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A Monthly Journal of Medical and Surgical Science, Criticism and News.

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Vol. XXIX. }  
No. 10. }

TORONTO, JUNE, 1897.

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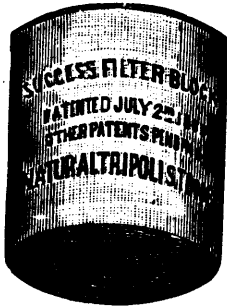
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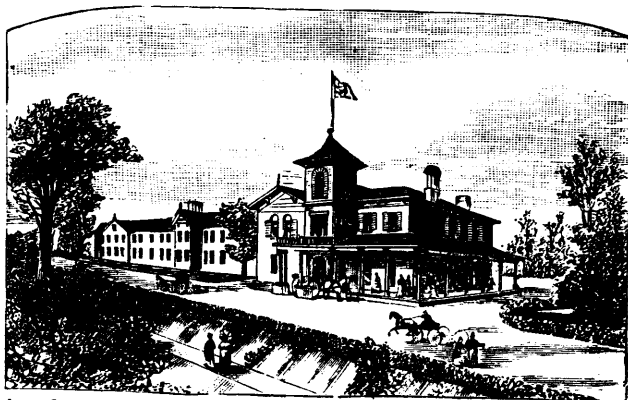
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Strychniæ Sul. . . . .	1-33 gr.
gelsemin . . . . .	1-20 gr.
Ferri Sulph. exs. . . . .	$\frac{1}{2}$ gr.
Ol. Res. Capsici. . . . .	1-10 gtt.
<b>Chinoidin, Comp.</b>	
Chinoidin . . . . .	2 grs.
Ferri Sulph. Exsic. . . . .	1 gr.
Piperina . . . . .	$\frac{1}{2}$ gr.
Cinchoniæ Sulph. . . . .	2 grs.
Cinchonidæ Salicyl. . . . .	2 $\frac{1}{2}$ grs.
Cinchonidæ Sulph. . . . .	1 gr.
Cinchonidæ Sulph. . . . .	2 grs.
Cinchonidæ Sulph. . . . .	3 grs.
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Salicylic Ac. . . . .	1 gr.
Opium . . . . .	$\frac{1}{2}$ gr.
Ol. Res. Capsici . . . . .	$\frac{1}{2}$ gr.
Quiniæ Sulph. . . . .	1 gr.
Quiniæ Sulph. . . . .	2 grs.
Quiniæ Bi-Sulph. . . . .	1 gr.
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Ext. Nuc. Vom. . . . .	$\frac{1}{2}$ gr.
Pv. Capsicum . . . . .	$\frac{1}{2}$ gr.
Ext. Belladonnæ . . . . .	1-10 gr.
Ext. Hyocyami . . . . .	$\frac{1}{2}$ gr.
<b>Aperient.</b>	
Ext. Nuc. Vom. . . . .	$\frac{1}{2}$ gr.
Ext. Hyocyami . . . . .	$\frac{1}{2}$ gr.
Ext. Coloc. Co. . . . .	2 grs.
<b>Cascara Alternative. Pink</b> (Dr. Leutaud).	
Cascarin. . . . .	$\frac{1}{2}$ gr.
Stillingia . . . . .	$\frac{1}{2}$ gr.
Fuonymin . . . . .	$\frac{1}{2}$ gr.
Piperina . . . . .	1-100 gr.
<b>Chapman's Dinner Pills.</b>	

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<b>Colocynth et Hyocyamus.</b>	
Ext. Coloc. Co. . . . .	2 $\frac{1}{2}$ grs.
Ext. Hyocyami . . . . .	1 $\frac{1}{2}$ gr.
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Pulv. Aloes. Soc. . . . .	1 gr.
Sulphur . . . . .	1-5 gr.
Res. Podophyllin. . . . .	2-5 gr.
Res. Guaiac . . . . .	$\frac{1}{2}$ gr.
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Aloin. . . . .	1-10 gr.
Ipecac. . . . .	1-30 gr.
Strych. Sul. . . . .	1-100 gr.
Succus. Bellad. . . . .	1-20 gr.
<b>Podophyllin et Hyocyamus.</b>	
Podophyllin. . . . .	
Ext. Hyocyami. . . . .	aa $\frac{1}{2}$ gr.
<b>Podophyl. Comp. (Eclectic.)</b>	
Podophyllin . . . . .	$\frac{1}{2}$ gr.
Leptandrin . . . . .	1-16 gr.
Juglandin . . . . .	1-16 gr.
Meerotin . . . . .	1-32 gr.
Ol. Res. Capsici . . . . .	q. s.
<b>Podophyl. et. Bellad.</b>	
Podophyllin . . . . .	$\frac{1}{2}$ gr.
Ext. Bellad. . . . .	$\frac{1}{2}$ gr.
Ol. Res. Capsici . . . . .	$\frac{1}{2}$ gr.
Saccharum Lact. . . . .	1 gr.
<b>Sumbul Aperient.</b> (Dr. Shoemaker.)	
Eq. Sumbul. . . . .	1 gr.
Asafetida . . . . .	1 gr.
Ext. Nuc. Vom. . . . .	$\frac{1}{2}$ gr.
Ext. Cascara Sag. . . . .	$\frac{1}{2}$ gr.
Aloin . . . . .	$\frac{1}{2}$ gr.
Gingerine . . . . .	$\frac{1}{2}$ gr.
<b>Astringents.</b>	
<b>Astringent.</b>	
Ext. Geranni. . . . .	2 grs.
Pv. Opil. . . . .	$\frac{1}{2}$ gr.
Ol. Menth. Pip. . . . .	1-20 gtt.
Ol. Res. Zingiber. . . . .	1-20 gtt.
<b>Opil et Plumbi Acet.</b>	
Pulv. Opil. . . . .	$\frac{1}{2}$ gr.
Plumbi Acet. . . . .	1 $\frac{1}{2}$ gr.

### Cathartics.

<b>Cascara Cathart. (Dr. Hinkle.)</b>	
Cascarin . . . . .	
Aloin. . . . .	aa $\frac{1}{2}$ gr.
Podophyllin . . . . .	1-6 gr.
Ext. Belladon. . . . .	$\frac{1}{2}$ gr.
Strychnin . . . . .	1-60 gr.
Gingerine . . . . .	$\frac{1}{2}$ gr.
<b>Cathartic Comp. U. S. P.</b>	
<b>Cathartic Comp Imp. 3 grs.</b>	
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Ext. Jalap. . . . .	
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Ext. Hyocyami. . . . .	
Ext. Gentiane. . . . .	
Ol. Menth. Pip. . . . .	
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Ext. Hyocyami. . . . .	$\frac{1}{2}$ gr.
Ext. Nuc. Vom. . . . .	1-16 gr.
Ol. Res. Capsic. . . . .	$\frac{1}{2}$ gtt.
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Pil. Hydrarg. . . . .	3 grs.
Ext. Coloc. Co. . . . .	1 gr.
Ext. Hyocyami. . . . .	1 gr.
<b>Podophyllin, <math>\frac{1}{2}</math> gr.</b>	
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<b>Cascara Comp.</b>	
Ext. Cascara Sag. . . . .	3 grs.
Res. Podophyllin. . . . .	$\frac{1}{2}$ gr.
<b>Diaphoretics.</b>	
<b>Analeptic.</b>	
Pv. Aniraonalis. . . . .	$\frac{1}{2}$ gr.
Pv. Res. Guaiac. . . . .	1 gr.
Pv. Aloes Socot. . . . .	$\frac{1}{2}$ gr.
Pv. Myrrhæ . . . . .	$\frac{1}{2}$ gr.
<b>Diaphoretic.</b>	
Morphiæ Acetat. . . . .	1-25 gr.
Pv. Epecac. . . . .	$\frac{1}{2}$ gr.
Pv. Potass. Nitrate. . . . .	1 gr.
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### Emmenagogues.

#### Emmenagogue.

Ergotine.....1 gr.  
Ext. Hellebore Nig.....1 gr.  
Aloes.....1 gr.  
Ferri Sul. Exs.....1 gr.  
Ol. Sabine..... $\frac{1}{2}$  gr.

#### Pil. Phosphori Cum. Cantharide Co.

Phosphori.....1-50 gr.  
Pv. Nuc. Vom.....1 gr.  
Sol. Canthar. Conc't.....1 m.

### Laxative.

#### Aloin et Strychnin et Belladon.

Aloin.....1-5 gr.  
Strychnin.....1-60 gr.  
Ext. Belladon..... $\frac{1}{2}$  gr.

### Sedative.

#### Bismuth et Ignatia.

Bismuth Sub. Carb.....4 grs.  
Ext. Ignatin Amara..... $\frac{1}{2}$  gr.

#### Camphor Mono-Bromated, 2 grs.

#### Ergotin Comp. (Dr. Reeves.)

Ergotin.....3 grs.  
Ext. Cannab. Ind..... $\frac{1}{2}$  gr.  
Ext. Belladon..... $\frac{1}{2}$  gr.

### Sedative.

Ext. Sumbul..... $\frac{1}{2}$  gr.  
Ext. Valeriana..... $\frac{1}{2}$  gr.  
Ext. Hyocyami..... $\frac{1}{2}$  gr.  
Ext. Cannab. Ind.....1-10 gr.

#### Ulsemin..... $\frac{1}{2}$ gr.

#### Phosphori Cum. Cannab. Indica.

Phosphori.....1-50 gr.  
Ext. Cannab. Ind..... $\frac{1}{2}$  gr.

### Tonics.

#### Aloes et Ferri.

Pulv. Aloes Socot..... $\frac{1}{2}$  gr.  
Pulv. Zingib. Jam.....1 gr.  
Ferri Sulph. Exsic.....1 gr.  
Ext. Conii..... $\frac{1}{2}$  gr.

### Tonics—continued.

#### Aloes et Nuc. Vom.

Pulv. Aloes Soc..... $\frac{1}{2}$  grs.  
Ext. Nuc. Vomice..... $\frac{1}{2}$  gr.

#### Antiseptic Comp. (Warner & Co.)

Sulphite Soda.....1 gr.  
Salicylic Acid.....1 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.  
Powd. Capsicum.....1-10 gr.  
Concent. Pepsin.....1 gr.

#### Chalybeate.....3 grs. Pink (Warner & Co.)

Ferri Sulph..... $\frac{1}{2}$  grs.  
Potass. Carb..... $\frac{1}{2}$  grs.

#### Chalybeate Compound (Warner & Co.).....Pink

Chalybeate Mass.....2 $\frac{1}{2}$  grs.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

#### Damiana Cum. Phosph. et Nuc. Vom.

Ext. Damiana.....2 grs.  
Phosphori.....1-100 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

#### Digestiva (Warner & Co.)

Pepsin Concentrat.....1 gr.  
Pv. Nuc. Vom..... $\frac{1}{2}$  gr.  
Gingerine.....1-10 gr.  
Sulphur..... $\frac{1}{2}$  gr.

#### Ferri (Quevennes).....2 grs.

Ferri Carb. (Vallett's), U.S.P. 3 grs.

Ferri Iodid.....1 gr.

### Neuralgic.

Quinise Sulph.....2 grs.  
Morphia Sulph.....1-20 gr.  
Strychnise.....1-30 gr.  
Acid Arsenious.....1-20 gr.  
Ext. Aconiti..... $\frac{1}{2}$  gr.

### Quidise Comp.

Quinise Sulph.....1 gr.  
Ferri Carb. (Vallett's).....2 gr.  
Acid Arsenious.....1-60 gr.

### Quinise et Ferri.

Quinise Sulph.....1 gr.  
Ferri Redact.....1 gr.

### Quinise et Ferri et Strych. Phos.

Quinise Phos.....1 gr.  
Ferri Phos.....1 gr.  
Strychnise Phos.....1-60 gr.

### Tonics—continued.

#### Quinise Iodoform et Ferri.

Iodoform.....1 gr.  
Fer. Carb. (Vallett's).....1 gr.  
Quinise Sulph..... $\frac{1}{2}$  gr.

#### Sumbul Comp. (Dr. Goodell.)

Ext. Sumbul.....1 gr.  
Asafetida.....2 grs.  
Ferri Sulph. Exsic.....1 gr.  
Acid Arsen.....1-40 gr.

### Tonic.

Ext. Gentiana.....1 gr.  
Ext. Hamuli..... $\frac{1}{2}$  gr.  
Ferri Carb. Sacch..... $\frac{1}{2}$  gr.  
Ext. Nuc. Vom.....1-20 gr.  
Res. Podophylli.....1-25 gr.  
Ol. Res. Zingib.....1-10 gr.

#### Zinci Posphide and Nuc. Vom.

Zinci Phos.....1-10 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

Strychnise.....1-16,  
1-20, 1-30, 1-32, 1-40 and 1-60 gr.

Pil. Phosphori, 1-25, 1-50, 1-100 gr.

#### Pil. Phosphori Comp.

Phosphori.....1-100 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

#### Pil. Phosphori Cum. Nuc. Vom.

Phosphori.....1-50 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

#### Pil. Phosphori Cum Ferro.

Phosphori.....1-50 gr.  
Ferri Redact.....1 gr.

#### Pil. Phosphori Cum Ferro et Nuc. Vom.

Phosphori.....1-100 gr.  
Ferri Carb.....1 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

#### Pil. Phosphori Cum Ferro et Quinise et Nuc. Vom.

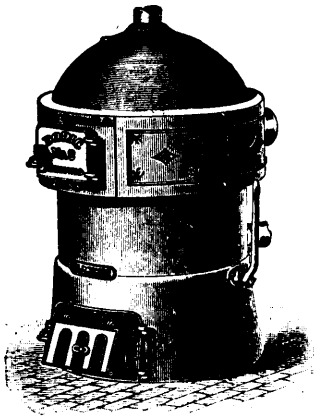
Phosphori.....1-100 gr.  
Ferri Carb.....1 gr.  
Quinise Sul.....1 gr.  
Ext. Nuc. Vom..... $\frac{1}{2}$  gr.

#### Pil. Phosphori Cum Quinise.

Phosphori.....1-50 gr.  
Quinise Sulph.....1 gr.

#### Quinise et Ferri Carb.

Quinise Sulph.....1 gr.  
Ferri Carb.....2 grs.



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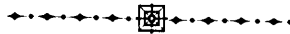
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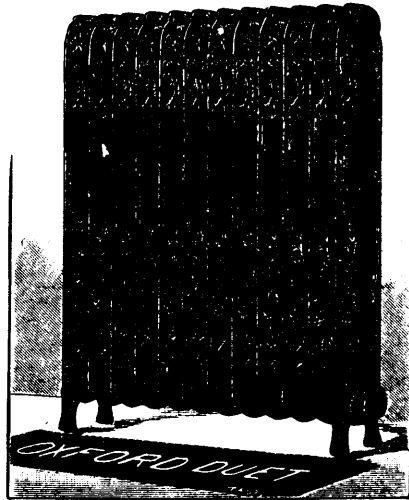


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# The Canada Lancet.

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## \*ANTI-TOXINE IMMUNIZATION.

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

Late Resident Surgeon Hospital for Sick Children, Toronto.

I presume I should offer an apology for having brought this subject to the notice of medical men, since it is one about which so much has lately been written, yet regarding which so much doubt apparently exists.

Medical journals have been publishing observations relating to the effect of the hypodermic administration of anti-toxine in the patient after he has contracted diphtheria, but seldom do we read much regarding its action on the individual exposed to contagion, yet at the time of the administration of the serum manifesting no clinical symptoms of the disease.

I shall endeavor to give a few notes regarding an outbreak of diphtheria in the wards of the Hospital for Sick Children, Toronto, the means adopted to prevent the spread of the disease, and a table showing the effect of the injection of anti-toxine in different parts of the body, on the temperature, pulse and respiration.

The Hospital for Sick Children does not admit to its wards patients suffering from any infectious disease, and when any such disease shows signs of development (which is an almost unavoidable occurrence in a large hospital for children), the patient so affected is immediately removed to a small isolated ward, known as a "suspect" ward. Then supposing the symptoms be those of diphtheria, a swab taken from the throat is ex-

\*Read before the District Meeting Bay of Quinte Medical Association.



amined bacteriologically, and should this examination show the Klebs Loeffler bacillus, the patient is at once transferred to the infectious department, no matter what the clinical symptoms may be. Prof. Shuttleworth, bacteriologist to the Health Department for the City of Toronto, conducted the bacteriological examinations, and no case, no matter how characteristic the throat may have appeared, was pronounced diphtheria until the Klebs Loeffler bacillus was found in the throat.

On December 18th, 1896, a boy of 10 years, in the boys' surgical ward, complained of his throat being sore. He was at once isolated, and a swab from the throat sent for bacteriological examination. Next day the disease was pronounced diphtheria, so the patient was at once removed, covered by a carbolized sheet, to the infectious department and there attended by separate nurses, and by a physician who did not attend patients in any of the other wards. Next morning, Dec. 19th, three more patients in the same ward complained of their throats being sore. These were treated in an exactly similar manner, and, subsequently, were removed to the infectious department, the disease having been pronounced diphtheria. A halt now seemed to have occurred in the spread of the disease; but on Dec. 27th another case of sore throat developed, which was managed as were the previous cases.

At this time, there having been five cases from one ward, it was reasonable to suppose that there existed some diphtheria poison in the ward, so all the patients from this ward were transferred to another ward and kept practically isolated from the remainder of the hospital. On December 28th, anti-toxine (P. D. & Co.) was injected, 250 units in some cases and 500 units in others. In the girls' surgical ward all the patients were injected with the same dose, as there had been a good deal of communication with the infected ward.

