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THE
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A MONTHLY JOURNAL

OF

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THE CANADA LANCET :

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

VOL. VII. TORONTO, SEPTEMBER, 1874. No. 1.

Original Communications.

CONTAGIOUSNESS OF ENTERIC FEVER.

BY ARCHIBALD E. MALLOCH, M.D., HAMILTON.

(Read before the Canadian Medical Association,
August 5th, 1874.)

Mr. President and Gentlemen,—It is still an unsettled question whether or not Enteric Fever is contagious in the strict sense of the term. Dr. Wm. Budd holds that it is, and gives this as one of the proofs of its being a specific fever: whereas, Sir C. Murchison says,* “Although Enteric Fever is communicable, my experience is entirely opposed to the view that it is contagious in the strict sense of the term. Visiting or contact with the sick is neither sufficient nor necessary to produce it, and it is never propagated by a third person.” Dr. Murchison holds that it is not a specific fever, and that it arises *de novo* from decomposing vegetable or animal matter, hence the term pythogenic which he gives to this fever.

Having had, during 1873, several cases of Enteric Fever which seemed to prove the contagiousness, in the strict sense of the term, of this disease, I thought it might be interesting to detail the cases and the circumstances under which they occurred.

The notes which were taken while waiting for the mercury to rise in the thermometer placed in the axilla, have been abbreviated, but they are sufficient, I hope, to characterise the majority at least of the cases as Enteric. Exception may be taken, however, to the cases Nos. VII. and VIII., but reasons will be given for their being so classified. The temperatures given are those of the morning.

* Treatise on Continued Fevers, page 465.

CASE I.—July 15th, 1873.—Yesterday I visited Edward W—, æt. 25. Machinist. A history of not having been well for three weeks, but only off work for ten days, and confined to the house for five, was given. He had suffered from “chills and sweats,” with headache; had lost his appetite and been thirsty. To-day he is in as feverish a condition as yesterday, and his bowels have been moved four times without an aperient; there is tenderness in R. Iliac fossa, and several rose colored papules are seen on the abdomen. Pulse, 96; respirations, 28; temperature, $104\frac{1}{2}^{\circ}$ F.; cough troublesome; expectoration, white, tough, frothy mucus, streaked with blood. Ronchi heard over chest generally, and a few bubbling râles at bases behind. Milk *ad libitum*, and poultices to chest were ordered along with the use of an acid and quinine mixture given yesterday.

July 16th.—Slept pretty well; three motions, semi-solid and of a pale yellow colour. Pulse, 96; respirations, 32; temperature, 104° F.

July 17th.—Slept well; has taken three pints of milk; three motions, the last is like pea soup; spots, at first noticed fading and others appearing. Pulse, 94; respirations, 28; temperature, $103\frac{1}{2}^{\circ}$ F.

July 18th.—Six motions like pea soup, for which four pills of lead and opium were taken during the night; vomited once. Pulse, 94; respirations, 26; temperature, $101\frac{1}{2}^{\circ}$ F.

July 19th.—Six motions; vomited twice; got three pills of lead and opium. Pulse, 96; respirations, 28; temperature, $102\frac{1}{2}^{\circ}$ F. Tongue, dry, brown in centre and red at edges.

July 20th.—Eight loose motions. Pulse, 90; respirations, 24; temperature, 102° F.

July 21st.—Slept well; four motions. Pulse, 76; respirations, 24; temperature $102\frac{1}{2}^{\circ}$. During the night a bloody purulent discharge came from the R. ear, which is to be syringed twice a day with luke-warm water; there had been no complaint of ear-ache.

July 22nd.—Three motions. Pulse, 70; respirations 24; temperature, $100\frac{1}{2}^{\circ}$ F. Tongue not so dry, and clearing in centre.

July 24th.—Two motions. Pulse, 72; respirations, 18; temperature, $99\frac{1}{2}^{\circ}$ F.

July 26th.—Three motions yesterday and one to-day. Pulse, 72; respirations, 22; temperature, $100\frac{1}{2}^{\circ}$ F.

July 27th.—No change.

July 29th.—Pulse, 78; temperature, 100° F. One motion daily.

July 30th.—Complained of abdominal pain during night, and this morning a copious motion, apparently composed of blood alone, was passed. At present he is sweating profusely; abdomen distended with flatus, but not tender. Pulse, 88; temperature, 99½° F. Has taken two pills of lead and opium, and is to have one every three hours.

July 31st.—Has passed a good deal of flatus; no motion. Pulse, 96; temperature, 101° F. Tongue red and glazed.

August 1st.—Two motions of pretty firm consistency; no blood. Asks for solid food, but only milk allowed. Pulse, 80; temperature, 99½° F.

August 3rd.—Three motions since last note; bread with milk allowed. Tongue not so glazed. Pulse, 80; temperature, 99½° F.

August 8th.—Convalescent.

E. W—— worked till the 1st of July, when he accompanied the firemen to Port Hope, where he was taken with headache and pain in the back. On his return to the city on the 2nd, he went to a farm a few miles distant and remained there till the 7th or 8th, when he came home and took to his bed. Before leaving for Port Hope he had been feeling "out of sorts," and had remarked to his mother that he "was going to have a sickness." His dwelling, a one and a half storied rough-cast house, situated on the corner of King William and Mary streets, has an underground cellar but poorly ventilated by two small windows. The cellar is flooded in the spring and fall, and can be used only during the dry seasons of summer and winter. The streets are not drained, but the house is built over an old drain which is now closed at both ends, though not filled up in its length. The house, as well as the Appleton Sewing Machine Factory at which he worked, is supplied with the city water, and he is quite certain that while in Hamilton he never drank other than this water. At the farm and probably at Port Hope he drank well water. The milk used was from their own cows. He had not visited any sick person.

