leucocytic infiltration with caseation. Rest of the alveoli contain a quantity of red blood corpuscles with hyaline looking material (serum coagulated by formaline); could not find any bacilli. No tubercles in the heart muscle, the only other organ taken.

Dr. Graham asked how long it took for caseation to take place.

Dr. Cameron thought it might take place in any time, as he considered it a coagulation necrosis.

Dr. Primrose showed a tumor which had been removed from the navel of an infant. The tumor was about the size of a filbert nut, grey in color, and possessed a gelatinous appearance on the surface. It was pedunculated. The pedicle was ligated, and the tumor removed. On microscopical examination it was found to possess the following characteristics: The central part was composed of fibrous tissue, while the surface presented adenomatous structure. The entire superficial portion of the tumor was studded over with tubular glands, indistinguishable from Lieberkuhn's crypts of the intestine. These glands opened on the fore surface. The condition in fact was such as might be produced by a pedunculated protrusion of the mucous membrane into the lumen of the bowel.

## Book Reviews.

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THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY: Being a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators, collected and arranged with critical editorial comments by Drs. J. M. Baldy, C. H. Burnett, Archibald Church, C. F. Clarke, Chalmers DaCosta, Dorland, Gibney, Homer Gibney, Griffin, Guiteras, Hamann, Hansell, Hardaway, Hardie, Hersman, Hirst, Ingalls, Keen, Leffmann, Norrie, Patrick, Pepper, Riesman, Starr, Stengel, Stewart, and Westcott. Under the general editorial charge of George M. Gould, M.D. Profusely illustrated with numerous wood-cuts in text, and thirty-three handsome half-tone and colored plates. Philadelphia: W. B. Saunders, 925 Walnut street.

The book gives an admirable epitome of things new in the medical year of 1896. It is no simple matter to select the best among the almost innumerable new things published in periodicals, monographs, text-books, etc.; and, of course, the value of a work such as this depends largely, if not altogether, on the judgment displayed by the editors in the various departments. The names of Dr. Gould's co-workers in connection with this book are well-known to the profession of Canada, and much that is good, and nothing that is bad, will be looked for. We desire to say to those who expect much that they are not likely to be disappointed.

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TEXT-BOOK OF THE PATHOGENIC BACTERIA. Specially written for students of medicine. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia, etc. 359 pages, finely illustrated. Cloth. Price, \$2.50 net.

The book presents a concise account of the technical procedures necessary in the study of bacteriology. It describes the life-history of pathogenic bacteria, and the pathological lesions following invasions. The illustrations have been gathered from standard sources, and comprise the best and most complete aggregation extant. It—written by one in every sense competent for so important an undertaking—is a wonderful help to the busy practitioner. The material is complete and up to date. The knowledge of pathogenic bacteria has increased wonderfully during the past few years, and, unless by such volumes as this, the man in general practice could not keep himself acquainted with the advancement. We can recommend the work to the profession. The publishers have illustrated this volume with their usual great care.

**AN AMERICAN TEXT-BOOK OF OBSTETRICS FOR PRACTITIONERS AND STUDENTS.** By Drs. James C. Cameron, Edward P. Davis, Robert L. Dickinson, Charles Warrington Earle, James H. Etheridge, Henry J. Garrigues, Barton Cook Hirst, Charles Jewett, Howard A. Kelly, Richard C. Norris, Chauncy D. Palmer, Theophilus Parvin, George A. Piersol, Edward Reynolds, and Henry Schwarz. Robert C. Norris, M.D., editor; Robert L. Dickinson, M.D., art editor. With nearly 900 colored and half-tone illustrations. Philadelphia: W. B. Saunders, 925 Walnut street.