The patients of the boys' surgical ward, which was situated as far away as possible from the other children, were carefully examined night and morning with a head mirror and strong light, to notice any appearance of congestion of the throats. No marked congestion was apparent in any; but on the advice of Dr. Sheard, Medical Health Officer, a swab was taken from each throat and bacteriologically examined. The next day two cases were pronounced diphtheria, though no clinical signs whatever manifested themselves at the time the swab was taken. On examination now, however, marked congestion of the fauces was present. These two boys were immediately transferred to the infectious ward, for though their throats had no membrane, nor did they appear to be suffering from symptoms of diphtheria, they could readily communicate the disease to others whose resisting powers might be so lowered as to be unable to successfully combat the rapid development of the disease.

On January 9th, 1897, we had the disease occurring in the girls' surgical ward, the patients of which were injected with anti-toxine, 250 units in some and 500 in others, on Dec. 28th, 1896. A little girl here complained of her throat being sore, and on examination the throat was found markedly congested, with the right tonsil covered with a thick greyish membrane. She was at once isolated and a swab taken, which was pronounced diphtheritic the next day. On the 10th two more cases occurred,

another on the 12th, and still another on the 15th. Here, too, I think we are justified in saying that the disease had obtained a foothold.

Anti-toxine immunization is, I understand, supposed to last from 14 to 25 days, but in this instance 6 or 7, and in a few others, 8 and 9 days elapsed between the injection of the serum and the development of the disease. From this I would argue that either anti-toxine is of doubtful benefit as an immunizing agent, or the dose given was too small. The latter, I think, the more probable conclusion.

Now a serious state of affairs was present. Here were about 100 sick children, the majority of whom were surgical cases, grouped under one roof and among whom, some had diphtheria. Should the disease spread in its usual manner, the result might be terrible. The question again arose, will anti-toxine protect those not yet affected? From the previous experience one would be inclined to say no. However, it was decided to use it again, but *in increased doses*. So by order of the visiting staff I began the injection of serum in 35 patients who were more especially exposed to the contagion, and it occurred to me that some interesting matter might be found in a table showing the effect of the anti-toxine in the temperature, pulse, and respiration, so I append it below.

On January 13th, p.m., I injected serum into seventeen patients, using P. D. & Co.'s anti-toxine and in doses of 1,000 units. On the 14th I concluded, having injected in all thirty-four patients.

Now, the last case of diphtheria occurred on the 15th January, 1897, in a throat the swab of which was taken previous to immunization on the 14th. Since this case occurred there had not been a single case of diphtheria, though every throat was examined morning and evening and every congested one bacteriologically. From this it seems reasonable to give the credit to one of two things—*injection of 1,000 units of anti-toxine, or prompt isolation*. Local applications were not used, so no credit can be assigned to them.

I am not correct in stating that all the patients had 1000 units, as one little girl, 1½ years of age, suffering from suppurating tubercular cervical glands, was given 500 units, as I was somewhat timid about using a larger dose, yet, unthinkingly, I gave a boy of 2½ years suffering from ectropia vesicæ 1,000 units without any grave results, though he was in a far lower state of health than the previous case.

Deductions from foregoing statements:

1. 250 units is not enough for immunization purposes.
2. 1,000 units is a fairly reliable immunizing dose, and not a dangerous one.
3. Age and physical state of the patient do not require proportionately small doses.
4. Whenever practicable, anti-toxine in doses of 1,000 units should be used for purposes of immunization.

Method of making the injection:

I arranged the patients in groups, injecting a number in the thigh, a number in the pectoral region, others in the loin, and still others in the abdomen. The spot for injection having been selected, the area immediately around was thoroughly scrubbed with 1-20 ac. carbolic, and a com-

press of 1-40 carbolic, left on for 4-5 minutes. When the injection was to be made the compress was removed and the area again washed, but with boracic solution (1-20) and sterilized water, in order that the strong antiseptic might exert no deleterious action on the serum. I used a small aspirating syringe, which was very carefully sterilized; the bulb containing the serum was carefully washed off with 1-20 carbolic, and my own hands were surgically clean.

Means taken to prevent the spread of the disease other than anti-toxine immunization :

1. Complete isolation of each ward.
2. Daily examination of throats and immediate removal of suspected cases. In this way we were able to note any change in the condition of each child's throat and isolate the infected ones even before the appearance of the membrane.
3. Isolation of nurses in infected and suspected wards.
4. Gowns and rubber caps to completely cover the body were worn by the nurses in order that they would not carry the disease while off duty.
5. Separate spoons were used as tongue depressors in examining the throats. Each spoon was immediately afterwards placed in a 1-20 solution of carbolic, and subsequently boiled. Had the same tongue depressor been used in all cases it would have been impossible to be certain that the it was not a means of conveying the disease unless it had been soaked in a 1-20 solution of carbolic for at least 20 minutes.
6. All the soiled linen in the infected and suspected wards was rinsed in a strong solution of carbolic before being sent to the laundry, where it was immediately boiled, thereby preventing as far as possible this linen infecting that from other wards.
7. Visitors were refused admission to the hospital.
8. New patients were refused admittance until danger was over.
9. Operations were for a time suspended.

Observations on patients at the time of injection :

1. The absorption of the serum was quickest in the pectoral region, next in the abdominal region, still slower in the thigh, and rather prolonged in the lumbar region.

2. Pain was not marked on the insertion of the needle. Little pain will be caused if a sharp needle is used and rapidly it penetrates the skin. Comparing what pain there was, I think most was experienced by those who had the injection made in the thigh. The most pain was during the discharge of the serum. In the pectoral and abdominal regions this was much less than in the thigh and lumbar regions. I noticed that when the pain was most intense during the discharge of the serum by gently withdrawing the needle a little and changing the direction of the stream much less complaint would follow.

3. Erythema was noticed in three cases. Two cases were very marked and these were on thigh injections, while the third, which was scarcely noticeable, occurred in one in which the serum was inserted in the pectoral region.

4. In the pectoral region the injection is made much less painful by injecting a part subcutaneously, and gently pushing the needle on into the muscle and there completing the injection.

Observations on patients following injection :

Case No. 1.—Age 16, Jan. 13th, p.m. Injected on outer side of left thigh. Within half an hour after the injection a red area, with raised edges and very hot and painful, was present at the seat of injection. It resembled erysipelas very much, and caused me not a little uneasiness. Ice poultices were applied. These speedily relieved the pain, but in the next few hours this thick, raised area gave way to a number of small wheals greatly resembling hives. These gave no small amount of itchy sensation.

Jan. 14th.—Thigh painful; pain more severe than yesterday; redness diffused, though not markedly raised. Boracic poultices were now applied and frequently changed.

Jan. 15th.—Papules present, pain less, swelling decreased.

Jan. 16th.—Papules less in number; no pain or tenderness complained of whatever.

Jan. 17th.—Thigh apparently normal.

Case No. 4.—Patient next day after the injection was covered with a red, raised eruption so much resembling hives that the little chap said, "Doctor, I have got the hives during the night." The eruption began on the ribs, apparently followed the intercostal nerve, and quickly spread to the rest of the body, the face being markedly affected.

As he complained of the itchiness of the rash, I prescribed a mixture of menthol and carbolic acid to be used externally, which speedily allayed the irritation, while the bowels were freely opened with salines, and a mixture of pot. cit., spts., æth. nit., and syr. rhei. was used internally. This rash left the face and limbs almost as quickly as it appeared; the chest, however, was not free for some days later. In this case there was no eruption whatever at the seat of the injection.

Case No. 15.—Age 13. Injected in pectoral region. Within twelve hours after the injection a number of small red papules appeared on the foot and leg. Patient said she had hives. These, however, did not spread, and disappeared without treatment within twelve hours.

The detailed tabulated statement of the result of the injection is too prolix for publication, but the essence of it is given in the following table, which should be interesting, as showing how little systematic effect the serum had upon a series of children in poor health, suffering at the time of the injection from various diseases:

REGION.	Number of Injections.	TEMPERATURE.			PULSE.			RESPIRATION.			REMARKS.
		Increase in.	Decrease in.	Not affected.	Increase	Decrease	Not affected.	Increase	Decrease	Not affected.	
Thigh. ....	9	7	2	0	4	5	0	4	5	0	In one, marked decrease of pulse from 114 to 92. Temp. increase was only a fraction of a point in all but one, which was increased one point. In one, pulse increase from 115 to 162. Resp. increased 32 to 42.
Pectoral ..	10	7	1	2	6	2	2	8	0	2	
Abdominal	8	7	0	1	3	4	1	4	1	3	
Lumbar ..	7	4	1	2	4	3	0	1	2	4	
Total. ....	34	25	4	5	17	14	3	17	8	9	

In conclusion, let me say that though some of my deductions may not depend altogether on the data preceding, and some of my conclusions may not have been correctly taken; yet I hope I have added interesting matter to an already well discussed subject, and induced in others a desire for more accurate observation. If so, the object of my paper will have been accomplished.

A vegetable foreign body in the ear can be reduced in size before removal by instilling a few drops of glycerine or of alcohol and water.

**IODIDE OF POTASSIUM OR IODIDE OF SODIUM.**—According to Briquet (*Rév. Internationale Médecine et de Chirurgie*), the sodium iodide is preferable to potassium iodide in all maladies of the respiratory tract and for all rheumatic pains (*Therap. Gaz.*) The potassium salt is badly tolerated in many instances of hepatic disease, but is undeniably good in these cases. He has found that where the patients do not tolerate iodide of potassium well, the employment of iodide of sodium first prepares them for the potassium salt. He has also been able to get the effect of the iodine in many patients by the use of the sodium salt when the potassium was contraindicated because of its depressant effect.

**NERVOUS DISEASES OF SYPHILITIC ORIGIN.**—Collins (*Post Graduate*) tabulates cases of tabes dorsalis and other diseases of the nervous system considered to be of syphilitic origin. The conclusions he arrives at from the study of the case-books are as follows:

1. That exudative and degenerative diseases of the nervous system, due to syphilis, are most liable to show themselves at the end of the third and the beginning of the fourth decade of life.
2. Thorough and prolonged administration of antisyphilitic remedies during the activity of the virus does not seem materially to prolong this time limit.
3. That active and prolonged antisyphilitic treatment does not seem to prevent the development of such diseases as locomotor ataxia and general paresis. And, further, that the cases in which syphilis is confessed, and in which the treatment has been most desultory and incomplete, are not more liable to the earlier development of, or to the severe manifestations of, either of these diseases than those cases in which the treatment has been all it should be.
4. That the administration of antisyphilitic remedies in the most approved way does not fulfil the requirement of cure, and that syphilis is often an incurable disease.

**SANMETTO IN BRIGHT'S DISEASE.**—Charles F. Reiff, M.D., of Fremont, O., writing, says: "I prescribed Sanmetto in a case of advanced Bright's disease. The patient became more comfortable, and since then has used several bottles of Sanmetto. In my opinion Sanmetto is the most efficient remedy for diseases of the genito-urinary organs, and I shall continue to prescribe the remedy."

## OVARIOTOMY.

## OPERATING UNDER DIFFICULTIES—RECOVERY.

BY ALEX. FORIN, M.D., ROSSLAND, B.C.

In the following account of a laparotomy there is nothing exceptional to report, but in the house and surroundings as seen in the illustration.

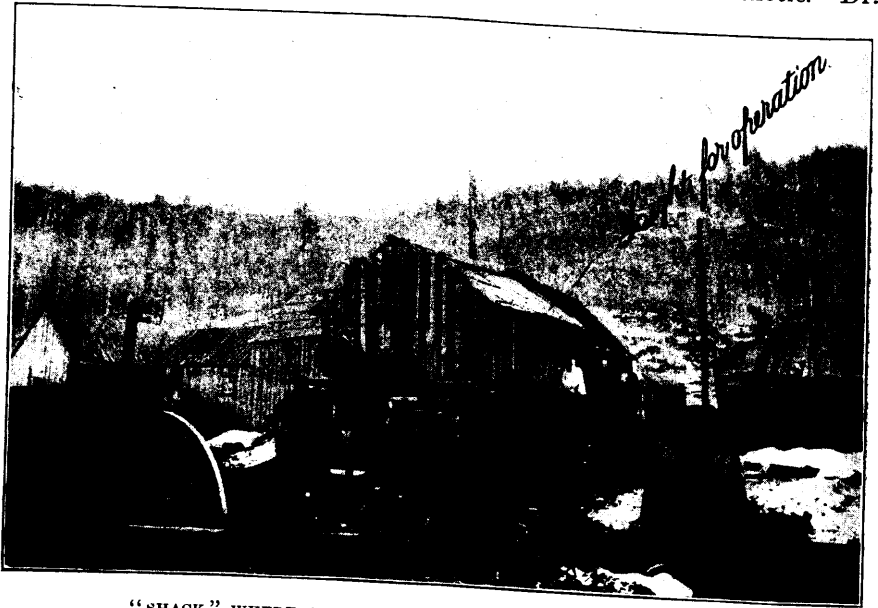
On the 15th of last April I saw the patient for the first time at her home about two miles out of Rossland. I learned that she had been under the care of Dr. H., who advised that she be taken to Spokane, some 150 miles distant, for operation. The patient was suffering severely from pain in the right pelvis. Upon examination I found a tumor in the region of the right tube; but the examination was not satisfactory on account of the tenderness of the parts internally, and a large, raw surface externally, the result of a blister that had been applied some days before. From the meagre examination I diagnosed ectopic gestation. The symptoms experienced by the patient substantiated such a diagnosis. Then, again, for about two weeks before and at my first visit, she had a bloody discharge from the uterus of a dark, shreddy and malodorous nature, also pointing to that condition. Consequently, I advised operation as soon as convenient. Sunday, the 18th April, was the time chosen. There was not much choice between removing her to Rossland, where we have no suitable place for aseptic work, or attempting the operation at her own home, which was a two-roomed slab shack, one room used as a sleeping-room, the other used as sleeping, kitchen, and dining-room combined; but finally the latter was selected. I told the husband that I wanted him to procure a new outfit for her bed, to be put in place during the operation, as the discharge that had been present for the previous two weeks had contaminated the bed and rendered it unsafe for the patient after so serious an operation. These instructions were not carried out; but this I did not find out until I put the patient back in her bed after the operation—there was not even clean sheets to put next her.

*Technique.* The patient was given a bath the night before—the abdomen scrubbed with green soap and warm water, then with alcohol, followed by bi-chloride solution 1-1,000. A poultice of green soap and olive oil was then put on the abdomen where it remained until the patient was on the operating table. The bowels were moved by cathartics and enemata; the bladder emptied by catheter. As for the dressings, I had them all sterilized the day before at my home; the gauze, sponges, pads, etc., were rolled in cotton and sterilized in a Boeckman (St. Paul) sterilizer for two hours, afterwards put in stout paper bags and tied securely; my gowns were treated in the same manner; the towels used were kept clean by putting in a pillow-case before being put in the sterilizer, and taken out as wanted for use. The sheets used on the table were also sterilized. My Kelly pad was washed in bi-chloride 1-500.

The instruments were boiled with the silk and silkworm gut in a soda solution for half an hour before operating.

I had plenty of boiled water at a proper temperature, and for preparation of our hands I procured five graniteware wash-basins. These were boiled before using. In one I had hot water with green soap on the side, another contained solution of permanganate of potash, another saturated solution of oxalic acid, in the fourth 1-1,000 bi-chloride solution, and in another was plain sterilized water to finish up with, a scrubbing brush in each washdish except the last.

After the patient was put on the table I cleaned the vagina preparatory to a curettage of uterus on account of the foul discharge, but found nothing of any consequence; I packed the cavity with iodoform gauze and then proceeded to the major operation, rendered necessary by the condition, verified by a further examination under the anæsthetic. Dr.



"SHACK" WHERE OVARIOTOMY WAS PERFORMED SUCCESSFULLY.

Kenning prepared the patient's abdomen by scrubbing, shaving, and cleansing with green soap, ether, bi-chloride solution and plain water. After making incision in the median line I had the patient placed in the Trendelenburg position; with difficulty I broke up the adhesions, during which I ruptured a cyst of the ovary, holding about a quart of fluid. I got the right ovary and tube out, and tying with silk as close to the uterus as I could with a quilted suture, three knots, cut off the tube, holding the pedicle with ligatures to see that there was no hemorrhage, finally cutting off the ligatures and dropping the stump into the cavity; I removed the gauze pads put in to hold the bowels back, lowered patient and douched with plain sterilized water; the normal saline solution had not been prepared as ordered the day before. The peritoneum I closed with separate continuous cat-gut suture; for the fascia and external

parts I used silk-worm gut taken all with one row of interrupted sutures, dusted with boracic acid and iodoform 6 to 1, then pad of iodoform gauze, plain gauze, absorbent cotton and a bandage, all having been previously sterilized; a perineal band to keep dressings in place. The patient was returned to bed, which, as before stated, was not in a very suitable condition to ensure best results. The specimen removed was now casually examined, and I found the wall of the tube much thickened and distended with a blood clot about the size of a walnut, but there was nothing further to corroborate my diagnosis of ectopic pregnancy.