In all likelihood this case was caused by the emanations from the old unused drain, for no other probable cause can be found,—the water used up to the 1st, when he became ill, was the city water which comes direct from Lake Ontario, and the milk was uncontaminated, for no case occurred

among the members of three other families who then used it; nor was he, so far as known, exposed to contagion,—and in corroboration of this view, viz., of the poisonous emanation, it is to be remarked that he alone of the family of three, slept in the room down stairs immediately over the cellar.

So far as can be found, this case arose *de novo*, for no other cases had occurred previously in the neighbourhood (strict inquiries were made), and this was the first case reported to the Fever Committee of the Hamilton Medical and Surgical Society for the summer of 1873.

E. W——'s motions, not disinfected, were thrown into the common privy in the yard.

CASE II.—Aug. 22nd, 1873.—Rebecca B——, æt. 16. Has been feeling sick for eight or ten days, but only confined to bed for three; has had chills and sweats, with severe headache, of which she chiefly complains. (She is a niece of Edward W., and went to her grandfather's house on the 17th of July to assist her grandmother in nursing and to do the washing and cooking. She remained with them till the 14th of August, when she accompanied a lady as her servant to Hespeler, and on that night was seized with severe headache and pain in the back, and on the following day returned to Hamilton and went to her father's house).

Anorexia marked; thirst great; bowels confined; perspired freely last night; tongue moist. Pulse, 96; temperature, 104½° F. No tenderness in R. iliac fossa, and no spots. Milk ordered, and 15 minims of dilute hydrochloric acid in water every three hours.

August 23rd.—Slept pretty well; headache not so severe; no motion. Pulse, 92; respirations, 16; temperature, 104° F. Tip and edges of tongue red, centre coated with white fur. To get a dessert-spoonful of castor oil.

August 24th.—Five motions, the last is watery, with ochery coloured flakey masses in it. Little sleep. Headache continues. Pulse, 90; respirations, 20; temperature, 103½° F. 15 grains of hydrate of chloral ordered at bed-time. The motions which were thrown into the privy in the yard, are in future to be carried at once and buried at some distance from the house.

August 25th.—Slept well; headache relieved; no motion. Pulse, 86; respirations, 24; temperature, 103½° F.

August 26th.—Slept well. Pulse, 92; respirations, 20; temperature, $103\frac{3}{8}^{\circ}$ F. Takes plenty of milk.

August 28th.—One motion, semi-solid, of a light yellow colour; has a slight cough. Ronchi heard here and there in chest. Pulse, 98; respirations, 24.

August 29th.—One motion. Slept well. Pulse, 92; temperature, 102° F.

August 30th.—One motion. Slept well. Pulse, 90; temperature, $101\frac{3}{8}^{\circ}$ F. Is quite deaf; no ear-ache. Tongue moist and clean. Gurgling in R. Iliac fossa.

August 31st.—Four motions like pea-soup. Pulse, 90; temperature, $101\frac{2}{8}^{\circ}$ F.

September 1st.—Four motions. Temperature, 100° E.

September 4th.—Was seen each day, but no notes were taken. Bowels moved each day; appetite returning. Pulse, 84; temperature seems normal.

September 17th.—Has been sitting in the rocking chair since last note, and has been allowed, contrary to orders, to eat what she liked. For three days she had been feverish and thirsty, and to-day complains of abdominal pain. Abdomen distended and tender. Pulse, 100; respirations, 30; temperature, $103\frac{2}{8}^{\circ}$ F. M^o. diet and acid mixture resumed.

September 18th.—Five loose motions. Abdomen not so tender. Pulse, 100; temperature, $101\frac{1}{8}^{\circ}$ F.

September 19th.—Four loose motions. Pulse, 104; temperature, $102\frac{1}{8}^{\circ}$ F.

September 20th.—Slept well and feels better. Pulse, 84.

In a day or two she was allowed to sit up; and she did well till the 13th of October, when she had another relapse, which confined her to bed for four or five days. Convalescence afterwards advanced to complete recovery.

As the preceding cases are those which impressed me with the contagiousness of this disease, it may be as well now to direct your attention to the family of E. B., into which the fever was imported. The family, which consisted of the father and mother and the children, who then numbered eight, had occupied for some years the house No. 216 North John street, on the north-east side of the railway embankment, which is 20 feet high; and during that time no case of fever had occurred. The sleeping apartments, consisting of two small

rooms opening into the larger one, are on a level with the street; below there is a store-room and kitchen, lighted only from the back, and never used as a sleeping apartment, which communicates with the rooms above by a closed-in stair built outside of the dwelling. The house, excepting by its situation on the edge of the embankment, is not drained. The well behind the house, which is in close proximity to three privies, supplies them and three other families with water, and was used by them up to, and for three weeks contrary to directions after, R. B.'s return home. The city water was afterwards used by the family. The other families, who continued though warned, to use the well water, did not take the fever. The milk was supplied by their grandfather, who sold it to other families, who did not contract the disease; the milk cans were wrinsed in city water. Up to the 24th August, R. B.'s stools, not disinfected, were thrown into the privy, but afterwards they were taken and buried at the bottom of the railway cutting, as were the motions of the succeeding cases. No member of the family, with the exception of the father, mother and R. B., visited their grandfather's house, which is nearly a mile distant from theirs, during E. W.'s illness.