Our review of this admirable text-book of obstetrics should have appeared several months ago. We regret the delay which was caused by an accident, chiefly because such a work as this should be announced at the earliest possible date after its publication. The list of contributors contains the well-known names of very able obstetrical teachers and practitioners. The editors tell us that "while the various authors were each assigned special themes for discussion, nevertheless an attempt has been made, so to correlate the subject-matter as to preserve throughout the text a logical sequence not always found in composite publications." We have only to say respecting this that they have been remarkably successful in carrying from beginning to end a continuity that deserves the highest commendation. We can find no single section in the whole book which calls for adverse criticism. The numerous colored and half-tone illustrations are, on the whole, better than any we have seen in other text-books on midwifery. The book is, perhaps, too large to become popular among medical students; but we can assure this important class of readers that the extra time required for its perusal should not be considered a drawback. As a matter of fact, a system of cramming from concise "aids" can never make well qualified obstetricians. We cannot discuss the many merits of the work in detail; but, we may say, in a general way, we believe it is the best text-book in its subject now available for advanced students (we might even delete the word "advanced") and general practitioners.

**ANOMALIES AND CURIOSITIES OF MEDICINE.** Being an encyclopædic collection of rare and extraordinary cases, and of the most striking instances of abnormality and all branches of medicine and surgery, derived from an exhaustive research of medical literature from its origin to the present day, abstracted, classified, annotated, and indexed. By George M. Gould, A.M., M.D., and Walter L. Pyle, A.M., M.D. With 295 illustrations in the text and 12 half tone and colored plates. Philadelphia: W. B. Saunders, 95 Walnut street. 1897. Prices, cloth, \$6 net; half morocco, \$7 net. Sold only by subscription.

The authors of this very interesting book have spent a great amount of time and work in searching through the large libraries of Europe and America for striking cases of abnormalities, or, as they say, of anomalies and curiosities of medicine, surgery, and midwifery. As a result of their enormous work we have in this volume a description of these almost countless curious things which they have selected from ancient and modern medical literature. It would be impossible in a short review to



give any adequate description of the scope of the book ; but the following headings may give some idea of the contents : Genetic, prenatal, and obstetric anomalies ; prolificity, major and minor terata ; anomalies of stature ; longevity ; physiological anomalies ; surgical anomalies of the head and neck, extremities, thorax, abdomen, genito-urinary system ; miscellaneous surgical anomalies ; anomalous skin diseases ; historic epidemics ; etc.

THE DISEASES OF INFANCY AND CHILDHOOD. By L. Emmett Holt A.M., M.D., Professor of Diseases of Children in the New York Polyclinic ; Attending Physician to the Nursery and Child's and the Babies' Hospital, New York ; Consulting Physician to the New York Infant Asylum, etc., etc. With two hundred and four illustrations. Appleton & Co., New York. Geo. N. Morang, Canadian Agent, 63 Yonge street, Toronto.

With his extensive clinical experience, his exceptional opportunities for post-mortem observations, and his long experience in the art of teaching pædiatrics, Professor Holt is peculiarly fitted to write a book on this subject. His writings and clinical lectures have always been models of clearness, conciseness, thoroughness, and systematic arrangement. The volume excels in these good qualities, and is, moreover, thoroughly practical and up-to-date. It is written about children under eight years of age. Surgical subjects are dealt with only in so far as medical work is concerned, and no attempt is made to describe surgical operations. The first sixty pages are taken up with discussion of the hygiene and care of infants and young children, their growth and development, and the peculiarities of their diseases. One hundred pages are devoted to the nutrition of infants, which includes a discussion of the problems of nursing and of artificial feeding. He is a firm believer in cows' milk as a substitute food, properly modified to suit the exigencies of each case. The chapter on acute inanition, mal-nutrition, and marasmus is a very suggestive and helpful one. If every practitioner could read what he says about proprietary foods the evils resulting from their use would soon cease. The following quotation is *apropos* :

"There are two diseases—scurvy and rickets—which have so frequently followed their prolonged use that the conclusion cannot be escaped that they were the active cause. This is the unanimous verdict of all physicians whose experience entitles them to speak with authority on the subject of infant feeding."