The room in which the operation was done was 10-14, a kitchen-stove in one corner, and the bed, that was in another, was removed. While the patient was being anæsthetised a sheet was tacked to rafters to prevent dust or dirt from falling on patient during the operation, and to give better light. The operation lasted about one hour. The patient's pulse did not rise higher than 90, or temperature more than 99° F. until the 8th day, when a stitch abscess made itself manifest. I removed the dressings and stitches on the 9th day and found the wound perfectly healed; an abscess was present on the right side, caused, in my opinion, by passing the ligature through parts involved by the blister, that did not show until later, when I found the epidermis peeling off; the abscess readily healed, evacuating through the stitch-hole, and although we do not crave such complications I look upon them as a benefit, in that the cicatrix is rendered stronger thereby, and there is less danger of ventral hernia. The bowels moved on the third day under mag. sulph. in drachm doses and glycerine and water enemata. The patient made an excellent recovery, and two weeks after operation was sitting up feeling well. Dr. McKenzie gave the anæsthetic (ether), and Dr. Stevenson, of Trenton, Ont., was present as a visitor. As stated before, Dr. Kenning was my assistant, and my brother, a barrister by profession, handled the instruments for me, as I had no glass-covered stand to put them on, and I could depend on him to follow my directions strictly in preparing hands and not touching anything unclean while the work was being done. The nurse was a neighbor who had had some experience in Portland, Oregon, but is not a trained nurse.

I hope some day to have suitable quarters for such work up here in the mountains.

ERYSIPELAS.—Nabugnow has cured 200 cases of erysipelas with ichthyol applications first recommended by Nussbaum. The ointment is bound on with a roller bandage, or in case of facial erysipelas is held in place by a mask. The following is Nabugnow's formula:

- R. Ichthyol.....10.0 to 20.0
- Petrolati..... 5.0
- Lanolini.....15.0

M. Ft. Ungt.—*Wratschebinja Sapisski, 1896, 2.*



## SURGERY.

IN CHARGE OF

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### INTESTINAL ANASTOMOSIS BY THE MURPHY BUTTON.

BY JAMES H. DUNN, M.D.,

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About 2 p.m., January 1, 1896, Sister S., a nurse of St. Mary's Hospital, aged twenty-five, was taken suddenly, while lifting, with a severe pain in her right groin. Having experienced similar transient attacks twice before, she went to bed, applied hot applications, and awaited my regular round before calling medical aid. On my arrival at 10 a.m. on the second, I found her suffering from a strangulated femoral hernia. After an



hour's delay, at the patient's request, operation under chloroform narcosis was undertaken. The pain and distress had evidently been pretty severe during the twenty-one hours of strangulation, but there had been little vomiting, and the incarceration was so brief that I was taken by surprise, on opening the sac, at finding three inches of small intestine, its only contents, apparently gangrenous. The opening was enlarged sufficiently to relieve all constriction, the loop drawn further down, warm, moist compresses applied for twenty minutes, when it became perfectly evident that the loop of intestine was necrotic, and that a

resection of a trifle over three inches of small intestine must be resorted to. The segment was cut out with scissors between the fingers of an assistant, and an end-to-end anastomosis with a Murphy button readily established in about ten minutes. The intestine was then returned, the deep parts closed with fine silver-wire buried sutures, and the skin by a continuous subcuticular silk worm gut suture. The patient made a perfect recovery, without vomiting, pain, febrile reaction or other disturbance. The button was passed on the eleventh day—the earliest that I have observed in my cases. The subcutaneous stitch was withdrawn on the fourteenth day. She kept the bed for four weeks, when she resumed her duties as nurse, and up to date, thirteen months, has been in perfect health, without recurrence of the hernia, or any disturbance of the gastro-intestinal tract. The buried wire sutures have caused no irritation; though in one or two other instances among many cases in which I have used them they have been the cause of slight discomfort at times. My previous experience with the button is as follows:

No.	DATE.	NAME.	AGE	OPERATION.	BUTTON PASSED	REMARKS.
1	Dec., '93	Mrs. M.	37	Cholecystenterostomy.	18th day	Recovery; was well when last heard from, 1½ years subsequently.
2	June, '94	Mrs. E.	52	Do.	16th day	Recovery; health good to date.
3	Aug., '95	Mr. J.	45	Entero-colostomy for carcinoma of caput coli.	15th day	Decidedly relieved for several months; was still living but falling seven months after operation.
4	Oct., '94	Mr. D.	46	Gastro-enterostomy; carcinoma ventriculi.	14th day	Relieved of pyloric obstruction; died after three months, result of autopsy, see figure.
5	Nov., '94	Mr. F.	57	Gastro-enterostomy for carcinoma ventriculi.	13th day	Relieved of obstructive symptoms; died from dissemination of the growth nine months later. Case reported to <i>N.W. Lancet</i> , June 15th, '95.
6	Oct., '95	Male	30	Resection as matter of form, and remainder of small intestine fixed into side of colon.		No History. Entered City Hospital with enormous irreducible scrotal hernia; apparently moribund condition; seven feet of small intestine gangrenous. Result: died in four hours.

That is to say, I have had occasion to use this device in seven operations, viz.: two cholecystenterostomies, two gastroenterostomies, one end-to-end anastomosis of small intestine, one entero-colostomy, and one anastomosis of end of resected ilium to the side of the ascending colon. Excluding the latter case, in which no treatment could have hoped to avail, the button has served me with the utmost satisfaction, inasmuch that it seems difficult to believe that any other method could have given in my hands so good results.

As a rule, I have little confidence in machine-made surgery. Of the innumerable mechanisms devised for performing stated operations or definite steps of surgical procedures, few have stood the test of general practical experience, and it may doubtless be affirmed that the broader the mind and experience of a surgeon, the less his inclination to rely

upon complicated apparatus, and the greater his trust in knowledge and skill applied with simple agents. It is not easy to recall an instance, save in an intestinal anastomosis, where knife, scissors and needle may do the work, in which one would ordinarily prefer to rely upon a mechanism for the performance of the most critical step of the operation. However, in these operations the well recognized desiderata are so exacting as to well-nigh defy manual deftness, and incline the greatest masters of surgical technique to seek aid in various mechanisms, in which the Murphy button has appeared to me the most generally useful in theory and practice yet devised.

After some experience with the various sutures, plates and the button, I have to conclude:

1. No other method of anastomosis can compare in rapidity and ease with that by the button. None requires so little destructive handling of the viscera, none so conserves asepsis in handling an open intestine.
2. A good button applied with skill is more trustworthy against leak and slip than the stitching of any surgeon, however skilful.
3. On its separation (which appears to be pretty uniform at about ten or twelve days), no foreign substance is left in the tissues, and while present it does not act as a septic seaton to convey infection into the tissues, as deep sutures must do.
4. The scar is but a fine line scarcely discoverable on the peritoneal surface, and with but a minimum of connective tissue. The opening, a trifle larger than the button, presents every guarantee possible to any reunion against contraction, viz.: a rapid, aseptic and complete healing, which cannot lead to progressive contraction unless disease subsequently attacks the scar. It is a ragged, delayed, septic wound which leads to cicatricial contraction. There seem to be many objections still urged against the button, most of them theoretical rather than practical. Any one who has used or even seen the button used, must admit the wonderful rapidity and ease of executing these operations by its use. It is difficult to see how any mechanical mind can doubt its greater accuracy of coaptation. That its work is more liable to progressive contraction than any other method of reunion whatsoever is disproven by both experience and theoretical deduction from known pathological principles.

Of all the objections which have come to my knowledge, but two would appear worthy of much credence, viz.: 1. In a few cases, especially of gastro-enterotomy, the button has failed to pass. Under ordinary circumstances, when the opening is at the most dependent part of the larger viscus, this accident must be rare. As already observed, the button has been promptly recovered in each of my cases; and a large experience of the profession in general has amply demonstrated that under ordinary conditions no apprehension need be exercised on this score. Under conditions which might excite a fear of the button falling into a cul-de-sac powerless to expel it, further modifications in the operative technique will, doubtless, prevent this accident. Dr. W. J. Mayo, of Rochester, Minn., has suggested attaching a thread of considerable length to the button and carrying it into the distal portion of the intestinal tract, as a "hold" for the peristaltic force of the tract. The suggestion

seems sensible, and may prove useful in certain gastro and cholecyst enterotomies, in which a powerless pocket awaits the loosened button, should it drop off on the wrong side. 2. Some have feared that the small opening in and the weight of the button might lead to acute obstruction. Certainly experience has shown this to be more theoretical than practical. Obstructions after abdominal operations, from one cause or another, occasionally occur; but they have not been especially frequent after the button.

In short, if I were under the unpleasant necessity of having to undergo an anastomotic operation on my own primæ viæ, I would doubly prefer to trust to the risks of the button than those of any suture or other device yet discovered in the hands of any operator.

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### PNEUMONOTOMY.

From an article published in the *British Medical Journal* we learn that Dr. Quincke has tabulated and analyzed fifty-four cases of pulmonary abscess treated by surgical operation. These cases, seventeen of which were treated by the author, are arranged in three groups: the first of acute abscesses, both simple and gangrenous; the second of chronic abscess and putrid bronchiectasis; and the last of putrid suppuration caused by a foreign body in the lung. In a large proportion of the fifty-four cases (eighty-three per cent.) the inferior lobe of the lung was the seat of the disease. Of the total number of patients, twenty recovered and twenty died; in the remaining fourteen cases, the surgical treatment either failed altogether or gave but imperfect results. The author makes out from his collection of records that while the mortality from operative interference is almost equal in acute and in chronic cases, the percentage of complete recoveries is higher by about forty-five in the former than in the latter. It is concluded that the operative treatment of acute pulmonary abscess will be attended with complete success in two of every three cases. The prognosis of such treatment in such cases of chronic, and especially putrid, abscess is much less favorable. The author believes, however, that in future better results may be attained by earlier intervention. Surgical treatment, he holds, is indicated in cases of acute abscess which show no tendency to spontaneous healing. The prospects of an operation in such cases are better than those of an expectant treatment. If such suggestion be generally followed chronic pulmonary abscess with secondary bronchiectasis will, it is thought, less frequently be observed. Notwithstanding the less favorable prospects of operation in cases of chronic pulmonary abscess and sacculated bronchiectasis, such treatment is here recommended for these morbid conditions with the view of protecting against acute secondary inflammation the portion of lung still remaining sound. In cases of multiple bronchiectasis, although *a priori* a good result could hardly be expected from surgical operation, still, the author thinks, improvement may be brought about by such treatment. As such a condition constantly threatens fresh and fatal mischief, an operation,

though not clearly indicated, need not be regarded as unjustifiable. In discussing the diagnosis of pulmonary abscess the author regards as important indications the purulent nature of the expectoration and the presence in the discharge of minute portions of broken-down lung tissue. The quantity of expectorated fluid, he points out, affords no sure indication of the size of the cavity. In considering the diagnosis of the seat of a supposed pulmonary abscess, he states that when on general grounds the existence of such a cavity is assumed, and a localized area of dullness exists without any distinct local symptoms of suppuration, this area should be selected as the object of the surgical attack. If not the precise situation of the disease, it will in most instances serve as a guide to the purulent collection. Exploratory aspiration is objected to as a measure of diagnosis. It will not show whether the cavity be a large or a small one, and is a very probable source of danger in cases in which the affected portion of lung is not adherent to the wall of the chest. The author, in concluding his paper, describes his method of treating pulmonary abscesses, which consists in resection of portions of one or more ribs, free exposure of the parietal layer of pleura, and in making with the thermo-cautery a free opening into the cavity after he has assured himself that adhesions exist between the lung and parietal pleura, or by a prolonged application of caustic has artificially established such adhesions. Pleural adhesions at the seat of operations he regards as an imperative condition in pneumotomy. If there be any doubt as to the existence of such adhesions the surgeon must act upon the assumption that they are absent.—*Med. Record.*

#### SURGICAL HINTS.

When an operation under chloroform has been finished, pour vinegar upon the mask until it is well saturated, and leave the mask in place. As the vinegar evaporates more should be added. This simple procedure has a marked effect in preventing or modifying the nausea after chloroform anæsthesia. It was first advised by a French surgeon, who says that it acts by the vinegar's forming a non-irritating combination with the chloroform vapor already changed in the lungs.

Phlegmon of the hand is frequently followed by considerable disability, which may become permanent. This is due to the binding together of the soft parts by contracting scar tissue, and the process may go so far as to cause ankylosis and even subluxation of joints. It is possible, in a great measure, to avoid this unwished-for result by insisting upon active and passive motions from the time of the very beginning of the healing process. The frequency of the motions is more important than the force exerted. Pain after the exercises shows that they have been too vigorous. The joints should be moved several minutes at a time, amounting in all to two or three hours in the course of the day. The patient himself can usually carry out this treatment if the dressings are properly arranged. Do not wait till the wounds are healed, or your patient may be irreparably disabled.

Deep, rapidly-increasing pain in an arm or leg, accompanied by a swelling without redness or fluctuation, together with high fever or chills, is the typical picture of acute osteomyelitis. The disease at this stage, which may be a few days or only a few hours from its onset, is indeed one of the emergencies of surgery. The diagnosis must be carefully but fearlessly made and the treatment speedily instituted, for delay may mean death or life-long deformity. No temporizing should be permitted once the diagnosis is clear, but free incision to the bone, with chiseling into its marrow, should be at once performed. You will not find pus as a rule in these early cases, but a periosteum which is easily peeled from the bone and a cortex which bleeds but little. Immediate relief of symptoms will show that you have not struck amiss. The frequency of necrosis of bone would be greatly reduced if these timely operations were more common. Unfortunately, the procrastinating poultice or the icebag too often has its day, and in the meantime local tissue destruction and general sepsis may compromise the case. Remember that any bone may be the seat of acute osteomyelitis, although it is oftenest encountered in the long bones.

#### SURGICAL ITEMS.

My experience, as well as that of other surgeons accustomed to operate for head injuries, suggests the "bull" that in "*trephining*" for depressed compound comminuted fractures, *never use a trephine*. The instruments usually necessary are a knife, a pair of blunt-pointed scissors, a chisel, a good, sharp, strong Hopkins rongeur, two or three bone forceps with different curves, an elevatorium, two thumb forceps, one "rat-toothed," a half-dozen hemostatic forceps, small and medium-sized curved needles, and a good needle-holder, small and medium silk, silkgut and catgut for sutures and ligatures. The small needles should be previously threaded and ready for instant use.—*Estes*.

A fearful notion has swept over the country that to excise something is *per se* a great and glorious thing, and that to operate is necessarily to be a surgeon. This is, indeed, a very puerile error. There is an old remark that certain physicians see many patients, but few diseases. I fear something similar might be said of recent surgery. Is not this in some measure the natural result of the great, almost exclusive, attention given to operations *per se*? Have we not been largely passing through a kindergarten stage of surgery, in which the struggle has been to teach everybody, by pictures, diagrams and "gifts," the technique of hysterectomy and other "ectomies?"—*J. H. Dunn*.

TREATMENT OF EPILEPSY.—Viewed from the standpoint of a neurologist, the present status of the surgical treatment of epilepsy is formulated as follows (Dr. F. Peterson, *N.Y. Med. Jour.*):

1. In about one per cent. of all cases of epilepsy an injury to the head will be found to be the original cause.
2. In a much larger percentage an old meningeal hæmorrhage, congen-

ital or acquired in infancy, giving rise, in addition to the epilepsy, to various degrees of paralysis, idiocy, or other cerebral symptoms, and presenting, on examination, brain atrophy, sclerosis, and cysts as sequelæ to the primary lesion, will be ascertained to be the cause.

3. In the present state of our knowledge and experience, those cases due to meningeal hæmorrhage should not be operated on at all.

4. In the very small number of cases having injury to the head as the cause, the epileptic habit is so strong, and the changes in the brain are usually so old and deep-seated, that an operation, as a rule, does not cure, and only seldom permanently diminishes, the frequency of the attacks.

5. Of the miscellaneous traumatic cases, where a surgical procedure seems justifiable, and is undertaken, a cure may be reasonably expected in, perhaps, four out of every hundred cases operated upon.

6. The removal of a cicatrix from the cortex supposed to be the epileptogenic nidus, will naturally be followed by the formation of the new cicatrix in the surgical wound, and is scarcely a defensible procedure.

7. The more recent the injury the greater will be the promise of lasting benefit. If a hundred cases of epilepsy could be selected, in which the trauma dated but a few months back, trephining and ablation of the morbid tissues would, doubtless, prove curative in a very large percentage of cases.

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TREATMENT OF APPENDICITIS.—McBurney (*Medical News—Br. Med. Jour.*) points out that there is no medical cure for appendicitis, even though some cases recover without operation; and while he considers appendicitis a surgical disease, yet operation may not be necessary in every case. The true cause of this affection is probably a stoppage of the drainage from the appendix to the colon, and preliminary treatment is often worse than useless. The opium treatment relieves pain and discomfort, but entirely masks the symptoms at a most important time, for it is in the first twenty-four hours from the beginning of the attack that we can decide not only as to the diagnosis, but as to the probable course and result of the case. If in five or six hours there is no increase in urgency the patient is not in immediate danger if kept at perfect rest in bed; if in twelve hours there is still no increase in the severity of the symptoms the patient should soon begin to improve. On the other hand, if the urgency of the case has steadily increased in twelve hours from the time when the diagnosis was made, an operation will probably be called for. After two attacks a patient is sure to have a third, and each attack renders operation more difficult and dangerous. All the advantages lie with operation between the attacks. In an operation during an acute attack the prognosis is worse. In operating between the attacks it is rarely safe to do so in less than two weeks after an acute attack. McBurney was formerly more willing to operate during the attack than he is now. The chief cause of death is delay of one sort or another. In abscess cases the sooner we operate the better.

**MEDICINE.**

IN CHARGE OF

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**CANCER OF THE RECTUM.**

BY B. B. FOSTER, M.D., PORTLAND, MAINE.

My experience with cancer of the rectum has been limited, and therefore, I must content myself with gathering material from others for your consideration, thus to learn your views, and trust all may derive benefit.

Herbert W. Allingham says: "A careful consideration of the experience of other surgeons, together with my own study in hospital and private practice, has left me without any definite opinion as to the cause of cancer of the rectum. Opinions are so different, statistics are so contradictory, either in statement of facts or in arguments therefrom, that it is impossible to state any dogmatic views as to the etiology of cancer in this portion of the body."