CASE III.—August 28th, 1873.—A. B., female, æt. 6 years. Acid mixture was prescribed on the 26th when my attention was first directed to her case. During the past two days she has been in a high fever, and the bowels have been loose. Pulse, 120; respirations, 50. Tongue red and dry. Snoring râles heard over the whole chest. Poultices to the chest ordered.

August 29th.—Raved during night; had little sleep; takes very little milk, but drinks large quantities of water. Five loose motions. Abdomen swelled, and tenderness in R. Iliac fossa. A few rose coloured papules on abdomen. Pulse, 135; respirations, 48; temperature, $103\ 2\text{-}5^{\circ}$ F. 8 grains of chloral hydrate to be given at bed-time.

August 30th.—Dosed most of the night. No motion. Tongue moister; has taken $1\frac{1}{2}$ pints of milk. Pulse, 136; respiration, 52, temperature, 103° F. To take mixture containing Vin ipecac and Sp. ammon. ar.

August 31st.—Five loose motions of a light yellow colour; passed three round worms. Three or four new spots on abdomen. $1\frac{1}{2}$ pints of milk taken. Cough softer. Pulse, 136; respirations, 50; temperature, 103° F.

September 1st.—Two pints of milk taken. Tongue brown and dry; lips cracked. Pulse, 136; respirations, 40; temperature, 101 3-5° F. Two loose motions. Seven round worms passed. To take acid mixture.

September 2nd.—Slept well; tongue moister. Abdomen larger. One loose motion. Pulse, 140; respiration, 36; temperature, 102° F.

September 3rd.—One loose motion. Pulse, 140; respiration, 40; temperature, 102° F.

September 4th.—Did not sleep so well. One pint of milk taken. Abdomen tympanitic and tender. Seven loose motions. Pulse, 130; respirations, 40; temperature, 101° F. To have 8 grains of chloral hydrate at bed-time.

September 5th.—Slept well; taken 1½ pints of milk. Seven loose motions. Pulse, 120; respirations, 40; temperature, 101° F.

September 6th.—Taken 1½ pints of milk. Six loose motions. Fresh spots on abdomen. Pulse, 130; respirations, 36; temperature, 100 2/3° F. To take chalk and catechu mixture.

September 7th.—Six motions. Slept well. Pulse, 108; respiration, 30.

September 8th.—Three motions. Slept well. Pulse, 126; respiration, easy; temperature, 99 2-5° F. Abdomen not so tense. There are several rose-coloured blotches on body and two on face.

September 10th.—Two motions. Pulse, 110; respirations, 28; temperature, 99 2-5° F.

September 15th.—One motion daily since last note. Takes plenty of milk. Abdomen still tympanitic. Pulse, 115; respiration easy; temperature, 100 1-5° F.

September 17th.—Pulse, 118; respirations, 38; temperature, 101 2-5° F. Wheezing in chest greater. Poultrices ordered.

September 20th.—Three motions since yesterday. Pulse, 134; respirations, 34. Quinine was added to the acid mixture.

No further notes were taken. Child recovered.

On the supposition of contagion, the period of incubation in this case must have been from six to seven days, for R. B. returned on the 15th and A. B. was in the second week of the fever (from the presence of the spots) on the 29th. This period is shorter than that usually allotted, but equally short periods have been observed.

CASE IV.—September 20th, 1873.—Minnie B., æt. 8. Has been languid and lying about the

house for several days, and for two days has complained of headache. There is thirst and loss of appetite. Pulse, 100; temperature, 99 4-5° F. Ordered milk and acid mixture.

October 2nd.—Was not confined to bed till the 31st of September. Bowels confined. Vomited once to-day. Face flushed. Tongue moist, covered with greyish white fur in centre; its tip and edges red. Pulse, 120; respirations, 30; temperature, 103 1-5° F. No spots. Abdomen natural. No gurgling.

October 5th.—On the 3rd, got a dose of castor oil, which operated three times. Has vomited several times; does not take much milk. Tongue not so moist; lips dry and cracked. Pulse, 116; respirations, 30; temperature, 103 2-5° F.

October 7th.—Was restless during night. One motion since last note. Pulse, 110; respiration easy; temperature, 103° F.

October 13th.—Bowels moved by castor oil. Pulse, 96; temperature, 101 1-5° F.

October 15th.—Pulse, 84; temperature, 100 1/4° F. Sleeps well; does not wish for solid food; thirst moderate.

October 21st.—Bowels moved once daily since last note, till last night, when diarrhoea set in. Eight characteristic motions passed. Pulse, 120; respiration easy, slight cough; temperature, 104 2-5° F. Abdomen tympanitic and tender. Poultrices to abdomen and one pill of lead and opium ordered every four hours.

October 22nd.—Slept pretty well. Ten loose motions, but none during last three hours. Abdomen very tympanitic. 1½ pints of milk taken. Pulse, 130; respirations, 28; temperature, 104° F. To have 25 minims of laudanum in a teaspoonful of thin starch as a clyster after each motion.

October 23rd.—Was restless and complained of abdominal pain during night. Three motions. Pulse, 134; respiration easy; temperature, 103 2-5° F. To get ten grains of chloral hydrate at bed-time.

October 24th.—Restless night. Six motions. Pulse, 140; temperature, 104° F.