Diphtheria is dealt with in a chapter of fifty pages, and a very valuable chapter it is. The author is a strong advocate of antitoxin, both for prophylaxis and for treatment during the first three days of the disease. But other methods are not to be abandoned. Briefly, he advises treatment as follows : (a) Antitoxin ; (b) stimulation (alcoholic and strychnia) ; (c) local cleanliness (hot boracic lotions, weak). Peroxide and bichloride do not enter into his pharmacopœia for this disease. But the bichloride is recommended for pseudo-diphtheria, to which a separate chapter is devoted. Creosote fumigations may be useful in certain cases.

Broncho-pneumonia is also very fully handled. Here the value of the author's post-mortem work is seen. The chapter is illustrated by twelve cuts and one plate, from original drawings, and showing the pathological changes at different stages of the disease. Under the head of physical signs one sentence deserves special notice: "It cannot be too often repeated that broncho-pneumonia may exist without sign of consolidation at any period during the course of the disease."

In the present position of medical science, any physician's library without a recent work in pædiatrics is incomplete, and no book could more satisfactorily fill the vacant shelf room than this volume.

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AN AMERICAN TEXT-BOOK OF PHYSIOLOGY. By Henry P. Bowditch M.D.; John G. Curtis, M.D.; Henry H. Donaldson, Ph.D.; W. H. Howell, Ph.D., M.D.; Frederick S. Lee, Ph.D.; Warren P. Lombard, M.D.; Graham Lusk, Ph.D.; W. T. Porter, M.D.; Edward T. Reichert, M.D.; and Henry Sewall, Ph.D., M.D. Edited by William H. Howell, Ph.D., M.D., Professor of Physiology in the Johns Hopkins University, Baltimore. Philadelphia: W. B. Saunders.

In this large volume of 1050 pages we have a Text-Book on Physiology which, however much it may lack the charm of continuity of style of a single author, pays up for it in the quality of the matter it contains.

Its ten contributors represent the chief American Universities, and each one writes on his own particular speciality. The following subjects are dealt with by Dr. Howell: Secretion; chemistry of digestion and nutrition; movements of the alimentary canal, bladder, and ureter; blood and lymph.

Part III., which deals with the subject of secretion, is very clearly stated, and gives the results of the very latest work on this line. Considerable attention is paid to the subject of the part taken by the glandular epithelium in the production of some, if not of all, the constituents of secretions. Heidenhain's theory of the method of action of the secretory fibres proper is mentioned, but Howell thinks that the truth of it is far from being demonstrated. The pages on the histological changes in the cells during activity of secretion are a concise and accurate description of these phenomena, and are well worth reading. All the illustrations of this subject are first-class, as in fact are all those throughout the volume. In the chapter on the chemistry of digestion and nutrition we are pleased to see that considerable space is given to the discussion of the nutritive value of the proteids. This is a subject of great practical importance to the physician when ordering the "dietary" of his patients, as well as of great interest to the physiologist.

In Chapter VI., on the Physiology of the Leucocytes, although reference is made in a foot-note to Kanthack and Hardy's work on the blood, nothing further is said. We think that they have proved pretty conclusively that there is no such thing as a "neutrophile," and we would like to have seen this mentioned in the text. For the purposes

of physiology the classification of leucocytes here given is, perhaps, all that is necessary. Three classes are recognized (*a*) lymphocytes; (*b*) mononuclear leucocytes, and (*c*) polymorphous or polynucleated leucocytes. We would like to have seen the term polynucleated dropped entirely, as it is certainly a misnomer. The subject of the chemical composition of the blood is dealt with at some length, and is a clear and able statement of all that has been worked out on this line.

Part X., on the "Central Nervous System," by Henry H. Donaldson, Ph.D., occupies 139 pages of the volume. We are glad to notice that in the introduction to his subject Dr. Donaldson starts off by insisting upon the unity of the central nervous system, and emphasizes the fact that by dissection the nervous system is found to be continuous throughout its entire extent. We think that many students, and even practitioners, are apt to forget this fact; many are in the habit, for instance, of speaking of the sympathetic nervous system as though it had no connection with the rest of the nervous system. Therefore this opening note is to disabuse the student's mind of all such ideas. The most recent work on the histology of the nerve cell, which has so much simplified the study of the nervous system, is well stated and clearly illustrated.