Charles B. Kelsey has quite avoided any mention of the cause of rectal cancer except in a general way, and it is fair to presume that his mind is not settled on the subject, as he says: "A cancer of the rectum may and often does begin so insidiously that its existence is not suspected even by the patient until it has made irreparable progress."

This is the condition that is most likely to come to your notice when the disease begins well up in the bowel, beyond the reach of the sphincter, as cancer of this organ when located within the grasp of the sphincter, gives much pain; and the character of the pain is of great assistance in diagnosis.

Joseph M. Mathews, after reporting three cases of rectal cancer, says: "These cases illustrate the fact that the course of the disease is often insidious. They also demonstrate that the well-recognized symptoms ordinarily observed in cancer of the rectum may be absent." He then at some length discusses the cause, saying: "Those who insist that cancer is a constitutional disease with local manifestations might, with a good deal of force in their argument, say that malignant trouble frequently exists in the rectum when traumatism could play but little part."

When speaking of traumatism, it should not be supposed that it is necessary to find a wound of any extent or dimensions. A lesion scarcely perceptible to the naked eye is quite sufficient to admit the micro-organisms which produce tetanus, and a lesion in the rectum of the same insignificance may be the starting-point of cancer.



We have said that a local irritation of malignant growths will excite them to further development. We can also add that local irritation may excite a cancer, thereby being its cause. It is proverbial of the chimney-sweep that he is a special subject for cancer, and yet I imagine that no one would take the position that cancerous patients were habitually chimney-sweeps. It must, therefore, be due to the local irritation that the malignant abrasion was started, and that it increased by said irritation being kept up.

The belief is common that a point of whalebone will set up an irritation which may end in malignancy; and it has become a common practice with physicians, whether they believe it or not, to try and trace the tumor in the woman's breast to the pressure of her corset.

I dare say that there are but few surgeons who are not able to trace cancer in some of their patients to a blow or fall, or to some sort of irritation at a local spot; and how often in cancerous growths embracing the periosteum the disease can be traced to some injury. It is also a recognized principle in surgery that growths of any kind should not be subjected to a continual local irritation. Therefore, apropos of this line of thought, the anatomy of the intestines, taken along with the physiology of defecation, proves the fact that there are three points of retention and accumulation of the fecal mass, namely, the cecum, the sigmoid flexure, and the rectum. The cecum is the starting-point of this mass, from which it is hurried along to the sigmoid flexure, and then dropped into the rectum. If the mass does not pass anti-peristaltic movement lifts it back, or much of it at least, into the sigmoid, and there it remains for a time in its dried condition.

Now it can be easily understood that all of the mass, perhaps, does not start on its onward course from the cecum; some of it remaining becomes dried and acts as a local irritant. Then the sigmoid, becoming the receptacle of the mass when refused by the rectum, and the rectum holding a portion of the mass each day, both are irritated thereby.

The natural pathology would be that a congestion of the blood-vessels was started at one of these points, which was followed by an abrasion and inflammation. The fight still wages with pathologists whether it is the appendix vermiformis or the cecum which is responsible for the degree of inflammation, and consequent suppuration, which is so often followed by death; and yet I imagine that there is no one so enthusiastic in his advocacy of the appendix's being responsible for this condition who would not admit that the cecum frequently becomes impacted with feces, which results disastrously.

It will be admitted that the three points named—the rectum, the sigmoid flexure, and the cecum—are favorite seats for cancer.

We have shown how it is possible that an abrasion may be made by these hardened feces, and a continual irritation is kept up by their presence. Therefore I am not willing to admit that cancer cannot be caused in the rectum by trauma as well as in any other part of the body.

That mechanical irritation, either from continued pressure or from a constant rubbing of the part, will produce cell-growth cannot be denied. We have many examples of it in small benign tumors which grow in this

manner. We are all suspicious of warts, and advise the patient not to subject them to a continuous friction. If they are so subjected, we see the evidence of it in rapid cell-growth. The natural follicles of the gut may be by such friction the starting-point of cancer. It is frequently urged, to rebut such evidence as this, that secondary deposits take place from cancer in different organs of the body. I cannot think that this disproves the local origin of cancer any more than to say that we find tubercular disease in the rectum in the man who has a tubercular deposit in his lungs. The lymphatic system is very wonderful, and may be responsible for the migration of the micro-organisms, cells, or what-not which produce the disease. Whatever may be the solution of these knotty problems, the thing of the most moment to us in dealing with growths about the rectum is to distinguish between the malignant and the non-malignant. When this problem is solved we may consider the treatment.

Thus you see that Mathews has only a theory which he has attempted to substantiate by a long discussion; but to my mind there has not been much proven, and the true cause is still to me a hidden mystery.

Van Buren in his lectures makes no definite statement as to the cause of rectal cancer, thus indicating that he was not disposed to be on record as to the cause of the disease.

After presenting to you these few opinions as to the cause of rectal cancer, I am sure you will feel entirely at liberty to indulge in opinions of your own, and have the assurance that they may be as well founded as any. As for myself, up to date, I am non-committal, and such I find to be the condition of a large number.

For the purpose of diagnosis it is important for us to understand some of the leading symptoms of rectal cancer, and on this point I am sorry to say there is not so much definite knowledge as could be wished, for in many cases it is exceedingly difficult to determine the difference between benign and malignant conditions, such as ulcerations, strictures, etc., since there is nothing in the history which the patient gives that is of much value in this direction; yet when we find a patient beyond the age of 35 years complaining of pain with constant irritation of the rectum, accompanied by frequent defecation, streaked with pus and blood, which has come on in a short time, and the patient losing flesh, it will be a signal to make a careful physical examination, which, by the way, should be conducted with great care after putting your patient under the influence of an anæsthetic. No doubt most cases may be diagnosticated by the history and by physical examination with the finger alone when one is the possessor of extensive experience and knowledge.

Cancer in this locality is a disease of rapid growth; therefore, when you have a patient complaining that an obstruction has existed for some years, this fact alone goes a long way to prove that the condition is not malignant, and *vice-versa*.

Much may be learned from the general appearance of the patient, but most of all, I am inclined to think, from the digital examination. The experienced observer may derive satisfactory evidence from a very peculiar odor which exists in most cases, and which generally offends the

olfactory nerves to such an extent that they ever afterward retain the impression. In the early stages the hard and more or less distinctly circumscribed new growth which has infiltrated the walls of the bowel is diagnostic. Simple benign growths are likely to be located on or attached by a pedicle to the mucosa; while cancer infiltrates the sub-mucous tissues and has a circumscribed hardness. Cancer also early infects the lymphatics, which is not true of benign growths. Often one may find much difficulty in distinguishing between an advanced case where the rectum is partially occluded by hard masses of disease, and an old case of stricture and ulceration which is not malignant. Syphilitic disease is not infrequently taken for cancer.

There are cases, no doubt, in which the microscope is the only means of making the diagnosis, and yet many claim that even this source of information is not at all times reliable.

When we find a soft, friable mass of epithelium located on a hard, infiltrated base which is ulcerated in spots the edges of the ulcers being hard and raised, the diagnosis is easy. Cancer located high up in the rectum or sigmoid flexure, even when causing stricture, is difficult to diagnosticate, and will often escape a very careful observer, and may even end fatally from acute obstruction before the symptoms have been so pronounced as to cause suspicion of its existence. This may depend upon the fact that this portion of the canal is quite moveable, easily displaced and liable to be obstructed by a growth so small that it would give but slight trouble when located lower in the rectum. There appears to be no method to diagnosticate this condition in its early stages except by the fingers, hand and bougie; and here great care should be exercised, for it is an alarmingly easy thing to tear the bowel and receive as your reward a sudden death.—*Journal of Medicine and Science.*

#### A CASE OF DERMATITIS DUE TO THE X-RAYS.

In the *Bulletin of the Johns Hopkins Hospital* for February, T. C. Gilchrist, M.R.C.S., L.S.A., reports a case of dermatitis which has a sufficient number of interesting points to make it worthy of record. Since the discovery of the X-rays by Röntgen, among the thousands of observations and experiments, both in this country and in Europe, in which hundreds of investigators have exposed various portions of the body, particularly the hands, frequently and for long periods of time, but very few cases have been reported where injurious results have followed. In most cases thus reported lesions of the skin, resembling sunburn, occurred, sometimes accompanied by swelling and usually followed by an exudative eruption, exfoliation of the skin and loss of hair. These cases differed greatly in the proportion of the severity of the trouble to the length of time and frequency of exposure. The skin of the trunk appeared to suffer the most severely, although when the hand was the part affected pain was the most prominent feature. The majority of observers describe a peculiar redness or erythema at first, then swelling of the derma, followed by a deep discoloration of the skin until it becomes quite a dark

brown color. Exfoliation of the pigmented skin followed. In a number of cases vesiculation occurred after the hyperæmia. The most severe effects followed after exposing the same region again to the rays when the lesion had only partially or wholly healed. The lesions on the abdomen and back were, rather curiously, unaccompanied by pain, while severe pain was usually present with the eruptions on the hands.

Many theories have been advanced as to the cause of these lesions. Some have supposed them to be due to frequent and long exposures, others have compared them to severe sunburn, and Tesla believes that they are due to the ozone generated and coming in contact with the skin, but no one of these theories holds ground.

The particular case referred to is reported as follows :

"The patient is a healthy looking man, thirty-two years of age, who came to me November 18, 1896, with the following history: During the first week in September he exposed his right hand, wrist and lower portion of the forearm to the X-rays while exhibiting an apparatus, each exposure lasting two or three minutes. No bad results followed, but on October 1st he came to Baltimore and resumed the use of the X-rays for the same purposes. After he had exposed his hand for three weeks, for four hours daily, he noticed that the skin of the back of the hand, wrist and forearm began to turn very red and became 'puffed up,' although he suffered no pain. The swelling first occurred on the back of the hand from the knuckles to the wrist, then 'inflammation set in' and he was compelled to stop his demonstrations. From October 21st the hand, wrist and lower fourth of the forearm gradually became more inflamed and swollen, and the lesions spread to the fingers. The affected area ached and throbbled so much that he frequently could not sleep at night; there were also shooting pains which gradually increased in intensity, and extended along the ulnar side. These symptoms continued for a week, when the patient consulted Professor Chambers, of Baltimore, who advised him to bathe the hand frequently in hot water, and ordered bromides internally with benefit. The symptoms were much relieved and the swelling had gone down considerably in two weeks' time. Three weeks after he had first sought medical advice he consulted me about the diseased condition of the skin.

"The right hand, on its dorsal surface, presented a deeply pigmented condition. The skin over the fingers, hand and wrist was of a very dark brown color, and part of it was already exfoliated and was dry, infiltrated and wrinkled. The patient said that it was more of a greenish hue at the end of the first week after it became affected. In places near the lateral margins of the hand a slightly vesicular appearance was presented. They were not true vesicles, but were due to the loosening of the surface of the epidermis, and contained only air. The pigmented skin could very easily be peeled off without any pain, leaving a dull, dry, reddish surface beneath. On comparing the two hands they were found to be practically of the same temperature. The palmar surface was dry and paler than that of the normal hand, but the palmar surface of the fingers appeared swollen. Ten days later the exfoliated epidermis had all been removed, and the skin presented a glossy appearance, and over the fingers seemed to be tighter

than on the healthy hand. On careful examination the patient complained of rather severe pain when the first phalanx of the right index finger was grasped, and it was then noticed that this bone was distinctly thickened, especially as compared with the corresponding phalanx of the other hand. The first and second phalanges of all the fingers were found to be thickened, but the increase in size was most marked in the first phalanges of the index and second fingers. Further examination of the other bones of the hand revealed a very painful spot over the wrist joint. The metacarpals were also tender on pressure, and the head of the second metacarpal was enlarged. The hairs were found to be less numerous on the affected hand, but they may have been removed in tearing off the exfoliating epidermis.

"All movements were quite difficult of accomplishment and very painful. When the patient first consulted me voluntary movements of both fingers and hand were abolished, except of the little finger, which could be slightly flexed. Wrist movements were also very limited in extent and caused much pain. The thumb and fingers could scarcely be apposed. The patient could not pick up a lead pencil or penholder, and could grasp with but slight force; if he could get his finger or thumb under an object he could pick it up. He complained of the joints being very stiff. Sensation was very much impaired before exfoliation occurred, and even after that it was much diminished as compared with the normal hand. The sense of touch on the palmar surface was also markedly decreased.

"Two portions of skin were excised for histological purposes on the first day. One portion was taken from the dorsal surface of the third finger and the other from the lateral margin of the hand over the base of the metacarpal of the little finger. Neither stained nor unstained sections demonstrated the presence of any foreign particles, and only showed chronic inflammatory changes. The horny layer was thickened and half of it was partially detached. A large number of brown pigment granules were found in the exfoliating portion. The mucous layer was not thickened, but it was more pigmented than normal. In the corium the vessels were dilated and the pigment cells of the papillæ were almost as numerous as are usually found in a section of negro skin.

"The photographs have revealed what has never been observed before, viz., a distinct osteoplastic periostitis, and probably an osteitis, particularly of the first and second rows of phalanges of the index and second fingers, also of the heads of metacarpal bones of the same fingers, and, judging from the symptoms, even of some of the carpal bones. This, then, accounts for the severe symptoms, the aching, throbbing and shooting pains which prevented sleep. The density of these bones has also been increased, showing that even bone tissue has been affected. As the result of these observations it proves that the X-rays are even more powerful than have been generally thought; that the deleterious effects can in some cases be quite serious, and that the cutaneous manifestations are not the most severe of the lesions but those of the deeper tissues, and particularly of the periosteum and bones, being more severe.

"I do not think that the possibility of injury ought to deter any from

using these wonderful rays in surgical work, because only a few have been affected out of thousands who have been exposed to them. By keeping, as Thompson says, some distance away from the rays, injurious effects will hardly follow their use, particularly when the exposure is for a short time."

### INGUINAL ORCHECTOMY.

A method of orchectomy which I have called the inguinal to distinguish from the scrotal is based on the principle that all interference with the scrotal tissues during the operation is dangerous and unnecessary. An incision of from one inch to one and a half inches long, and slightly curved with its concavity looking downwards and outwards, is made over the external abdominal ring in the line of the spermatic cord. The cord is exposed and isolated. It is then seized with the fingers of the left hand and pulled gently upwards. With a blunt dissector the subcutaneous tissue is freed, first from the lower part of the cord, and then from the testicle as it appears in the wound, the left hand keeping up gentle traction on the cord while this is being done. The testicle is delivered through the small incision and the cord dealt with in the usual manner. Afterwards the scrotum is invaginated through the wound in order to inspect the bed of the testicle for bleeding points, which in the two cases I have operated on were conspicuous by their absence. The incision is then closed by a continuous horsehair suture.

This method has many advantages over the scrotal method of castration. The short incision passes through the firm cellular tissue over the external ring, and the testicle is shelled out without any disturbance of the loose vascular tissue of the scrotum. The slightness of the vascular connection between the testicle and its bed is shown by the frequency with which it appears in the wound during the operation for the cure of inguinal hernia. Hence the risk of hemorrhage into the tissues after castration is done away with. Owing to the absence of dartos the edges of the incision can be accurately brought together, and in forty-eight hours the risk of infection from without is past. The delayed union so common in scrotal incisions is avoided. It may be well to include the scrotum in the dressing, pulling it upwards and forwards. Should it, however, slip down on the perineum, the incision will still be well covered by the dressing. If it is thought preferable a sealed dressing may be applied immediately after the operation. Any sealed dressing applied to the scrotum itself would certainly become loosened by the dartos within a few hours, but on the smooth skin over the external ring it may be relied on to keep firm and close. Should any dribbling of urine occur, the incision is well above the end of the penis instead of being immediately underneath it, and is thus much less likely to get wet. Finally, the time of the operation is shortened, because there is less trouble with bleeding and the incision can be more quickly sewn up. In the two cases in which I have had the opportunity of trying this method healing took place by primary union without rise of temperature or other complication. The long scrotal incision appears to me to be a relic of the

time when surgeons recognized that their wounds must of necessity become foul cess-pools, to be drained and cleared out on ordinary sanitary principles. A scrotal incision is only necessary when the testicle is much enlarged, or adherent to the skin.—W. S. HANDLEY, M.B., in *Lancet*.

### DIABETES IN A YOUNG CHILD.

The chief interest in the following case, reported by Mr. Horace Wilson, of Port St. Mary, lies in the extreme youth of the patient. *It exemplifies the advisability of examining the urine in all cases of nocturnal incontinence in private practice* where this examination is not a proceeding of routine, as in hospital work. Mr. Wilson was called to a child aged four years, the son of healthy parents, and the fourth child of a family of six, all of whom were strong and well with the one exception. The patient seemed to be well nourished, bright and intelligent, and made no complaint of feeling badly. His mother, however, complained that he was growing thin and that he had been wetting the bed during the previous two weeks. On examination the bladder was found to be empty and the prepuce slightly excoriated; there was no tendency to phimosis, no pain or tenderness anywhere; the tongue was moist and of good color and the bowels regular. The tincture of belladonna was prescribed in small doses, and directions given to wash the prepuce twice daily with boracic lotion. A week afterwards the child was much paler, appeared more wasted, and was with difficulty aroused to answer questions. He had been vomiting constantly since the previous afternoon and had for the first time wetted his trousers, being apparently unaware of the fact. Close questioning of the parents elicited the facts that he had drank large quantities of water for the five weeks previously, and that "although he had not been well, his appetite seemed to improve." On examining the urine the specific gravity was found to be 1035, and it contained six grains of sugar to the ounce. The total amount passed could not be estimated. On the following day he was pale and emaciated, with cold extremities and small pulse. His pupils reacted to light, but he was quite comatose; his breathing was heavy and labored, and he was making no effort to swallow. The bed beneath him was "floury" with the crystals. He never regained consciousness and succumbed two hours after the physician's last visit.—*Lancet*.