October 25th.—Slept pretty well. Two motions. Pulse, 130; temperature, 103 2-5° F. Aromatic sulphuric acid and quinine mixture ordered.

October 26th.—Restless night. One motion. Abdomen less tympanitic and not so tender. Pulse, 130; temperature, 103 1-5° F.

October 27th.—Slept well. One motion. Pulse, 132; respirations, 34; temperature, 102° F.

October 29th.—Slept well. Two motions. Pulse, 122; temperature, 102 2-5° F.

October 31.—Slept well. Three motions. Pulse, 120; temperature, 103° F.

November 2nd.—No motion during past forty-eight hours. Pulse, 120; temperature, 99 2-5° F.

November 3rd.—Three motions. Pulse, 116; temperature, 100° F.

November 7th.—Sleeps well and now asks for solid food. Pulse, 100; temperature, 100° F.

November 9th.—Is sitting up in bed. Pulse, 98; temperature normal. A little solid food allowed.

November 12.—Convalescent.

CASE V.—October 11th, 1873.—Emily B., æt. 15.—Three days ago she had an epileptic fit, (for two years she has been subject to them, which occur generally before each period of menstruation), and since has been suffering from pains in her limbs and back, from headache, loss of appetite and thirst. Pulse, 96; respiration easy; temperature, 100 1-5° F. Ordered milk diet and the acid mixture.

October 13th.—Pains in limbs continue, but not so severe. Has slept well. One dark colored motion each day. Menstrual discharge present. Pulse, 96; temperature, 101 1-5° F.

October 18th.—Has slept well. During last two days has vomited frequently and now complains of epigastric pain, but this region and that of R. Iliac fossa are not tender. Gurgling present. Tongue clean; edges very red. Pulse, 96; temperature, 101 4-5° F.

October 21st.—Abdominal tenderness. Two loose motions. Pulse, 94; temperature, 103° F.

October 22nd.—No motion. Pulse, 96; temperature, 103 2-5° F.

October 24th.—One motion. Pulse, 96; temperature, 102 4-5° F.

October 28th.—One motion. Pulse, 90; temperature, 102 2-5° F.

October 29th.—Had a fit during night. Four loose motions containing blood during night. Pulse, 100; temperature, 100° F.

October 30th.—Three loose motions; has vomited frequently. Pulse, 100; temperature, 103 4-5° F. Lime water to be added to milk.

November 2nd.—Feels much better; has a

slight cough. Three motions since yesterday. Pulse, 84; temperature, 101 2-5° F.

November 4th.—Four loose motions. Pulse, 94; temperature, 103° F.

November 7th.—Four loose motions. Pulse, 98; temperature 104° F. Abdominal tenderness slight.

November 9th.—Three loose motions. Temperature, 100 2-5° F. Abdomen and chest covered with sudamina.

November 12th.—Four motions. Pulse, 100; temperature, 100 2-5° F. A fit this morning.

November 16th.—Keeps well; is inclined to eat solid food. Pulse, 96; temperature, 99° F. Feels much better.

Recovered by December 1st.

CASE VI.—November 12th.—Ada B., æt. 3½ years. Has been cyanotic since birth. The duskiness, though general, is chiefly observed on lips, fingers, toes, ears, tongue, etc. Eyeballs prominent and congested. Fingers and toes bulbous. Her mother states that when she takes cold, which she does very easily, her breathing becomes short and laboured; in other respects she has been quite healthy. She is an exceedingly bright, active and intelligent child, and is the pet of the house. Apex beat in line with nipple; cardiac dulness slightly increased; no murmur. On Sunday the 9th she had a severe chill, followed by abdominal pain and pain in head, of which she now complains. Has slept but little; thirst great. On the 10th she passed three loose, watery motions, and yesterday four. Abdomen swollen, tense and painful. Pulse, over 120; very weak; respiration, 26; temperature, 104° F. Poultices to abdomen. Milk diet and acid sulph. ar. mixture ordered.

November 13th.—Pulse, 130; respirations, 26; temperature, 103 2-5° F. Slept pretty well. Five loose motions. Abdomen not so tense. Lips dry and cracked. Took one pint of milk.

November 14th.—Two loose motions. Abdomen much the same. Did not sleep so well. Pulse, over 126; temperature, 103° F.

November 15th.—Slept pretty well. Bowels moved frequently in bed, apparently without control. Motions very watery. Pulse, 134; temperature, 102 4-5° F.

R.—Plumb. Acetat., grs. ij.

Pulv. Doveri, grs. iij.—M.

Fr.—Pulv. et mitte tales. X.

Sig.—One every 3 hours.

November 16th.—Slept well. Taken one pint of milk. Three motions. Pulse, 100; temperature, 101° F. Acid mixture resumed.

November 17th.—Slept well. One motion. Pulse, 120; temperature, 100 4-5° F.

November 19th.—Slept well, and takes plenty of milk. One motion. Pulse, 108; temperature, 99° F.

November 21st.—Slept well, and takes plenty of milk. Asks for bread and butter. One motion yesterday and to-day. Pulse, 96; temperature, 98 2-5° F.

November 22nd.—Sudamina on chest and abdomen. Feels and looks much better; plays with her toys.

November 25th.—Is sitting up in bed, laughing and playing.

Convalescent.