The subjects of respiration and animal heat are ably dealt with by Dr. Reichert. Dr. Porter writes upon the innervation of the heart and blood vessels, and the nutrition of the heart. The general physiology of muscle and nerve, and the action of locomotor mechanisms, form the subjects discussed by Dr. Lombard. A very readable part is the first part of Chapter VII., by Dr. Curtis, on the mechanics of the circulation of the blood, and of the movements of the lymph. In speaking of the structure of the semilunar valves, Dr. Curtis makes note of the fact that "as the valve lies immediately above the base of the ventricle the segments rest upon the top of the thick muscular wall of the latter, which affords them a powerful support." This is a point which is not noted in many physiologies, and serves well as a partial explanation of how these valves (pulmonary and aortic semilunar) bear the great pressure of the columns of blood.

Chapter XII., on Reproduction, is by Frederick S. Lee, Ph.D., and the last chapter on the chemistry of the animal body is by Graham Lusk, Ph.D., of Yale Medical School.

Mr. Saunders is to be congratulated on being the publisher of such an able and useful volume. Although written by men of such high scientific reputation it is not too deep for the primary student of physiology, and we are sure it will be very favorably received by both professors and students. As to the workmanship displayed on the book we need say very little; the letter press, as well as all the illustrations, are the best that could be desired. The large size of the volume may possibly be somewhat of an obstacle to its sale, still it is not much more bulky than many of the works on the practice of medicine. In conclusion we may state that no person who buys this volume will be disappointed with what he gets.

## Medical Items.

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THE Tri-State Medical Society, of Iowa, Illinois, and Missouri, meets in St. Louis April 6, 7, and 8, 1897.

DR. R. H. SOMERS (Tor. '95), of Le Mars, Iowa, was in town attending the funeral of his sister, who died suddenly.

DR. STEEP, of Winnipeg, has been appointed medical attendant upon the Indians of Clandeboye agency, Manitoba, in the place of Dr. Orton, ex-M.P.

DR. J. P. LEE has removed from Niagara Falls, Ont., to Kingsmill, where he succeeded Dr. F. A. Wigle, who retired from active practice from ill health. Dr. F. A. Wigle is rapidly regaining health in Ruthven.

THE Board of Management of the Ontario Medical Library Association desire to acknowledge the receipt of Treves' System of Surgery, and nine volumes of Transactions of Association of American Physicians.

DR. THOMAS VERNER has returned from Rossland. He says that the opportunities for the practice of medicine are no greater there than elsewhere. There are thirteen doctors in Rossland. The doctor has a wonderful idea, though, of the mineral wealth of the place.

AT a recent meeting of the Board of Trustees of the Jefferson Medical College, Philadelphia, Dr. J. Chalmers DaCosta was elected Clinical Professor of Surgery. Dr. DaCosta has been connected with the College for many years, and has recently been Demonstrator of Surgery and Chief of the Out-Patients' Department. The new appointment is made in recognition of his long service and valuable contributions to surgical literature.

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## CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

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PRELIMINARY PROGRAMME FOR THE FOURTH SESSION TO BE HELD IN WASHINGTON, D.C., MAY 4, 5, 6, 1897.

President—William H. Welch, M.D., LL.D., Baltimore, Md.

Treasurer—Newton M. Shaffer, M.D., New York City.

Chairman of the Executive Committee—Landon Carter Gray, M.D., New York City.

Secretary—William H. Carmalt, M.D., New Haven, Conn.

The meetings of the Congress will all be held in the Columbia Theatre, corner of Twelfth and F Streets, N.W.