### A CASE OF ASPHYXIA DUE TO ETHER ABSORBED FROM THE STOMACH.

Lorot reports in *La Tribune Médicale* of November 25, 1896, the following case:

A girl aged 9½ years was admitted to the Hospital Tenon in a state of asphyxia. The face was pale, the lips blue, and the whole appearance of the patient that of exsanguination. The extremities were cold, the fingertips were also pallid. Auscultation revealed no respiratory sound, no

cardiac bruit, and there was absence of the pulse. It was found on investigation that the patient had taken a large quantity of ether internally.

Artificial respiration was resorted to, and massage of the precordium was tried, with no result. There was an abundant muco-watery secretion in the mouth, and the tongue had been injured by the spasmodic contraction of the jaws. Rhythmical traction of the tongue was resorted to: cold applications were made to the forehead and the neck; flagellations, friction and stimulation of the intercostal nerves were also tried. After about twenty-five minutes a single respiratory movement took place. The respirations then became irregular, the heart's action somewhat violent and tumultuous, the pulse became stronger and extremely rapid; color returned to the skin and heat to the extremities. Whenever the treatment was interrupted, however, the respiration ceased, and the patient returned to a comatose condition. The conjunctiva was without a reflex, the eyes wide open, and the pupil dilated, but slight tonic movement of the left side occurred. Thus there was a unilateral grimace of the face, contraction of the arm and leg on the left side, with tremor; the right side was immovable. These tremors of the left arm ceased on inhalations of ammonia being given. Finally, the patient returned to consciousness, with a gradual passing away of the symptoms that we have named. Lorot believes that the methods of Laborde—namely, the application of rhythmical tractions of the tongue—saved the patient's life.

[ED.: Now that forced bellows inspiration is within the reach of all, we venture the opinion that before long every practitioner will have such apparatus in his armamentarium.]

OINTMENT FOR MUMPS.—

R Ichthyol.....	45 grains.
Iodide of lead.....	45 grains.
Chloride of ammonium.....	30 grains.
Lard.....	1 ounce.

This ointment is to be applied to the swollen parts three times a day. In some instances vaselin may be used in place of the lard, and sometimes belladonna may be added with advantage.—*Clinical Journal*.

Every pregnant woman should drink at least a quart of water, or its equivalent, daily and should eat freely of fruit. These will tend to keep the excreting organs acting freely, which is so important, during this period of a woman's life. The danger of eclampsia is in direct proportion to the want of activity of these functions and not as has been supposed, to the amount of albumen in the urine.—Dr. E. P. Davis, in *Coll. and Clin. Record*.

NOSE BLEACH.—The *Revue Chirurg.* states that spraying with a 5 per cent. solution of boric acid is an effectual nose bleach.



## NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF

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### TESTS FOR VISUAL MALINGERING AND HYSTERICAL BLINDNESS.\*

BY EDWARD JACKSON, A.M., M.D.

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Eye Hospital.

We have no test that distinguishes between impairment of vision due to hysteria and that simulated in malingering. It seems clear that hysteria is a true pathologic condition, as real as any pathologic condition that we are called upon to treat; but, because of its peculiar character and its independence of recognizable anatomic changes, it is impossible by any single test to certainly distinguish it from malingering.

There are some symptoms of hysteria, especially such as the alterations in the visual fields, which are of a character not likely to be simulated by the malingerer. But when it comes to symptoms that are likely to be feigned, our tests do not discriminate between the disease hysteria and voluntary feigning. Hence the tests that I am about to refer to generally reveal that the condition present is either hysterical or feigned, but other symptoms and the general aspect and surroundings of the case must be considered before determining which of these is the condition present. Tests of the field of vision may throw important light upon this question, as the hysterical field usually exhibits certain distinct characteristics, while feigned impairment of the visual fields is likely to follow closely one of the common forms of hemianopsia, or to promptly show the fraud by incongruous or impossible symptoms. Further than this I do not purpose to refer to tests for the field of vision, but simply to speak of the tests for acuteness of vision at the center of the field; vision as commonly taken with test letters.

In my experience, feigning most frequently takes the form of exaggeration of an actually existing visual defect; or of ascribing a defect previously existing to some particular cause or accident. It is quite possible that this latter may be done quite honestly, without the slightest intention to deceive, as defective vision in one eye may exist many years without being noticed. To avoid falling into error by accepting as correct a statement that underestimates the acuteness of vision actually present is by no means easy. A large proportion of patients will stop read-

\* Read before the Philadelphia County Medical Society, March 24th, 1897.

ing and say they cannot see any more; yet with a little coaxing they can be induced to read one or two additional lines of smaller test-letters. Simple disinclination to make the effort to observe closely prevents them from revealing their true visual acuteness; and when to this is added the desire to make as much of a disability as possible, the obstacle may become insurmountable. However, tact and patience will do much.

One plan for overcoming the reluctance to reveal the full acuteness of vision, is to use a card having several lines of letters too small to be read at the distance at which it is placed. Then giving the claimant the impression that he is expected to see all of these, he will feel gratified to find that he actually cannot do this, and gratitude for this supposed demonstration of a desired impairment of vision may incline him to cooperate heartily in the test, and read the lines that should really be just visible to the normal eye at the given distance. Even the malingerer feels that the truth is the safest thing, if he thinks it will answer his purpose.

A popular impression that is valuable in this connection is that glasses help all kinds of defective sight; and that the exhibition of normal acuteness of vision with a glass will not impair the claim for impairment of vision from disease or injury. By very careful objective determination of the correcting lenses (and for this purpose skiascopy is the only practical method), and the placing of them before the eyes, if vision is at all improved by them, it is very often possible to secure the patient's cooperation to such an extent as to demonstrate his full visual power. This plan has, in my hands, proved very effective in the examination of claimants for pensions. These claimants believe they are entitled to pensions, or at least as much entitled to such gratuities as others who receive them; they have all lost their power of accommodation, and (emmetropia being very rare) they all, without correcting lenses, have imperfect vision. To attempt to ascertain the correcting lenses by the subjective method is simply a waste of time, and a source of vexation and irritation. But if the correcting lens is accurately determined objectively and placed before the eye, the claimant will, almost invariably, co-operate and reveal the full acuteness of vision he possesses. Over and over again I have thus been able to demonstrate vision better than with the Snellen Normal Standard, in those claiming pensions on the ground of visual impairment.

When *blindness of one eye* is feigned, well-known tests readily reveal it. The best of these are the diplopia test and Harlan's test. The placing before the seeing eye of a prism too strong to be "overcome," by displacing the retinal image, causes binocular double vision, if the image is still seen in the normal position by the eye falsely claimed to be blind. This test may be rendered most effective by first holding a prism before the seeing eye in such a way that its edge shall come before the pupil, thus causing monocular diplopia by the formation in the one eye of two images, one from rays passing through the prism, and the other from rays passing beside it. Or, one may take the double prism, and, holding it with the line of junction in front of the pupil, get the same monocular diplopia. Having thus demonstrated to the claimant that he sees double with the seeing eye alone, we proceed to ask about the position of the

images when the prism is held in different directions, and then slip the prism completely in front of the pupil, so that in one eye rays all unite to form a single image, and diplopia remaining becomes positive evidences of binocular vision.

The other standard test, proposed by our fellow-member, Dr. George C. Harlan, consists in placing before the alleged blind eye a plane glass or its correcting lens (the latter often perceptibly improving its vision), and before the "seeing" eye a strong spherical lens, either convex or concave, which will entirely prevent clear vision at the distance of the test-letters. The claimant is told to keep both eyes open and read what he can through the glasses; and commonly he does so, supposing that he does it with his "seeing" eye which has been excluded. This test is particularly valuable because of its simplicity, which allows of its ready explanation before a jury, and because the claimant can be convinced that his fraud is fully detected, by asking him to read the same letters after the hand has covered what he claimed to be his blind eye. More than one suit for damages has thus been brought to an abrupt termination.

Another test for feigned monocular blindness, but of less practical value, may be arranged with cylindric lenses, obliquely placed before the eyes. Viewing through them, a plain rectangular surface appears distorted with either monocular or binocular vision, but the distortion is quite different in the one case from that which occurs in the other, and it is sufficiently characteristic to reveal with certainty whether monocular or binocular vision is implied. This test is more appropriate for cases in which pretended impairment of vision is comparatively slight.

*Feigned blindness of both eyes* has heretofore been regarded as more difficult to detect than feigned monocular blindness. Thus Dr. de Schweintz ("Diseases of the Eye," Second Edition, p. 488) states: "If a malingerer claims to be blind in both eyes, he can be detected only by placing a careful watch over him." Noyes ("Diseases of the Eye," Second Edition, p. 720) says: "It is difficult to unmask the pretence of total blindness. One must have opportunity to watch the person without his knowledge." Fuchs ("Diseases of the Eye," American Edition, p. 29) suggests observation of the pupillary reflex: "Although there are rare cases in which in the presence of actual blindness the pupillary reflex for light is still retained."<sup>1</sup> Fuchs also mentions the Schmidt-Rimpler method of telling the claimant to look at his own hand, which the blind man does without hesitation, while "a malingerer will perhaps purposely look in the wrong direction." Occasionally the malingerer can be startled into betrayal of the fraud. I once heard Dr. William Osler tell of a young woman who made the round of the London hospitals claiming complete blindness without apparent cause. Being led into the Moorfields Hospital, an assistant suddenly held a live frog before her eyes, and she ran out screaming. Not all ophthalmic hospitals have frog-tanks.

Priestly Smith has recently given us a most perfect method of recognizing feigned blindness, although he has done it in such a modest, matter-of-course way that it has not yet attracted the attention it de-

<sup>1</sup> Harlan has shown that the light reflex is often retained in blind eyes. *Trans. Amer. Ophthalmol. Society*, 1896.

serves. In the Ingleby Lectures on "The Mechanism of Binocular Vision, and the Causes of Strabismus."<sup>2</sup> To illustrate the subject of diplopia in connection with strabismus in children, he narrates the following case:

"A few months ago a prisoner awaiting trial for burglary with violence, awoke one morning blind in both eyes, so he said. The prison surgeon had no doubt that he was shamming, but wanted positive evidence one way or the other, and we examined him together. The man declared himself to be quite dark in both eyes, and acted the part of a blind man fairly well, overdoing it a little. The pupils were already under atropin, and could therefore give no evidence as to the light reflex. A lighted candle was placed before him in a dark room. He was not required to "look" at the candle, being nominally blind, but the candle was placed about where he appeared to be looking. A prism was then placed before one eye, its base inwards; instantly the eye moved outwards. The prism was removed, and the eye moved inwards. The man was told that his blindness would certainly disappear as quickly as it came, and he probably understood that the fraud would get him into more trouble if persevered in. His sight was soon restored. Now if this man could have carried his blindness into the dock, a merciful judge and jury would not improbably have felt that a higher tribunal had already visited him with a heavy punishment, or at least that he was incapacitated for further crime, and would have dealt with him very leniently. As a matter of fact, he was a particularly daring and dangerous criminal, and had during a previous imprisonment attempted the life of the prison surgeon. He received a long sentence."

This method is so perfectly simple and reasonable that it seems remarkable that it should not have been thought of before. Doubtless, it would have been sooner brought into use if the feigning of binocular blindness were not comparatively rare. I have tried it a number of times, not on any case of feigned binocular blindness, as none has been encountered, but upon eyes actually blind; and upon those who, understanding the test, attempted to defeat it by not turning the eye before which the prism was placed. It is a test that may be relied on to reveal feigning of binocular blindness in all cases, except those in which along with blindness there is pretended an inability to keep the eyes open, or constant movement of the eyes—nystagmus.

The best prism is generally one of 6° or 8°, held with its base towards the temple. Most persons involuntarily "overcome" such a prism by turning the eye correspondingly towards the nose, to escape diplopia, even in spite of an effort not to do so. It would be possible, of course, for a special case of heterophoria not to show the characteristic movement with this particular prism, but a trial of other prisms, or of the same prism with its base turned in the opposite direction, should reveal this characteristic movement. When the attempt is made to prevent such movement, to ignore the double images, the movement of deviation may be so gradual or so delayed as to escape detection, when the prism is placed before the eye; but on removal of the prism the "recovery" is prompt and characteristic. The same test may be applied for the detec-

<sup>2</sup> *British Medical Journal*, June 20th, 1896.

tion of feigned monocular blindness. The prism held before the seeing eye causes the characteristic movement, but before a blind eye it causes none. It is a test that reveals not merely some light-perception, but the presence of a comparatively definite and clear perception of objects.

When the malingerer feigns not only binocular blindness, but also nystagmus and an inability to open the eyes, he may be placed under the influence of a general anesthetic and tested and watched during the period of recovery, when he will most certainly fail to sustain the fraud.

By the methods thus briefly reviewed, I believe it to be possible in all cases to detect feigned blindness; but the distinction between malingering and hysterical blindness has to be based on other evidence, and cannot be determined simply from the results of these tests.

**NEW TREATMENT FOR SCIATICA.**—Dr. Negro, from Turin, *Med. Times*, has successfully treated sciatic neuralgia by digital pressure over the painful points. The method employed is as follows: The patient is placed in a horizontal position, with the lower limbs extended and in contact with each other, so as to completely relax the gluteal muscles. Determine by palpation the situation of the great sciatic notch, through which the sciatic nerve passes; apply the tip of the right thumb over the nerve, and above the nail of this place the left thumb. With the thumbs in this position, a very energetic pressure is exerted during fifteen or twenty seconds directly, slight lateral movements being executed in every direction, but without displacing the thumbs. After an interval of a few minutes the pressure is applied a second time in the same way, this operation being much less painful than the first. After the second compression, the patient is, as a rule, able to walk without difficulty, and the pain is relieved for a time varying between several hours and a day. The compression is repeated every other day, six sittings being usually sufficient for the complete cure of sciatic neuralgia, a result which Dr. Negro has obtained in the immense majority of cases (100 out of 113) in which he has had occasion to employ this method of treatment.

**FOR EPILEPSY.**—Prof. De Bechterew, of St. Petersburg, recommends the combination of potassium bromide with codeia and the infusion of Adonis vernalis. In English, his formula would be about as follows:—

R. Infus. fol. vernalis. . . . . ℥ss — ℥j ad. ℥vj  
 Adde:—Potas. bromid. . . . . ℥ij — ℥ij  
 Codeini. . . . . gr. ij — gr. iij M

Sig.—℥j—℥ij in aq. q. i. d.

For this combination, De Bechterew claims a special power of controlling the frequency of the convulsions. The vernalis is said to exert a constricting influence upon the cerebral vessels, and is a cardiac tonic very like digitalis but without its cumulative tendency.

**A GOOD RECORD.**—The five hundredth birth has recently taken place at the Burnside Lying-in Hospital, without a death from any cause whatever.

## PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

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### THE MICROBIAL ORIGIN OF BALDNESS.

SABOURAUD'S RESEARCHES INTO THE RELATIONS BETWEEN SEBORRHŒA,  
ALOPECIA AREATA, AND BALDNESS.

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#### I.

Dr. Sabouraud, a former pupil of the Pasteur Institute, the scientific value of whose work on ringworm is already well known, has just completed some very interesting researches at the St. Louis Hospital on seborrhœa, alopecia areata, the falling out of the hair, and baldness. Such diseases as seborrhœa, alopecia areata, ringworm, and baldness do not at first sight appear to have much in common, and the conjunction of their names in the title of a single work must appear very curious. The reader will, however, soon understand the relations between the facts regarding them.

After four years devoted to the mycological and therapeutical study of tinea tonsurans, and after trying in succession all the remedies devised for its cure, Sabouraud came to the conclusion that no antiseptic treatment is absolutely efficacious in the case of a tinea fungus which has invaded the hair as far as the root. This is due to the inaccessibility of the root to antiseptics owing to the narrowness and depth of the hair follicle, which prevent the diffusion of all the therapeutic agents which have been employed. He has furthermore become convinced that if, as appear in favus, one could make a complete series of epilations without breaking the hairs, tinea tonsourans would be rapidly cured. But the diseased hairs break off close to the surface, and so it is necessary to take care to enucleate them by working somehow from below, by the root or even the follicle, killing the latter "temporarily." Following out this line of argument and applying it to alopecia areata, Sabouraud came to the conclusion that if the loss of hair in this disease is due to microbial intoxication, the toxins of the micro-organisms would be capable of inducing alpecia. It would then be possible to use them to produce a temporarily bald area at any desired spot, and so to cause a spontaneous

falling out of the tinea-infected hairs, which are too fragile to be removed by epilation. These ingenious but logical conclusions led their author into a new series of researches occupying three years. All that follows is simple to explain, and can be summed up in a few words, but it will be easy to read between the lines the amount of patient labor which Sabouraud has had to carry out.

## II.

These ideas seemed at first very pretentious, requiring as they did for their verification nothing less than the discovery of the microbe of alopecia areata. The first research consisted in the most careful clinical study of the disease, having for its objects the determination of (1) the possibility of a microbic origin of alopecia areata, (2) the exact spot at which the micro-organism, if it existed, was to be looked for.