CASE VII.—November 16, 1873.—Sarah B., æt. 7 years. Has been complaining more or less for a week or ten days past, but as she was not confined to bed, my attention was not directed to her till to-day. She has been dull and heavy, and has complained several times of being chilly; at times she has been quite hot and feverish. She is thirsty and has lost her appetite. There has been no vomiting or diarrhoea, but the bowels have been moved each day without medicine. Pulse, 120; respiration easy; temperature, 101 2-5° F. Tongue moist and covered with a white fur, except at the tip and edges, which are red. No spots or abdominal pain.

November 17th.—Slept well; headache gone. Pulse, 100; temperature, 101 4-5° F.

November 19th.—Takes plenty of milk; no desire for solid food. Pulse, 100; temperature, 100 2-3° F.

November 21st.—Pulse, 100; temperature, 100 2-5° F. Bowels confined for two days.

November 25th.—Pulse, 98; temperature, 100° F.

No further notes taken, as patient gradually recovered without a bad symptom.

CASE VIII.—November 28th, 1873.—Robert B., æt. 40. Was taken ill he thinks on the 24th, and since that time has suffered from pain in his back and limbs. He continued at his work as a switchman till to-day, when he was compelled by weakness and the pains to keep to the house. Has lost flesh and has little or no appetite; is

thirsty. Pulse, 76; respiration easy; temperature, 100° F. Bowels moved by medicine. Tongue clean, but indented at the edges. Milk and acid mixture ordered. Confined to bed.

November 29th.—Slept well. Has taken 1½ pints of milk and a little toast. Complains of dull aching pain in small of back. Bowels moved once without medicine. No abdominal pain; no spots. Pulse, 84; temperature, 100° F.

November 30th.—Pulse, 82; temperature, 100° F. One motion.

December 2nd.—Slept well. Two motions during last twenty-four hours without medicine. Pulse 70; temperature, 99 2-5° F. Quinine with acid mixture ordered.

December 4th.—Bowels moved each day. Pulse, 80; temperature, 99 3-5° F.

December 6th.—Has taken plenty of milk and some bread; has no inclination for solid food. One motion each day. Got out of bed yesterday, but was glad through weakness to return to it at once. Pulse, 72; temperature, 98 2-5° F.

December 12th.—Has been out of bed each day since last note. His strength is returning and also the appetite. Bowels have been regular. Convalescent.

CASE IX.—December 10th, 1873.—Frederick B., æt. 2 years. Has been ailing, his mother says, for more than a week past, during which time his bowels have been loose. During the day he always seemed better, and my attention on this account was not directed to him; but each night he has been hot and feverish. He has lost all appetite and has been very thirsty. Limbs soft. Pulse, 120; temperature, 101 3-5° F.

R.—Plumb. Acetat.

Pulv. Doveri, aa. gr. i.—M.

Fr.—Pulv. et mitte. tales, VI.

Stc.—One every 4 hours.

December 11th.—Passed a restless, feverish night. Two loose motions. Abdomen tympanitic and painful. Several spots noticed on abdomen. Pulse, 135; temperature, 102° F. Is taking a pint of milk daily.

December 12th.—At night is restless, but during the day sleeps a good deal. Six loose motions passed in bed. Tongue white in centre and red at edges. Pulse over 130; temperature, 103 3-5° F.

December 13th.—Two loose motions. Restless

night. Pulse about the same; temperature, 103° F.

December 15th.—Slept well; takes plenty of milk. Three motions, not so watery as before. Temperature, 103 4-5° F.

December 17th.—General appearances better; is very cross. One motion. Temperature, 102° F.

December 19th.—Asked to-day for bread. One motion. Pulse, 118; temperature, 101 4-5° F.

December 23rd.—On the 21st the bowels were loose, but since have been costive. Is livelier and wishes to play, but is very weak. Pulse, 104; temperature, 98 4-5° F.

December 27th.—Sleeps well, and now takes solid food. Strength returning. Pulse, 108; temperature normal. Bowels moved each day. Convalescent.

It has been, and may be disputed whether or not similar cases to Nos. VII. and VIII. should be called enteric; but the fact that these two occurred in succession to undoubted cases of this disease, and were followed by one marked case of Enteric Fever in a child, will be sufficient proof to many that these were mild examples of the same disease. These were cases of fever, and by exclusion they can be no other than enteric, though wanting the rash and enteric symptoms. The duration was too great for simple continued fever; and I know not any class of fever excepting Enteric to which they could be assigned.

Regarding the absence of enteric symptoms, it may be as well to quote the following sentence from the last edition of Sir Charles Murchison's treatise on continued fever, page 647: "In most of the mildest cases of enteric fever, there is never at any time diarrhoea, the absence of which is in itself a favourable indication.

With the facts that have been stated there seems little need of giving reasons why the spread of the disease should be thought due to simple contagion, without the aid of polluted ingesta, which are the ordinary means by which it is carried from one to the other. The disease was not spread by the water, for the city water which was used during most of the time is pure, and could not have been contaminated; and the well water which was drunk by them for a few days after R. B.'s return did not give rise to it in the other families. That other families used milk from the same source without infection, is proof that it was not the cause nor the means of its spreading.

The stools of R. B., passed during the first few days of her illness, were thrown into the common privy; but it is hardly credible that the air polluted by them should have affected those using the place two months afterwards, especially when we remember that these were the cold months of October and November. It is most probable that the disease was spread by the contaminated air in the house, or by actual contact—one body with the other.

Former experience had led me to believe what is generally taught, that the disease is not in the strict sense of the term, contagious; and even now, while believing fully in its contagiousness, I must consider it but mildly so, for imported cases have occurred in large families under my care without spreading, and that without the use of disinfectants, but in houses well ventilated and under far more favourable circumstances for the isolation of the patients.