*Tuesday, May 4.*—A business meeting of the Congress will be held from 1.30 to 2 p.m. From 2 to 3.30 a general meeting of the Congress under the direction of "The American Ophthalmological Society." Subject: "The Gouty and Rheumatic Diatheses, and Their Relation to Diseases of the Eye." Papers will be read by Dr. Charles Stedman Bull, of New York City; Dr. S. Oliver Richey, of Washington, D.C.; Dr. S. D. Risley, of Philadelphia, Pa.; Dr. Robert Sattler, of Cincinnati, Ohio; and Dr. R. A. Reeve, of Toronto, Canada; to be followed by a discussion, in which Dr. J. M. DaCosta, of Philadelphia, Pa., and Dr. Henry M. Lyman, of Chicago, Ill., members of the Association of American Physicians, and others, will participate. From 3.30 to 5 p.m. a general meeting under the direction of "The American Otological Society." Subject: "Otology in its Relations to General Medicine." A paper by Dr. Clarence J. Blake, of Boston, Mass.

*Wednesday, May 5.*—From 2 to 5 p.m. a general meeting of the Congress under the joint participation of "The Association of American Physicians," "The American Physiological Society," and "The American Pediatric Society." Subject: "Internal Secretions Considered in their Physiological, Pathological, and Clinical Aspects." Dr. William H. Howell, of Baltimore, Md., and Dr. Russell H. Chittenden, of New Haven, Conn., will speak in behalf of The American Physiological Society; Dr. J. George Adami, of Montreal, Canada, Dr. James J. Putnam, of Boston, Mass., and Dr. Francis P. Kinnicut, of New York City, in behalf of The Association of American Physicians, and Dr. William Osler, of Baltimore, Md., in behalf of The American Pediatric Society. The papers will be followed by a discussion.

*Wednesday May 5—Evening Meeting.*—8.15 p.m., address by the President of the Congress, Dr. William H. Welch, Professor of Pathology in the Johns Hopkins University, Baltimore, Md., to be followed by a reception by the President at Rauscher's, corner of Connecticut Avenue and L Street.

*Thursday, May 6.*—From 2 to 3.30 p.m., general meeting of the Congress, under the direction of "The American Orthopedic Association." Subject: "Deformities of the Hip-Joint, Especially Congenital Dislocations." A paper will be read by Dr. E. H. Bradford, of Boston, Mass., to be followed by a discussion by Dr. V. P. Gibney, of New York City, and Dr. Harry M. Sherman, of San Francisco, Cal. From 3.30 to 5 p.m., general meeting of the Congress under the direction of "The American Surgical Association." Subject: "The Classification of Acute General Peritonitis: The Prognosis and Treatment of the Different Varieties." Dr. William S. Halsted, of Baltimore, Md., will read a paper on "The Classification," and Dr. Robert Abbe, of New York City, on "The Prognosis and Treatment of the Different Varieties." A discussion will follow, participated in by Dr. John Homans, of Boston,

Mass., Dr. A. Van der Veer, of Albany, N.Y., Dr. Henry H. Mudd, of St. Louis, Mo., Dr. Frederick Lange, and Dr. Arpad G. Gerster, of New York City.

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OBITUARY.

**JAMES HARIAN REID, M.D., C.M.**—Dr. J. H. Reid, a promising and successful young physician, who had been practising for some years, died January 15 from pleurisy. Dr. Reid was educated in the Toronto School of Medicine, and graduated in the University of Victoria College in 1879.

**WILLIAM JOHN MITCHELL, M.D.**—Dr. W. J. Mitchell, a popular and successful young physician of London, Ontario, died last month after a short illness from pneumonia. He graduated in the Western University, 1885, then commenced practice in London. He was a member of the staff of the medical faculty of Western University, and was also surgeon to the Seventh Battalion.

**ROBERT TODD REYNOLDS, M.D.**—Dr. R. T. Reynolds, who lived and practised for many years in Berlin, Ont., died at the residence of his son-in-law, Chicago, February 28, aged 85. He was born in Amherstburg, and received his medical education in McGill University, of which he was for some time before his death the oldest living graduate, having received M.D. from that institution in 1833.