This preliminary study showed that alopecia areata started from a central point, and that the baldness spread from this point by creeping in every direction along its circumference, in the manner of a spot of oil in a fabric. It showed furthermore that the most pathologically active zone of the patch is situated at its confines, and that it is in this circumferential zone that the infected and broken hairs are found in the form of clubs. Careful study of patches of lupus leads to the conclusion that their centres are smooth, healed, and appear to present no visible alteration of the mouths of the hair follicles, while the active peripheral zones show considerable dilatation of the pilosebaceous orifices. All this local evolution goes to support the arguments founded upon numerous examples of epidemics in favor of the microbial origin of alopecia areata. But more than this, the local development indicates that the micro-organism resides in the active peripheral zone, and more exactly in the dilated orifices of the hair follicles. These views are borne out by histological facts. Fortune favored M. Sabouraud by providing him with invaluable histological material from the body of a hospital patient who was suffering at the same time from a skin affection and alopecia areata. M. Sabouraud was thus able to see clearly in his histological specimens that a constant small bacillus was to be found infesting the upper part of the hair sac. He was further able to discover that the orifices of the follicles were filled with a fatty substance which could be squeezed out on pressure, and which he called the "seborrhœic cocoon." Now in this seborrhœic cocoon can be found, surrounded by a crowd of microbes, the same organism which has been demonstrated in the histological sections. It remained to isolate this bacillus, to cultivate it, and to demonstrate that it is the actual cause of alopecia areata.

The essential part of the research had, in fact, still to be undertaken, and in carrying it out the author's patience was put to a severe test. The bacillus had to be isolated from the crowd of microbes found in cultures of the seborrhœic cocoon taken *en masse*. There is present under such circumstances practically the whole dermatological flora studied by Unna. It was necessary to discover a medium which should have the power of destroying all micro-organisms except the one in question; which should, in other words, allow the alopecia bacillus to grow while proving unadapted to the life of all other microbes of the seborrhœic

exudate. After a long series of attempts M. Sabouraud has achieved the desired result. It consists of a very acid culture medium, of which the ingredients are the following:

Peptone.....	20 grammes
Glycerine.....	20 "
Acetic acid.....	5 drops
Water.....	1,000 grammes
Gelose.....	13 "

With this medium one obtains in many of the tubes, in the midst of the other colonies, one or two pure cultures from the beginning, which are visible on the third to the fourth day, the temperature being 35° C. They show as pointed mounds, the color of which is dirty white on media containing glycerine, a very characteristic brick-red on glycerine media. There still, however, remains a microbe which continues more persistently than any of the others; it is a white coccus, quite characteristic in appearance, and suspected by Sabouraud of playing some part in the genesis of alopecia. This organism must be got rid of, and the author affects this by a novel and ingenious method—the use of immunised gelose. By using in the preparation of the gelose a liquid in which the white coccus has been cultivated a medium is obtained which gives from the first abundant and definitely isolated cultures of the bacillus already mentioned. The same result can be obtained in another way by a slow sterilization: a temperature of 65° C. for ten minutes kills the white coccus but spares the bacillus. The latter has thus been isolated and cultivated, but it remains to be proved whether or no it is the cause of alopecia areata.

A series of experiments were now made with a view to reproducing alopecia areata in animals. Certain results were obtained, some rabbits being caused experimentally to lose their hair in bald patches, but some desiderata still prevent M. Sabouraud from pronouncing definitely and formally declaring the bacillus to be the microbe of the disease. The question is, however, not far from solution.

### III.

In all this there has been so far no question of either seborrhœa or baldness; we shall now see, however, that these subjects are intimately allied to those we have already discussed. From the time when Sabouraud first discovered and investigated the bacillus of the "seborrhœic cocoon" in alopecia areata he was struck by its resemblance to the microbe studied by Unna and described by Hodara as the bacillus of acne. This involved the necessity of examining this acne bacillus anew, and Sabouraud soon saw (1) that Hodara's bacillus is not that of acne, since it is found not only in the comedones, but in every form of oily seborrhœa, in the course of which the comedones of acne seem to be no more than an epiphenomenon resulting from local symbiosis; and (2) that his bacillus of the seborrhœic cocoon and Hodara's so-called acne-bacillus are certainly identical. This latter conclusion naturally made Sabouraud hesitate in his idea that his microbe was that of alopecia areata, for up till then there



had not appeared to be the slightest connection between this disease and seborrhœa. Nothing discouraged, he returned to the study of his microbe and endeavored to ascertain all the localities in which it was possible to detect it. A series of researches was thus undertaken which resulted eventually in the demonstration of the microbial nature of baldness. A preliminary study of seborrhœa in the hairy scalp revealed (1) that the bacillus of the brick-red cultures from alopecia areata is also present in the seborrhœic plugs of the mouths of the hair and sebaceous follicles in seborrhœa, that it is there present in considerable quantity, and that it certainly is the cause of seborrhœa, (2) that consequently seborrhœa and alopecia areata have a common origin from the same micro-organism. Finally, having studied the obvious relations existing between seborrhœa and the habitual falling out of hair, Sabouraud came to the conclusion that the disseminated loss of hair in seborrhœa was the prelude of baldness. The histology of bald scalps shows that the mechanism of the process leading to baldness is as follows: Whenever the specific bacillus of seborrhœa invades a follicle, it produces around it, and especially at its base, around the hair papilla, an afflux of wandering cells. The papilla gradually atrophies, producing as it does so a hair which is progressively more and more frail and devoid of pigment. Finally it dies, and the dead hair is expelled. In this seborrhœic infection of the hairy scalp the colonies of bacilli are enormously abundant; the sebum, which is effused on the surface of the skin in the form of an apparently homogenous crust, is composed of an infinite number of seborrhœic plugs turned out of the follicles, and each of these plugs contains the bacillus in millions.

In hairy scalps which have been once invaded, the microbial infection remains epidemic and settled so that a hair once shed is never renewed. Furthermore, the permanent effusion of this germ-bearing sebum infects one by one the follicles which have remained sterile. In this way ordinary baldness is little by little established; the progressive sclerosis of all the elements of the hair follicle brings with it considerable changes of form. The whole part of the follicle invaded by the bacterial colony becomes hollow and broken up by narrow diaphragms which render the seat of infection inaccessible to external antiseptics. But the incredible abundance and absolute purity of the infection persist even when the baldness is finally and definitely established. Even at this terminal stage in its evolution, ordinary baldness remains the most abundantly and most purely microbial malady known in the skin.

Such are the conclusions to which clinical and histological results lead the author; but a further difficulty has to be cleared up. It is that at the moment of infection the bacterial colony does not invade the hair papilla, but remains in the upper third of the follicle. By what mechanism can the colony exert its influence upon the papilla? One can only admit an action at a distance, and this remains to be proved. Sabouraud, thinking then that this distant action was effected by the toxins of the micro-organisms, devised and carried out the following experiment, which is conclusive, and practically seals this chapter on the microbial nature of baldness. He made a cultivation on a liquid medium, and having filtered it through porcelain, inoculated the filtrate deeply under the skin and

into the muscular tissues of a rabbit. The rabbit at once commenced to shed its fur, and within forty days from the date of inoculation general alopecia was established. This experiment is of the greatest value as showing that the toxin of the bacillus of seborrhœic plugs is so specific and individual that when inoculated into the heart of the system it retains its elective and exclusive action on the papilla of the cutaneous hairs.

This is the exact point at which Sabouraud leaves us for the moment; but he promises us before long another memoir containing the results of experiments not yet completed. If we retrace the ground covered by this analysis we find (1) that the microbial origin of baldness is certain; (2) that the micro-organism of baldness is the same as that of seborrhœa; (3) that it is identical with that of the seborrhœic plugs of the orifices of the hair follicles in alopecia areata.

To render the whole work complete, to prove that these results are definitely allied to each other, it would suffice if the following could be added to the third conclusion: The bacillus which is the cause of both seborrhœa and loss of hair acts according to its greater or less virulence under varying conditions in a manner either violent and fulminating, producing what has hitherto been known as alopecia areata, or moderately gentle, giving rise to that progressive loss of hair which in ten or twenty years ends in baldness. This last deduction Sabouraud does not give, in spite of certain favorable experiments. For prudence sake he does not wish to state it yet, because he has till now perhaps been unable to produce in an animal the true patch of alopecia areata, that is to say, the typical disease with the club-shaped hairs. There is probably, however, but a shade of difference to overcome, and we are convinced that after what has gone before Sabouraud's last scruples will soon prove to be baseless. Thus from this work, besides all the other discoveries which it comprises, we hope to see arise at the same time the key to the much-sought solution of the problem of alopecia areata in the definitely and finally established discovery of the microbe of the disease.

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THE FORMS OF DIABETES.—Dr. George Harley, *The Lancet*, gives the following classification of diabetes:

1. Hepatic diabetes, including the gouty variety.
2. Cerebral diabetes, including all cases of saccharine urine arising from nerve derangements.
3. Pancreatic diabetes, the most deadly form of the disease.
4. Hereditary diabetes, a form by no means uncommon, and one, too, where both brothers and sisters may labor under the disease without either their maternal or paternal parent having been affected by diabetes, though more distant members of the family may have suffered from it.
5. Food diabetes, including all forms of saccharine urine arising from the ingestion of unwholesome substances.

In the matter of treatment, besides diet and opium or codeine, Dr. Harley recommends croton chloral, strychnine, phosphoric acid for thirst, and an absolute prohibition of alcohol.

## NOSE AND THROAT.

IN CHARGE OF

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### TWO NASAL CASES.

#### ONE OF PRIMARY CHANCRE, ONE OF DERMOID CYST.

BY ALBERT KOHN, M.D., ASSISTANT TO DEPARTMENT OF LARYNGOLOGY AT THE MOUNT SINAI DISPENSARY, NEW YORK.

In the *New York Medical Journal* of October 10, 1896, there appeared the histories of two nasal cases, one of initial lesion, another of cyst. To these I wish to add the report of the following cases, both of which came under my care at the throat department of the Mount Sinai Dispensary:

CASE I. *Intranasal Chancre*.—Referred to the dispensary by Dr. H. S. Stark. A man, married, thirty-five years of age, waiter by occupation. Complains of inability to breathe through the right nostril for the past few weeks. Examination shows the right fosa completely filled with a compact mass of granulations, starting about one inch from the orifice. Attempts to probe were resisted on account of the great pain. Under cocaine little more could be gained, for as soon as the probe had passed beyond the anterior border of the mass the pain was too intense to be borne by the patient. The granulations were found, however, to spring from the septum. A Volkmann spoon was introduced and the mass rapidly curetted away, the patient suffering severely. There was also considerable hæmorrhage. So intense had been the pain that the patient refused further examination.

He returned on the second day following. Much to my surprise, the granulating mass was in exactly the same state as it was before removal. In two days it had completely reproduced itself. A probe was passed through the inferior fosa, the patient objecting very much, and insisting that he could not stand the pain. A hard mass was detected behind the granulations, beyond which the probe could not be passed, and which was extremely sensitive, notwithstanding the free use of cocaine. The granulations were again curetted away for the purpose of investigating the hard body posteriorly. The patient would not, however, submit to this and declined further interference.

The diagnosis up to this time had been that of tertiary specific growth, in spite of the absence of a history pointing to syphilis, and treatment (with iodide of potassium) had been commenced. But on the patient's return two days later, not only was the mass reproduced, but a typical secondary maculo-papular syphilide covered the entire body, with the other symptoms of primary infection, except that the cervical glands on the side of the nasal trouble were more enlarged than those of the remainder of the body. A thorough examination of the penis and body was now made, but it failed to reveal the least sign of initial trouble. No old scars were found on the penis. Dr. Lustgarten was asked to see the case, and was positive in his opinion that the nose was the seat of the primary chancre. The chancre proper was undoubtedly the hard body felt with the probe, as the exuberant mass in front had nothing about it characteristic of a primary sore.

The patient was put upon the use of inunctions with the usual rapid result. Six months after the appearance of his lesion, at the region of the middle turbinated there was found a complete obstruction of the right nostril, with the exception of a small passage through the inferior fossa. As to the mode of infection, nothing could be learned.

This case was presented before the Metropolitan Medical Society a year ago by Dr. E. L. Meierhof.

CASE II. *Intranasal Dermoid Cysts*.—A woman, aged sixty-five years, comes for deafness which she has had for a great many years, and has been told that the drum membranes were gone. Examination of the ears showed both membranes present, but greatly retracted. Examination of the nose revealed that both sides were almost completely obstructed by myxomatous-looking growths springing from the middle turbinated bodies. Under cocaine, these bodies were removed intact with the cold snare. The conditions on both sides were almost identical.

Upon examining the specimens they were found to be multilocular cysts. On puncturing one of the little sacs, a thick, cheesy material could be easily pressed out, and repeating this on several sacs, they were found to be distinctly partitioned from one another.

The specimens were handed to Dr. Mandlebaum, the pathologist of the hospital, who pronounced them dermoid cysts. The patient was kept under observation for at least six months; there was no sign of recurrence.

## REPORT OF INTERESTING NOSE AND THROAT CASES.

BY J. WALTER PARK, M.D.,

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There are so many interesting nose and throat cases in one's private as well as hospital practice that, if reported to the profession in general, some one is always sure to be benefited thereby. In looking over my case-books I have selected a few which to me were very interesting indeed, and therefore take the liberty of reporting them to the readers of *The Laryngoscope*.

## LARYNGEAL REFLEX COUGH.

Miss M——, aged 40, came to see me January, 1894, complaining of a chronic cough which she says she had been having for over three years. She had been under the care of several eminent physicians, each one of whom seemed to attribute the cause to some chronic laryngitis, as well as bronchitis, but all treatment seemed of no avail. After examining her very carefully and very thoroughly I could find no apparent cause. Her larynx, even down below the vocal cords, seemed entirely normal, and did not even present a hyperæmic condition. She had, however, some hypertrophy of both tonsils, which I finally persuaded her to have cauterized. This was done several times, until they were very materially reduced in size, with the most happy result of the cough entirely disappearing: and about one year afterwards when I last saw her, she was still entirely well. This seems to me to be entirely reflex in character, due, no doubt, to a neurosis involving probably the internal branch of the superior laryngeal nerve. Laryngeal coughs of a reflex character are frequently observed, but when due to hypertrophy of the tonsils they are, comparatively speaking, rare.

## ANGIOMA OF INFERIOR TURBINATED BODY.

Mr. B—— came to my office October, 1896, complaining of frequent attacks of epistaxis, stenosis of right nostril, and frequent attacks of headache. An examination revealed what I thought at first to be a myxomatous growth of the inferior turbinated body; but after examining it carefully with a probe I discovered its pedicle, and noticed that it bled very freely, which, of course, put me on my guard. It was attached about midway back, and of a dark purplish color, and very vascular. I removed it very slowly with the cold snare. The first day I had very little hemorrhage to contend with, but the second it became quite profuse and very difficult to control. It was fully a week before all hemorrhage had ceased. When it finally had healed up I could barely discover a cicatrix. A careful examination proved it to be a true angioma, composed of a complete network of dilated blood-vessels, held together by connective tissue, and each seeming to run its own distinctive course. In looking up the literature upon this subject I find that true angiomas are rare, most cases so reported being of a myxomatous type. The treatment, after its removal and final control of the hemorrhage, was entirely antiseptic in its character, by spraying out the nose with a boric acid and chloride of sodium solution. There has been no return of the growth up to the present time.—*Laryngoscope*.

## ABSCESS OF THE SEPTUM.

Dr. Kicer's paper on Hematoma Septi Nasi, in the last *Laryngoscope* suggests the report of the following:

H. T., 23 years old. I removed with saw, under careful antiseptis, a growth from the cartilaginous septum of left naris, Dec. 30th.

During the following night a sharp bleeding came on, which was finally stopped by a plug of newspaper, inserted by the patient. Two days later he had sore throat, bilateral nasal stenosis, and the usual symptoms of the then epidemic follicular tonsillitis. Under treatment he was, in 48 hours, relieved of all discomfort, save the bilateral nasal stenosis. This persisted, and on January 13 I aspirated 1 oz. of pus, with immediate relief of the stenosis, which did not recur. Patient discharged well on February 1.

EDWARD J. BROWN, M.D.,

Minneapolis, Minn.

—*Laryngoscope*.

ETHMOIDITIS SUPPURATIVA, ACUTA AND CHRONICA; CAUSE, DIAGNOSIS, AND TREATMENT.—Farber (*Ann. of Ophth. and Otol.*, January, 1896) regards this disease as of common occurrence, and the result of acute rhinitis which has extended through the anterior ethmoidal cells to the frontal sinuses. There is a history in all cases of one or several attacks of inflammation of the frontal sinuses, severe frontal headache, chill, fever, etc. Many cases of this character go on to complete resolution and cure; many more end in the chronic form. The treatment for the acute cases, which should be rigidly carried out, should be confinement to the house for eight or ten days, purgation, hot foot-baths, opium, belladonna, aconite, and quinine.

The symptoms of chronic anterior ethmoiditis are frequent headaches and the presence of a thick, almost purulent discharge, and a large, tough scab coming from one side of the nose, with a more or less catarrhal condition of the nasopharynx. The discharge and the peculiar scab are diagnostic. The latter is found on the middle turbinate near its anterior extremity, extending over the sæptum, and completely blocking the superior meatus. The secretion is soft, slightly tenacious, and greenish-white in color. On its under side it is hard and dry, brownish-yellow, deeply concave, and holds its shape when discharged. The pus, dripping from above, gradually fills the superior meatus and run back to the nasopharynx. There is practically no odor perceptible to others, but the patient himself is conscious of a slight stench.