May not the cases which follow in succession in a house, and which are generally attributed to the cause which produced the first, be due frequently to contagion?

These cases have taught me that it is as much the duty of the physician to order the use of disinfectants to the motions, clothing, &c., and in the room, as to prescribe for the patient under his care.

PATHOLOGY AND TREATMENT OF VARICOCELE.

BY J. LIZARS LIZARS, SURGEON, TORONTO.

Notwithstanding the fact, that every student of medicine and medical man, at one time or another, has had an intimate knowledge of anatomy; nevertheless, the lapse of time—fortunately for the human race—begets forgetfulness, and therefore I begin this article with a refresher, (not of the kind used in the Tichborne trial) on the anatomy of the spermatic veins and other constituents of the spermatic cord, as, by a correct knowledge of their anatomy, can the surgeon alone properly diagnose and treat the affection under consideration.

Leaving out of view the skin, superficial fascia, or fatty layer beneath the skin—which, however, be it remarked, diminishes very sensibly in thickness as we descend from the abdomen to the scro-

tum—and the delicate layer formed by the prolongation of the inter-columnar fascia, we find the cord proper, composed of the cremaster muscle, the prolongation of the infundibuliform process of the fascia transversalis, the sub-peritoneal fatty layer—which, like the superficial fascia, loses its fatty matter more and more as it descends—the spermatic vein, the spermatic artery, nerves and the vas deferens.

Now, first let me point attention to the spermatic veins. These commence in a plexus around the seminal tubes, and leave the testicle at its posterior border, between the reflections of the tunica vaginalis (visceral and parietal layers), then form a plexus around the cord which ends, usually, in one vein ere it enters the inguinal canal. In this part of its course, it lies superficial and rather external to the artery and vas deferens, and keeps this relation through the canal. The right vein, dividing into two branches in the abdomen, passes along with the artery for some distance; these then join to form one vein, which, leaving the artery, enters the vena cava ascendens obliquely, its current thus mingling *easily* with the upward current of the vena cava. In its upward passage, the right vein lies rather internal to the caput cœcum coli. The left vein, after entering the abdomen, like the right, accompanies the artery for a time, but finally leaving the artery, pours its stream of blood into the left renal vein, at a right-angle with the current of the latter. Furthermore, in its passage upwards, it is crossed by the sigmoid flexure. In these anatomical relations of the two veins, we have the explanation of the fact observed in practice, viz., that varicocele is more frequent on the left than on the right side. The right vein is unobstructed by accumulations of hardened fœces pressing upon it, and its current flows in the same direction as the major current it has to join; whereas the left vein is liable to be pressed upon by hardened fœcal matter in the sigmoid flexure of the colon, and its small current is liable to further obstruction, as it has to empty itself at a right-angle into the greater current of the left renal vein.

In structure, these veins, like others, possess a delicate internal lining membrane, with epithelium, a middle partially elastic and muscular coat, and an external one of connective tissue; the middle coat being weak. Veins do not contract like arteries, and so, when subject to pressure from within,

are more liable to dilatation than the latter, and have not the same power of regaining their normal size; at the same time they become elongated and tortuous, or varicose.

The spermatic arteries having emerged from the external abdominal ring, posterior and internal to the vein, but rather external and in front of the vas deferens, pass downwards towards the posterior border of the testicle, dividing and becoming very tortuous, and after giving branches to the epididymus, are distributed to the testicles.

The vas deferens, having left the epididymus, passes upwards, rather behind and internal to the other structures of the cord, to the external inguinal ring. In this course, it is straight, and can be at once recognized by its firm, whipcord-like feel, when grasped by the thumb and forefinger.

The nerves supplying the testicle are branches of the spermatic plexus of the sympathetic. They reach the organ along with the spermatic artery. The nerves supplying the cremaster and other structures of the cord are, the subdivisions of the inguinal branch of the ilio-inguinal, and genital branch of the genito-crural.

Varicocele consists of a dilated and excessively tortuous state of the spermatic veins, between the epididymus and the external abdominal ring, where it ends—never, except in rare cases, continuing through the canal. The dilatation may be dependent upon weakness of the coats of the veins, the consequence of previous phlebitis; the deposit of tubercular* matter between the coats; destruction of the valves, more or less complete; the presence of phlebolites, or the simple forcing back of the current by obstruction of any kind.

Although a person might think, after having seen a well marked case of varicocele, that it must be impossible to mistake it for any other disease; nevertheless, surgeons and physicians of considerable eminence have mistaken it, especially for hernia. (Only a few weeks ago, a young man consulted me, wishing to know if there was any radical cure for hernia. On making an examination, I found he was wearing a very elegant truss, that he had a large varicocele, and that his medical attendant had assured him he was ruptured and must wear a truss for the rest of his life.)

* Rokitansky, vol. 4, p. 359, says, "Tuberculosis does not occur either in or on the blood-vessels."

Such being the case, we must look carefully at its diagnostic points :

From hydrocele, by its not being transparent, not fluctuating, and by its disappearing when in the recumbent position, and re-filling on again assuming the erect position.

From hæmatocele, by want of fluctuation, subsidence on lying down, etc., as above.

From all tumors of the testicle, by the last-mentioned sign, and by freedom from pain on pressure.