**RICHARD MILNE STEPHEN, M.C.P. & S.O.**—Dr. Richard Stephen died at his home in Manitowaning, Algoma, March 10, 1897. He was a son of Dr. A. R. Stephen, of Collingwood, and received his medical education in Trinity College. He was house physician in the Toronto General Hospital for nearly a year. He was a victim of tuberculosis for some years, which disease caused his death.

**ROBERT MARK, M.D.**—Dr. Mark, coroner for the county of Carleton and city of Ottawa, died of pneumonia February 22, 1897. He received the degree of M.D. from Victoria in 1867, but he spent the greater part of his life as a clergyman in the Methodist Church. He was superannuated thirteen years ago, and after that time practised medicine to some extent, and did a good deal of work as a coroner.

**WILLIAM W. BREMNER, M.D.**—Dr. W. W. Bremner died in Los Angeles, California, March 12, 1897, aged 44. He was born in England, but came to Canada when quite young, with his father. He resided in the vicinity of Barrie, where he received his preliminary education. He graduated in the University of Toronto in 1882. After practising for a short time in Barrie he went to England, and after staying a few months in London commenced practice in Manchester, his birthplace. In a few years he returned to this continent, and spent nearly two years in New York, working chiefly in orthopaedic surgery. He then came to Toronto and practised as specialist in this subject for four years. As

his health became poor he decided to try a warmer climate, and left Toronto about two years ago for California. We know nothing as to the particulars of his last illness.

SIR THOMAS SPENCER WELLS, BART., F.R.C.S.—The man, who a few years ago was rightly considered as the greatest ovariologist in the world, has gone to "the majority." Spencer Wells was a great man, and was one of the surgeons of the world whose name in the future will be linked with that of Lister, and a number of others who did much for surgery and for suffering humanity in the latter half of the present century. Wells was born at Hertford in 1818, and received his medical education chiefly in Dublin and London. In 1838 he studied in Dublin under Graves, Stokes, and others; in 1839 and 1840 he worked in St. Thomas' Hospital, London, under Green, Travers, and Tyrell. In 1841 he became a Member of Surgeons, and entered the Royal Navy as assistant surgeon. He served in the Naval Hospital at Malta for nearly six years. He commenced practice in London in 1853, and was elected surgeon to the Samaritan Free Hospital in the following year. During this year (1854) the Crimean war broke out, and Wells went off to the seat of war, where he was engaged in military surgery for about two years. Two years after his return to England he commenced to rise to fame.

In 1854 he witnessed his first ovariectomy performed by that great, but unfortunate surgeon, Baker Brown. The patient died. Brown was discouraged; Wells also. Afterwards, however, in the Crimea, he discovered that the peritoneum would bear very rough handling. As we are told by the *British Medical Journal* he learnt that the abdominal walls might be extensively lacerated, the intestines might protrude for hours till they were covered with dirt, and yet, that after careful cleansing and accurate closure of the wounds, complete recovery was possible. He lost his terror about opening and handling the peritoneum. In 1857 he made his first attempt at ovariectomy, but was unable to remove the tumor. The spectators made discouraging remarks; the outside medical world sneered. Still Wells believed in great possibilities in connection with abdominal surgery. In 1858, when he was forty years of age, he did his first successful ovariectomy. His signal success thereafter in abdominal surgery is well known. Others operated before him, but Wells was practically the father of ovariectomy.

Three years ago, when travelling in India, he had an attack of influenza, with paralytic symptoms, especially affecting the speech, from which he never fully recovered. Three months ago he went to the south of France with two daughters. He had an apoplectic seizure on the morning of January 31, at Cap d'Antibes, near Cannes, and died the same evening at 11 o'clock. The body was cremated at Woking, according to his desire, on Monday, February 8th, and the remains were deposited at Brompton cemetery.