The treatment consists first in remedying the existing hypertrophies, keeping the nares clean, and opening up the anterior ethmoidal cells through the infundibulum. The anterior end of the middle turbinate should be cut off with a small bone forceps, so as to prevent the accumulation of secretion and give drainage. The infundibulum must then be opened by the dentist's drill, and its direction, starting from the level of the amputated middle turbinate, should be backward, upward, and outward toward the anterior ethmoidal foramen. The structure is easily penetrated, and the pain is not great, and may be alleviated by cocaine. Two or three openings will be sufficient. The size of the "burr" should be about an eighth of an inch, and it should penetrate from a quarter to half an inch, or until the drill has penetrated a cell. Hæmorrhage is not excessive, but is more or less oozing and constant, and therefore it is better to pack the nose. The openings should then be flushed with sublimate solution (1 to 4,000), or with hydrogen peroxide. The edges of the openings should be cauterized with the galvanocautery.—*Bull. in N. Y. Medical Journal*.

## PAEDIATRICS.

IN CHARGE OF

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Under the head of environment comes a happy home life with a minimum of worry. Nervousness of any kind causes a rise of the proteids, and if the woman is constitutionally nervous, this may cause such a constant rise as to make the milk unfit for a food. A woman in our wards could not live happily with her neighbors, and frequently indulged in heated argument, with marked show of temper. After these quarrels her child was always upset for a day or two. A simple, nutritious diet, with a proper allowance of meat, is necessary, as it keeps up the general tone of the milk. The milk of an underfed woman shows a reduction in total solids. A lack of meats reduces the fats and total solids, and, on the other hand, an excessive meat diet raises the fats too high.

A judicious amount of exercise in the open air is necessary, for it is a general tonic to the milk. When the milk is scanty, a little exercise often restores the proper amount; and the baby who has been crying from hunger, and lagging behind in weight, improves in a wonderful manner. A lack of exercise allows the proteids to increase. On the other hand, excessive exercise worries and tires out the mother, and acting like other untoward nervous influences, results in the production of too large an amount of proteids, causing the same result as if exercise had been neglected.

Each one of these conditions, if nicely regulated, is a source of good; on the other hand, their abuse or neglect is sure to result only in injury. Moreover, the regulation of these conditions varies according to the idiosyncrasy of different women, and in each case it must be determined just how much of each is required. In some cases it is only by repeated examinations of the milk, and re-arrangement of the manner of life, that a satisfactory condition is reached.

### EXCESSIVE FATS.

In judging from the chemical analysis alone, without regard to the effect of the milk upon the child, we should often wrongly judge the fats to be in excess, as we have already stated that this constituent is subject to great variation, and that an unduly large amount may occur at any period of lactation; there is no particular time when this condition is to

be expected. A large amount of fat may tax the digestive system too severely, and is often followed by spitting up after nursing, vomiting, or by intestinal symptoms. Such disturbances, if allowed to persist, are naturally followed by lack of nutrition and a loss of weight, which must receive treatment. This consists mainly in cutting down the amount of albumen in the mother's diet, until the per cent. of fat in the milk agrees with the child; but should this be carried too far, it results in a general impoverishment of the milk in all its solids, with a reduction of the total solids, so that although we have corrected the excess of fats, the nourishing properties of the milk are impaired, and the nursing infant loses weight from partial starvation.

A deficiency of fat never causes any intestinal symptoms that we have been able to determine. It is generally considered that a deficiency of fat causes constipation; but this we have not proved. Constipation has more often seemed to be due to an insufficiency of milk, or an insufficiency of total solids, so that not enough is left to pass through the alimentary canal as waste material.

The analysis of the milk explained the source of trouble. There was a decided change from the milk we had analyzed on the twenty-ninth day. Then the fats were but 1.85 per cent., but now they had run up to 8.44 per cent. This quantity of fat is so very unusual and excessive that there was no hesitation in blaming it for the child's condition, and steps were immediately taken to correct it.

Rotch, of Boston, has said that the amount of fat in the milk can be controlled by the amount of nitrogenous material in the mother's diet. The treatment in the following cases was not indicated, but was prescribed to prove or disprove his statement.

#### EXCESSIVE PROTEIDS.

The proteids are apt to be excessive under certain conditions. These conditions are a lack of exercise, too rich a diet, and nervousness. Excessive proteids occur frequently during the first days of lactation. When excessive, they show themselves by interfering with the infant's digestion, the symptoms of which are vomiting and frequent movements of the bowels, which may contain curds of undigested proteid. The movements are sometimes green and sometimes yellow, the green movements being more frequent during the first days of nursing. The baby suffers from colic, and on account of the disturbance of the digestive organs there may be a disturbance of nutrition sufficient to cause a loss of weight. We shall consider the treatment of this condition during the first days of lactation later, but for the present will speak of the treatment in general.

The treatment of this condition is both prophylactic and curative. Its most constant cause is lack of exercise. A woman of sedentary habits, especially if her diet is too rich, should be advised to take a suitable amount of exercise, regulation of this function being the most reliable factor in reducing the proteids. By drinking a larger amount of water, the mother can dilute her milk so that the total solids, and consequently the proteids, will be represented by a smaller per cent., or the milk may be pumped and diluted with water directly, when it can be fed from the bottle.



For ten days the infant had frequent yellow and undigested stools. There had been no vomiting, but the child cried a great deal with colic. The foster-child was in the same condition. This shows, both in the case of the mother's child and the foster-child, the usual results of a milk with high proteids.

The next case demonstrates some principles in the treatment of excessive proteids, which Rotch has shown consists in regulation of the exercise.

The infant had been having five or six green movements with curds every day since birth. The mother had taken no exercise, was losing sleep, and was very nervous. This case showed high proteids, as we shall find later is the case in prematurity. The mother was in such poor condition it was feared that exercise would be an injury rather than a help. Still, fresh air was necessary, and driving each day was recommended. She was advised to eat meat but once a day, instead of three times, and to drink large quantities of water.

#### PREMATURITY.

In every case of prematurity in which we have had an opportunity to analyze the milk we have found distinguishing characteristics. The variations of the colostrum period are present, but exaggerated in the proteids. This increase in the proteids extends over a longer interval than in ordinary colostrum milk, and is not easily dispelled. It consequently taxes the delicate digestive organs of the untimely-born infant for a longer time than is usual. The sugar, the complement of the proteids, is low at this time. The cases reported were all one month premature.

#### TREATMENT OF THE COLOSTRUM PERIOD.

The treatment of excessive proteids during the colostrum period is difficult. Naturally during child-bed the mother's diet must be limited, and exercise upon which we ordinarily rely for reducing the proteids is impossible. The milk can be pumped, diluted with water, and fed from the bottle; or it can be diluted by the administration of large quantities of water to the mother. In some of the less severe cases less frequent nursing will prove of benefit, taking water from the bottle in the intervals. This condition is usually temporary, and will adjust itself in a few days.

#### ABNORMALITIES TOWARD THE END OF LACTATION.

The most marked changes in the milk in the later months of lactation are a reduction of the proteids and total solids. These seem of little importance, but are not to be lightly considered. The diminution in the proteids is the natural forerunner of the cessation of lactation, and means that the milk is deteriorating; on the other hand, if the proteids are high lactation will probably continue for some time.

The fats, certainly, are no criterion of the condition of the milk; neither is the sugar, but a proper amount of proteids in the milk indi-

cates its tone is good. The physiologists tell us that fats and carbohydrate can be made in the human body, but that proteids cannot be, so that they have to be taken in as such. A scanty amount of proteids then means that the nursing infant will have to get along as best it can under unfavorable conditions. We have observed many such cases, and been led to think that at this time the proteids are the backbone of the milk, and really represent its nourishing properties better than any other guide which we at present possess. This condition, forced upon the child, causes a general weakness of the constitution, which results in anæmia, fretfulness, a falling below the normal gain in weight, delayed dentition, and proneness to gastro-enteritis. The latter symptom may not appear till some time after we have begun the tardy process of weaning. As a rule, the first sign of approaching danger is a tendency to gain weight more slowly than normal. A healthy infant should gain from four to eight ounces weekly for the first six months, and from two to four ounces weekly during the second six months. If the child's weight falls below this standard for any length of time, or is stationary, or there is a positive loss, we should try to find the cause at once. It may be that the infant is getting insufficient milk. This can be determined by weighing before and after each nursing. The milk should be analyzed, and if the total solids and proteids are found low, their absence must be supplied.

#### TREATMENT OF NORMAL CASES IN THE LATER MONTHS OF LACTATION.

The hygiene of the mother's life must be carefully regulated. On account of certain deficiencies which we have seen occur normally in human milk of this period, certain additions must be made to the diet. By the seventh or eighth month the infant's pancreas is functioning so well that we can rely upon it to convert starch, and some carbohydrate, such as barley gruel, should be given in addition to the milk. On account of the lack of proteids, we must give a substitute of some form of animal food. In this way a deficiency in the mother's milk can be partially supplied.

Weaning should begin at the ninth month, and in the early stages of this process we should use a modified milk containing low proteids, taking care not to force upon the infant's digestion an amount of cow's proteids equal to or greater than that which the mother has been offering, for it is known that the proteids of cow's milk form a tough curd, which are indigestible in comparison with human proteids. The number of bottle feedings and the amount of proteids should be gradually increased. Under this treatment, even if the child continues to lose weight for a time, we can feel that the stomach is gradually becoming accustomed, and eventually will be able to digest, a stronger diet. At any rate, we shall have the satisfaction of keeping the child from gastro-enteritis, to which its constitution would be particularly susceptible at this time.

#### MANAGEMENT OF ABNORMAL CASES IN THE LATER MONTHS OF LACTATION.

If the mother is anæmic, a tonic containing iron is indicated. Holt has shown that malt increases the total solids in human milk, and we

have found its use very beneficial at this time. The form we have used has been Maltine. The mother's diet should be increased with the addition of cow's milk. A good form in which to prescribe the latter is a milk punch. Exercise in the fresh air is important. Antiseptic massage of the breast for its local stimulating effect was used on A. M. Thomas' service at the hospital. In the later months of lactation we cannot hope to bring the original tone back to the milk, but we can hope to keep it from degenerating further till the child has been weaned.

## SUMMARY.

- (1) Excessive fats or proteids may cause gastro-intestinal symptoms in the nursing infant.
- (2) Excessive fats may be reduced by diminishing the nitrogenous elements in the mother's diet.
- (3) Excessive proteids may be reduced by the proper amount of exercise.
- (4) Excessive proteids are especially apt to cause gastro-intestinal symptoms during the colostrum period.
- (5) The proteids, being higher during the colostrum period of premature confinement, present dangers to the untimely-born infant.
- (6) Deterioration in human milk is marked by a reduction in the proteids and total solids, or in the proteids alone.
- (7) This deterioration takes place normally during the later months of lactation, and, unless proper additions are made to the infant's diet, is accompanied by a loss of weight, or a gain below the normal standard.
- (8) When this deterioration occurs earlier, it may be the forerunner of the cessation of lactation, or well-directed treatment may improve the condition of the milk.—*Archives of Pediatrics.*

## CHRONIC MALNUTRITION OF INFANTS.

The combination of yolk of egg and olive or cottonseed oil made into an emulsion is found very useful in cases of rickets or chronic malnutrition in infants. The emulsion can be made as follows: olive oil,  $\frac{3}{4}$  ij; glycerine,  $\frac{3}{4}$  j, yolk of one egg. Make an emulsion, and add one-half minim of creosote to each drachm. Occasionally it is better to use a smaller amount of creosote when this agent is not well borne by the stomach. A full teaspoonful of the emulsion is given three times a day after feeding. The preparation seems to be readily tolerated, even when the stomach is irritable.—*Practitioner.*

ANTIPYRIN FOR CONJUNCTIVITIS.—Dr. A. E. Anderson (*Ther. Gaz.*) desires to call attention to the value of this drug as a remedy for conjunctivitis, acute, chronic and granular. He uses a ten per cent. solution, applying this to the tarsal conjunctiva with a pledget of cotton, taking special care to push the cotton well up into the retrotarsal fold. There follow a momentary sensation of pain and a gritty sensation, causing the patient to blink, which soon disappears. For use at home, thrice daily, a four per cent. solution may be ordered.

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The *Berliner Klinische Wochenschrift*, **22nd March, 1897**, publishes a **Report** upon some experiments that have been made under the direction of **PROFESSOR GERHARDT**, in his clinic at the **Charite Hospital** at **Berlin**, demonstrating the value of **A PENTA WATER** in the treatment of obesity and its influence on change of tissue.

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The Largest Circulation of any Medical Journal in the Dominion.

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## Editorial.

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### THE CAPACITY OF THE ORGANISM TO RESIST INFECTION.

In the numerous discussions as to the application of antiseptic measures to surgical and obstetrical work, how rarely is the question of the personal equation of the patient given its rightful value and consideration. We see this element of vital resistance, be it greater or less, exemplified in many instances, not only in the hands of the indifferent and careless, where it has ample opportunity to show its power, but also in the hands of the strictest disciples of the antiseptic and aseptic doctrines, where there are from time to time examples to prove its weakness. It seems impossible to believe that infection or non-infection can be entirely controlled by external agents.

Under the most rigid rules of antiseptis or asepsis, infection still claims its occasional victims, and in the absence of them, it is true, the victims are much more frequent; but surely anyone who has had the opportunity of observing the latter, has been struck with the remarkable frequency of escape in cases where there has been a very evident source of infection, and, on the other hand, when all has been done to obviate infection, we do see an occasional fatal septic result, or if not fatal in the whole, fatal in part.

Women have been delivered of their children while suffering from some highly infectious disease, and without evil result. They have gone through the same ordeal utterly unprepared, from an antiseptic standpoint, and with the most septic surroundings, and many a precipitate labor has left no time for necessary preparation, and yet a very large proportion escape infection.

Such an instance occurred to the writer some years ago when called in haste to attend a woman in confinement suffering from erysipelas, involving the right arm and shoulder. It was a precipitate case and precautions were necessarily scant. The subsequent history was uneventful.



Some may explain this by immunity conferred by the erysipelas attack.

Under the most careful asepsis and antisepsis a small fibroma was recently removed from the buttock of a man, a fine specimen of a laborer, apparently in the best of health. Seventy-two hours after the operation the patient died of a general streptococcus infection. Such cases, though rare, unfortunately do occur, and, considering the care taken, the explanation is not very clear. One of the best authorities on antiseptic surgery on this continent looks upon every wound as infected despite every precaution, and, as one suppurates and another does not, we must look for an explanation either in the wounded tissues themselves or in the body generally. Possibly the phagocytes are at fault. Thus there is evidently some hidden element which governs the progress of these cases and over which external measures have no control, and it is this that is so often lost sight of in considering the questions of suppuration and infection.

These ideas do not in any way militate against asepsis—far from it—they only tend to show how persistently the most approved methods should be enforced in all cases. Some may not use them, but experience has shown that a vast number do, and it is also known that some, even with all the assistance in our power to give, are yet unable to resist the infection, however modified; but unfortunately we cannot make this distinction until we test it.

To go to extremes in asepsis can be but erring on the right side, and giving every patient his best chance, but, in the minds of some, it gives a sense of false security, which in itself is not so bad, but by reasons of which assertions are sometimes made regarding infection and its prevention, which by their sweeping character, are misleading and harmful, and in the minds of those incapable of judging rightly, and give rise to most erroneous ideas as to liability, and censure falls upon those, often least deserving it, and whose unfortunate results in a certain number of cases arise from no fault of their own, but depend upon some physical or vital defect in the patient. This defect may be local or general, and though there be a great difference between a local suppuration and a general septicæmia from a prognostic point of view, the principle of infection is the same. There is little doubt that a local suppuration prevents a general infection in many cases, that is, the tissues at the point of inoculation are able to successfully overcome the invading organism by walling them off, so to speak. It is also well known that in many autopsy wounds, the cases going on to a general infection show but little reaction at the point of inoculation, and vice versa. Dr. Welch, in his monograph on wound infection, says that though predisposition is a doctrine of which a good deal is made, it is nevertheless a very real thing and one not to be passed over without notice. "Every surgeon knows that wounds in some persons do much better than in others, and that some kinds of wounds are much more prone to suppurate than others." (Welch).

It is well-known that such conditions as diabetes, alcoholism, obesity, Bright's disease and some of the fevers predispose to infection. Anæmia and hydræmia also pave the way in a similar manner (Gartner). Flexner in his experimental study of terminal infections showed that the

blood serum of patients suffering from chronic cardiac and renal disease had a reduced destructive influence upon the staphylococcus pyogenes aureus.

While there are these causes to account for infection taking root and producing its local or general destruction, a thorough examination for such should be made before operation and the patient placed in the best possible condition prior to operation, where the delay for such is allowable. There are, however, instances in which no such signs are to be found and in which the wounds do badly. The possibility of a degree of infection cannot be lost sight of, which is an extra plea for rigid asepsis and antiseptics in the treatment of open wounds.

H. P.

### "CAUSATION AND TREATMENT OF ITCHING."

According to *The New York Medical Journal* Dr. De Wannemacker, of Ghent, (*Wiener Med. Blätter*) says that from an ætiological point of view we may divide pruritis into the primary forms which are not associated with an eruption, and the secondary which either accompany or follow an eruption.

If there is such a thing as an essential pruritis, a true neurosis, not dependent upon any systemic or inflammatory disease, its occurrence, he thinks, is quite exceptional, and in the great majority of cases an apparently idiopathic pruritis must be looked upon as the expression of some local cause, such as the irritation from some local discharge, as leucorrhœa, or a general disease such as Bright's disease, diabetes, jaundice, etc. In secondary pruritis, dependent upon cutaneous irritation, the treatment is that of the skin affection by which the itching is caused. Often this is all that is required. But there are cases in which it is impossible in our present state of knowledge to cure the underlying disease altogether, such, for example, as psoriasis accompanied by itching. In such cases we must employ symptomatic treatment.

The extraordinary curative action of antiseptics in many cases of pruritis of the vulva goes to show that the trouble is caused by a micro-organism, even when the microscope fails to reveal its presence.