From hernia, by its beginning from below and extending upwards, stopping at the external inguinal ring, want of impulse on coughing, absence of any sound on auscultation or percussion, and in all of these by the peculiar "bag-of-worms" feeling when manipulated between the finger and thumb. As, however, cases may arise where the veins have suffered from acute or chronic inflammation, matting them together, thickening their coats, and throwing out deposit around them, the surgeon cannot always rely on the peculiar feel of the tumor, but must take the history of the case and the other tests as his guide to diagnosis.

With regard to the treatment of this disease, some surgeons (authors) consider it such a trivial complaint, that they advise it to be left alone; others content themselves by ordering the patient to wear a bag-truss; others add to this, evaporating lotions, astringents—as bathing the parts with cold water, tan-bark water (hemlock or white oak bark), ointments of tannin or gall nuts, etc. Some patients, however, are so annoyed by the extremely pendulous nature of the diseased organ (reaching, as it may, half way down the thigh, thus totally unfitting the sufferer from horseback or other exercises), that something more radical *must* be done. Under these circumstances, operative surgery comes to his relief, and a great number of means have been devised at different times, and by different surgeons, to obtain this end. Some of these I may mention, but it would take up too much of your space for me to describe them all.

1st. Adhesive plaster may be applied, as for orchitis. Tedious and irksome.

2nd. Collodion, or Richardson's colloidal styp-tic. Tedious and irksome.

3rd. A portion of the lower part of the scrotum may be removed by the knife or scissors, the testicle having first been pushed well up and kept out

of the way by an assistant, and the edges of the wound then brought together by sutures.

4th. A longitudinal incision may be made, to expose the veins, and pledgets of lint inserted and left in, until suppuration takes place, and the veins become obliterated by the inflammation. (Surgeon's vade mecum.)

5th. The veins may be divided subcutaneously, and a pad or bandage (or adhesive plaster) applied, as after bleeding.

6th. A truss, as for hernia, may be worn, pressing on the vein, but (if possible) not on the artery. (Curling, as reported in Holmes' System of Surgery, 1st. Ed., vol. 4, p. 14.)

Various other modes of obliterating the enlarged veins have been adopted, and I shall now detail one I have used successfully.

B. G., a gentleman of education, æt. 35, and over five feet in height, having suffered from varicocele of the left spermatic veins, and having tried cold water, astringents, the suspensory bandage, and ultimately a well-fitted truss, without avail, consulted me several months ago, desirous to have some more definite treatment, and willing to undergo any operation. I determined upon ligation of the enlarged veins, two in number. I accordingly adopted the method proposed by M. Ricord. (See Guerin's "Chirurgie Operatoire," and described also in Holmes' "Surgeons of England," 1st Ed., p. 614, by Mr. Curling.)

The vas deferens, known by its situation and whipcord-like nature, and the spermatic artery or arteries, known by their pulsation, having been made out and separated from the veins, and entrusted to an assistant; the veins are then, with the superficial structures, seized by the left hand and pulled gently forward and away from the vas deferens and artery; whilst, with the right hand, is passed a needle, with an eye at its point and set in a handle, armed with a thread of silk or silver-wire, behind the veins. The point having emerged through the scrotum at the opposite side, the loop of ligature is taken up with forceps, and drawn out an inch or more, and the needle withdrawn. The needle being again armed with a thread, is introduced through the opening of exit of the last, and passing between the veins and the skin, is made to emerge at the opening of entrance of the first ligature. The thread being again seized as before, and the needle withdrawn, we have now

a double ligature, both below and above the veins, and a loop at each side. Now pass the free ends of the ligatures through the loops on their respective sides, and by making gentle traction on the free ends, the loops will gradually disappear beneath the skin, and finally constrict the veins. This being accomplished, the ligatures on each side may be made fast, as in a quilled suture (two small corks answering the purpose well). No particular pain or inflammatory action took place. The bowels were regulated by diet, and at the end of fifteen days I drew the ligatures away through the one side, showing that the veins had been divided, and the blood from the testicle had found new channels for its return to the body. The patient has since kept well, and quite relieved from his former annoyance.

Although the operation described has relieved the patient for the time, and, it may be, permanently, it is well to let him wear his suspensory bandage and use cold ablutions during warm weather, and inform him that the same causes which originally produced the disease, may cause its return; for, should it return, it will save the surgeon from blame.

For the following modification of the knot used in securing the veins, I am indebted to my patient.

Take one thread, double it and place it between the middle and ring fingers, with the loop to the back of the hand. A second thread is then placed double between the fore and middle fingers, with the loops to the palm. Now pass the free end of the single thread nearest the tip of the fingers of the upper two through the lower loop, and the free end of the single thread nearest the palm of the under series, upwards through the upper loop, and pull gently on both free ends in opposite directions, and you will find that the middle finger (representing the vein to be ligated) is firmly constricted by a single thread, and that if this thread is slipped off the finger (representing the division of the vein), the two double threads will separate from one another, and can thus be drawn out of the orifices by which they respectively entered.

By adopting this knot, but one strand encircles and constricts the vein, and you are saved the trouble of pulling a knot and the double thread of one side completely across the parts from opening to opening.

In conclusion, I would remark that, fifty years

ago, any interference with a serous membrane was looked upon as excessively hazardous; and my late uncle, Prof. Lizars, of Edinburgh, was spoken of by Liston and Syme as reckless of human life, and deserving punishment for manslaughter, consequent upon his introducing the operation of ovariectomy to the notice of British surgeons.* What is now the verdict of the profession? In the same manner, surgeons at that time had a holy horror of any interference with veins, as by section or ligature, although hardly a day would pass that they did not open one or more to "let blood." Now-a-days, the surgeon does not hesitate a moment about tying a vein during an operation, if deemed necessary, and, according to my own observation, without any particular inconvenience.