In order to treat scientifically primary pruritis, we must fix upon the cause of the nervous irritation, which must, in many cases, be due to morbid materials circulating in the blood, products that are developed in the system under certain conditions. This theory is supported by the great extent of surface often affected with itching, by its repeated occurrence and subsidence in various regions at different hours and on different days; by its being increased or lessened with the taking of certain articles of food or particular drugs, and by the fact that in those general diseases such as Bright's, jaundice, or diabetes, changes are known to take place in the blood.

Whether this change is due to uric acid, diminished coagulability of the blood or other disturbance, it is not less true that this theory best accounts for the occurrence and progress of attacks of itching. The best remedies are either anodyne or those that exert a direct effect on the blood.

Chloral, cannabis indica and gelsemium are included in the first class, and in the second class carbolic acid and the various coal-tar products that have both effects, antipyrin, phenacetin, etc. The use of salophen also often gives encouraging results. What its modus operandi is is unknown.

Dr. De Wannemacker gives condensed accounts of five cases where he tried salophen in daily amounts of from forty-five to seventy-five grains. One of them was a case of psoriasis, and it yielded promptly; but he states that he has since used it in that disease without result.

M. M.

### BRITISH MEDICAL ASSOCIATION.

Since our last issue, the list of officers for the Montreal meeting of the British Medical Association has been completed, Dr. Herman M. Biggs, of New York, having accepted the invitation of the Council to deliver the address in Public Medicine. (Dr. Biggs, the scientific head of the New York City Health Department, Physician to Bellevue Hospital, has done much to advance his subject. His address will be one of the features of the Meeting.)

By an Order-in-Council, the Provincial Government has subscribed \$2,000 for the purposes of the Association. Altogether, therefore, through the public spirit of the Dominion Government, Provincial Government, and Montreal City Council, \$10,000 has been granted towards the expenses of the meeting. These, with a guarantee fund, which is being obtained from members of the profession in Montreal and with private acts of hospitality on the part of the citizens, should be ample.

Sir Donald A. Smith, the High Commissioner, has invited the members of the Association and its guests to a reception at 1157 Dorchester St., upon the Wednesday evening of the meeting. Other leading citizens are offering afternoon entertainments. The Montreal Golf Club has also thrown open its Links to members during the meeting, and in very many directions generous help is being offered by those unconnected with the profession.

All this activity is, we are glad to learn, being met by a very promising condition of affairs upon the other side of the Atlantic. We learn that several steamship companies have already their best berths engaged by members, while some have already a full complement of prospective travellers. The invitations to the leading members in the United States have already been forwarded, and now the various sections are busy preparing their programmes.

We herewith print the provisional programme corrected up to date, it being understood that this is provisional and liable to further modification.

### BRITISH MEDICAL ASSOCIATION.

#### PROVISIONAL PROGRAMME.

WEDNESDAY, AUGUST 18th to THURSDAY, AUGUST 26th.

Meeting of the British Association for the Advancement of Science at Toronto.

- THURSDAY, AUGUST 26th to MONDAY, AUGUST 30th.  
Excursion for members and guests of the British Association, from Toronto via Niagara, Kingston, the Thousand Islands, Ottawa, etc., to Montreal
- MONDAY, AUGUST 30th  
Meeting of the Canadian Medical Association at Montreal.
- TUESDAY, AUGUST 31st  
12.00 a.m.—Service in the English Cathedral.  
2.30 p.m.—Windsor Hall: Opening ceremonies and addresses of welcome.  
3.00 p.m.—Address by the President-elect, T. G. Roddick, M.D., M.P.  
4.00 p.m.—Garden parties, excursions, around the Mountain, etc.  
9.00 p.m.—Soirée at Laval University.
- WEDNESDAY, SEPTEMBER 1st.  
10.00 a.m.—McGill University: Opening of sections.  
3.10 p.m.—Windsor Hall: Address in medicine by Dr Wm Osler.  
4.00 p.m.—Excursion down the St. Lawrence, etc.  
9.00 p.m.—Reception by the Hon. Sir Donald A. Smith, K.C.M.G., etc.
- THURSDAY, SEPTEMBER 2nd.  
9.30 a.m.—McGill University: Sectional meetings.  
1.30 p.m.—Lunch on the Mountain  
3.30 p.m.—Windsor Hall: Address in Surgery, by Mr. T. Mitchell Banks  
4.30 p.m.—Excursion across the Island, etc.  
7.45 p.m.—Annual dinner of the Association, Windsor Hall.
- FRIDAY, SEPTEMBER 3rd.  
9.30 a.m.—McGill University: Sectional meetings.  
3.00 p.m.—Windsor Hall: Address in Public Medicine by Dr. Herman M. Biggs, N.J., and concluding general meeting.  
4.15 p.m.—Excursion to St. Anne's and down the Lachine Rapids.  
9.00 p.m.—Soirée at McGill University.
- SATURDAY, SEPTEMBER 4th.  
Excursions to Ottawa Quebec, Kingston, Lake Memphremagog, etc.

### THE MEDICAL PROFESSION AND THE MOST RECENT TARIFF CHANGES.

The duty upon books under the old tariff was a specific duty of six cents per pound. This was changed on the 23rd of April to an ad valorem duty of 20%. Upon a certain class of good books this bore very heavily, as was pointed out in our editorial of last month. The representations made to the Hon. the Finance Minister have resulted in a reconsideration of the item. On works of fiction and on paper-covered and unbound books the rate remains at 20%, but on other books it is reduced to 10%.

The concession hitherto given to colleges and universities with regard to the free admission of books not printed in Canada, which are on the curricula of such teaching bodies "for the use of students," is allowed to stand with the omission of the words "for the use of students." This means for us that every medical work named on the curriculum of any medical college in the Dominion is to be admitted free of duty for all purchasers.

We entered a protest last month against the unfair treatment of medi-

cal libraries as contrasted with that accorded to law and certain other libraries, and the management of the Ontario Medical Library energetically strove for an equalization. The privilege sought for has been handsomely granted, and the libraries of medical, law, literary, scientific or arts associations are now placed on exactly the same footing.

But something better than even this is accorded us in the changes announced on the 25th of May. The Minister of Finance said: "We propose to put on the free list for everybody books such as would be used by young men interested in the study of mechanical arts: books on the application of science to industries of all kinds, including books on agriculture, horticulture, forestry, fish and fishing, mining, metallurgy, architecture, electric and other engineering, carpentry, shipbuilding, mechanism, dyeing, bleaching, tanning, weaving, and other mechanical arts. A part of this is based on the old tariff, but that portion which places on the free list books upon the application of science to industry is a new item."

THE LANCET is glad to be able to announce that the customs authorities at Toronto, by a liberal interpretation of the above claim, which does not specifically mention medicines as one of the branches of applied science, are now allowing the free entry of all books on medicine and surgery. Furthermore, American reprints of English works not copyrighted in Canada may now be imported into Canada. The broad and liberal spirit shown in the changes which we are able to announce is vastly to the credit of the Hon. Mr. Fielding and his colleagues.

It has been decided that surgical instruments, which with binders' twine and barbed wire were placed on the free list, should, like these other articles, continue to pay the old rate of duty for the current year. After January 1st, 1898, these may all be entered free of duty.

N. A. P.

PILL GUY HOSPITAL.—Under the title of "Pill Triplex No. 2, Guy Hospital," Messrs. Parke, Davis & Co. have added to their list a formula largely used in cardiac dropsy, consisting of blue mass, Digitalis and squill, each pill containing one grain each. It is supplied in gelatin-coated only, oval in shape. Physicians generally, who have been using this pill, will be glad to know that it can be procured in this desirable form and from a firm of such well-known repute as Messrs. Parke, Davis & Co.

PERSONAL.—Dr. A. C. Lambert, late of the General Hospital here, and now of the R.M.S. *Empress of China*, has continued to prosper in his new sphere. He had to grapple, in his last voyage home, with an outbreak of small-pox, which was completely controlled in short order. The passengers appreciated his management of the threatened epidemic to the tune of a very handsome purse at the end of the voyage.

## NEW TREATMENT OF PROLAPSUS ANI.

Dr. Platt, in the *Johns Hopkins Hospital Bulletin; Jour. Am. Med. Assn.*, offers the following as a modification of treatment of prolapsus by suture. He says this method of treatment is not at all original with him. He had operated on a child in vain by other methods. He had twice employed linear cauterization, thus endeavoring to bring about adhesion between the bowel and the tissues, but without avail. Dr. Earle, of Baltimore, recommended an operation which Dr. Kelly had suggested, and which completely cured the prolapse. Not long ago, this second patient entered the Garrett Hospital, with an obstinate prolapse of the rectum, which projected about four inches below the body each time the child had a stool. He did this operation, keeping the suture in for three weeks. It was entirely successful. He afterward learned that Dr. Kelly has used this operation in the vagina in cases of prolapse of the uterus. In the case of the anus the operation is as follows:

At the junction of the skin and mucous membrane, just beneath the latter, a curved needle is inserted in the median line below, and a silk thread is carried half way around the anus and out again, in the median line above, re-inserted in the same opening, and brought out at the first puncture, making a purse-string suture. The little finger is then put in the anus and the string tied snugly around it. Apparently this would cause suppuration, and possibly a fistula. It does nothing of the kind, nor does it cause any pain afterward. The child has his stools in the recumbent position. If the feces are at all hard, injections are given to soften them. After three weeks the suture is withdrawn and the place kept clean, when it heals immediately, with no return of the prolapsus. By this method the bowel is kept in place long enough to contract.

## DIET IN EPILEPSY.

Dr. Haig contributes an article to "Brain," *Lancet*, which deals with the effects of diet and drugs in epilepsy, which, he thinks are due to the differences they produce in the excretion of uric acid. Dieting in epilepsy is an old therapeutic measure, which has probably often a distinct influence in individual cases, depending on various idiosyncrasies of which we know little, although it must be confessed some authorities have met with people in whom a strict diet seemed to increase the number of fits. The object of this mode of treatment is to limit nitrogenous foods, and so limit the amount of uric acid in the system. Dr. Haig thinks that the treatment has been a failure only because it has not been carried far enough, and he quotes a number of cases to show how a number of uric acid-forming compounds may be contained in a diet which at first sight appears to contain very few. Without going so far as to believe that uric acid and epilepsy are in such direct relations as cause and effect, which is the view that Dr. Haig holds, it is conceivable that in predisposed persons an excess of uric acid in the system might act as the exciting cause; and so, therefore, in many cases it might be worth while to try the effect of such a strict diet as Dr. Haig advocates, in the hope of at any rate diminishing the number of fits.

### TIME TO RUPTURE THE AMNIOTIC SAC IN LABOR.

Says the *N. Y. Med. Rec.*—1. In multiparæ, rupture when os is fully dilated. 2. In primiparæ, delay until the soft parts are also dilated. 3. In cases of face and breech presentation, delay in rupturing the sac is best. 4. When the pelvis is small and the fetus large, delay rupturing. 5. In premature labor, with a dead fetus, rupture early. 6. Rupture the sac early when the membranes are unusually thick, tough and unyielding. 7. When speedy delivery is demanded rupture early. 8. Rupture the sac when an excessive amount of amniotic fluid retards labor. 9. When version is necessary and can be accomplished by bimanual manipulation, perform the operation before rupturing. 10. Remember that a dry labor is always to be deprecated, hence do not rupture at all unless for good reasons and the case demands it.

### EARLY SIGN OF MENINGITIS.

A constant sign of commencing meningitis consists in the inharmonious movements of the chest and diaphragm (*Times and Register*). It exists from the beginning and may serve to reveal it even in insidious cases. It requires careful searching. The chest and abdomen must be bared, but not suddenly, or the hyperæsthetic skin will take on accidental movements from the action of the air.

In the first period of meningitis irregularity of the rhythm and then inequality of the amplitude or development of the chest are seen. Another sign is the irregular type of respiration and dissonation of the movements of the chest and diaphragm. The respiration is effected by the lower respiratory muscles of the chest. There is either immobility or depression in the umbilical region with each inspiration, instead of the normal elevation. These movements are not connected with the Cheyne-Stokes type of respiration.

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PRURITUS VULVÆ.—The best treatment, whatever the nature of the malady (senile, nervous or inflammatory), consists in washing the vulva, vagina and cervix uteri with soap and a mercuric chloride solution every three or four days. After each washing, the regions which are especially pruritic are coated with a thin layer of vaseline, with three to five per cent. carbolic acid.—*Pruge*.

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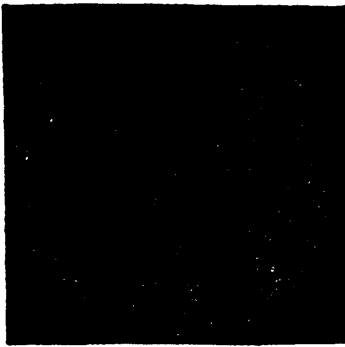
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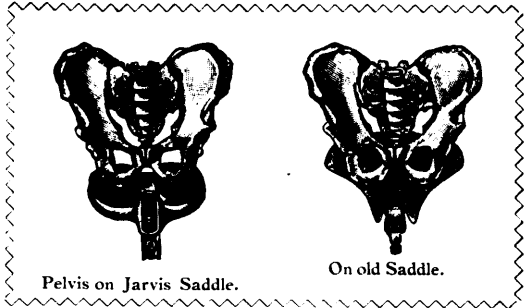
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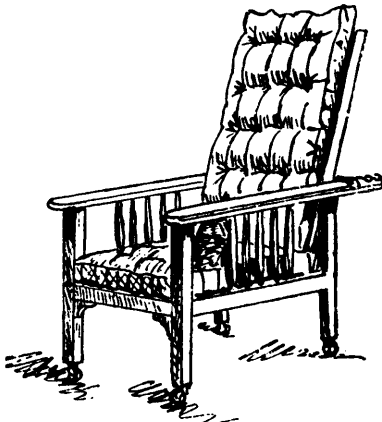
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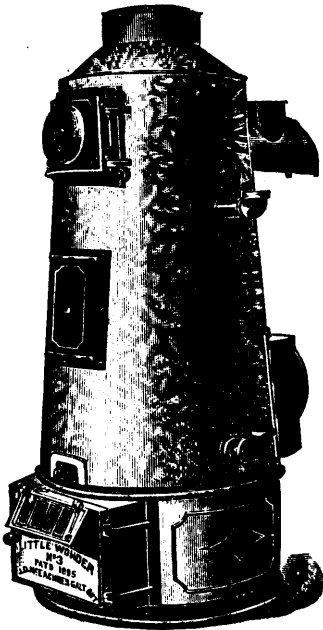


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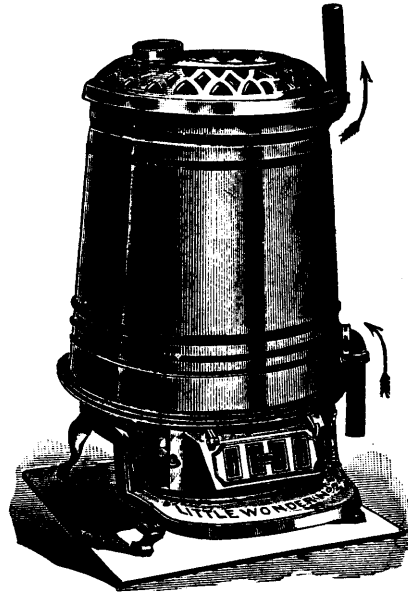
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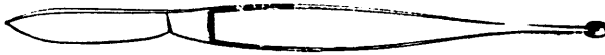
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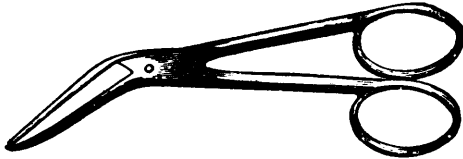
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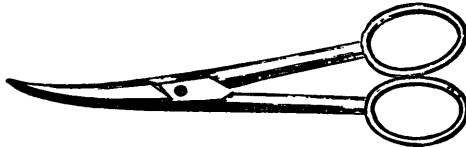
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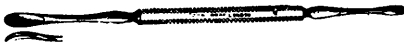
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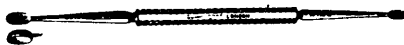


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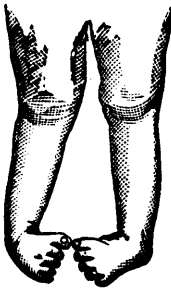
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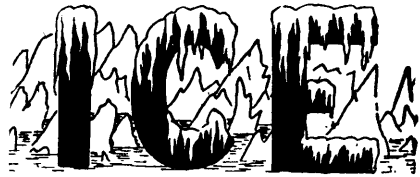
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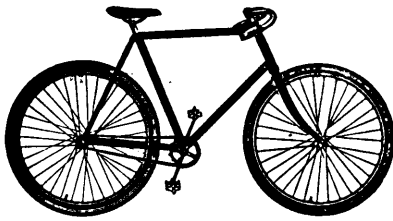
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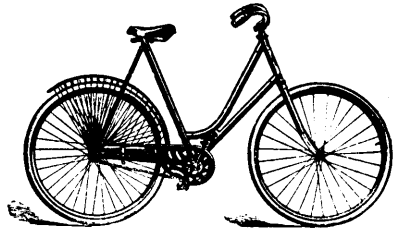
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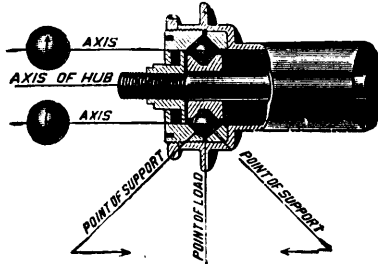
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