Such being the case, I can see no sufficient reason to deter us from giving patients such relief as we can, by operating on cases of varicose veins, even though that relief may be but temporary.

ACCIDENTAL POISONING FROM THREE AND A QUARTER GRAINS OF STRYCHNINE.

UNDER THE CARE OF DRs. CARBERT AND HENRY, ORANGEVILLE, ONT.

(Reported by Dr. Carbert.)

Thinking that an account of the above case, with the treatment pursued, might be interesting to the readers of the CANADA LANCET, I have taken the liberty of sending it for insertion in your valuable journal.

On Sunday morning, August 9th, of the present year, I was sent for about nine o'clock, to see a young man of the name of George Finlayson, of this town, a cooper by trade, who was reported to be dangerously ill. On proceeding to the place, I found the patient sitting by the counter in one of our principal drug stores. There was a collapsed appearance about the case, with constant twitchings and spasm of the muscles. He complained of having lost the use of his legs, and felt a great dizziness, with confusion of ideas. I was informed by the proprietor of the store, that on the previous evening he had mixed some worm-powders for the patient, consisting of thirteen

See Simpson on Ovariectomy.

grains of santonine with some scammony and rhubarb; that he had intended to divide the powder into three, but had ultimately made four doses of it, and that the patient had taken one of them about thirty minutes previously. I learned from Mr. Finlayson himself, that in two or three minutes after swallowing the powder, he felt ill, but had nevertheless taken a few mouthfuls of breakfast afterwards, when, finding himself getting rapidly worse, he got two of his comrades to assist him to the drug store where he had procured the medicine. I at once saw that a serious mistake had occurred, and the druggist—greatly alarmed—candidly informed me that he was afraid he had given strychnine instead of santonine. I immediately had the patient carried up stairs, and proceeded to administer an emetic of thirty grains of zinc sulphas. Some little confusion ensued in getting him up stairs, and it would be from thirty-five to forty minutes from the taking of the powder until the administration of the emetic. Having waited four or five minutes, and no emesis taking place, I gave forty grains more, and procuring some warm coffee, I gave him four or five cupfuls in rapid succession, and soon afterwards a copious vomiting ensued. It was, however, with great difficulty that he could be induced to swallow anything, as every attempt at deglutition produced violent spasms of the muscles of the pharynx. I attempted to administer chloroform by inhalation, but the patient resisted so violently, that I employed two or three persons to rub the upper and lower extremities and the whole length of the spine with it, giving at the same time dram doses internally. A mixture of spts. camph., tinct. valer. and tinct. aconit. was given every five minutes. This treatment was pursued for three hours, with intervals of relief; but, on the whole, the case gradually grew worse. The convulsions and tetanic spasms increased in violence, and I requested a consultation. Dr. Henry, of this place, was called in. This gentleman fully approved of the treatment which had been pursued, and suggested the application of ice to the nape of the neck, which was immediately adopted, although, from the violent convulsions, it was with great difficulty that any application could be made. No relief having been obtained, we gave half a grain of sulphate of morphia, and injected hypodermically into the arm a solution of veratria; but, from the violent actions of the

patient, this was only partially performed. The constant use of chloroform and sulphuric ether had filled the room with the vapour of these drugs, which the patient constantly breathing, had, to a great extent, the same effect as direct inhalation, every attempt at which was violently resisted. Notwithstanding all our efforts, the case grew more desperate—the spasms and convulsions were frightful to behold; trismus set in—the patient became unable to swallow anything; the veins of the head, neck, and face became highly turgid, and a state of insensibility ensued, which lasted for about three hours, although the convulsions hardly ever ceased. During all this time the thorax and neck were rubbed with sulphuric and hydrochloric ether, with what effect, or if with any, cannot be distinctly told. About six hours after swallowing the poison, the convulsions culminated in two of the most frightful and protracted attacks of opisthotonos either of us had ever beheld, and for a moment afterwards we pronounced the patient dead. A deep gurgling in the throat with two or three spasmodic attempts at inspiration, however, convinced us of our mistake, and the patient began slowly to rally. The breathing which was as low as seven per minute began to improve, the trismus relaxed, and partial consciousness returned. The respiration, however, was at this time almost entirely abdominal, the muscles of the trunk being violently contracted, held the chest completely rigid and immovable. The spasms, however, were less violent, the breathing, although sighing and difficult, gradually improved, and after the lapse of nine hours from the taking of the deadly drug we entertained hopes of his recovery. These happily proved correct, for the spasms after having continued altogether twelve hours, ceased, and the exhausted sufferer sank into a comparatively quiet slumber. After an uninterrupted attendance of fourteen hours we retired, exhausted and stupified with the etherous vapours we had so long inhaled. On visiting the patient next morning he was found to be perfectly conscious; there was, however, a considerable amount of cerebral congestion with fever present. Bags filled with ice were kept to the head, and a saline mixture with tinct. aconite administered. The case rapidly improved; the bladder slowly, but gradually, recovered its functions; the bowels after an enema became regular, and on the third day after the accident our citizens

were astonished at seeing the sick man out on the street, complaining only of debility and weakness in the extremities. During the whole attack the condition of the patient's pulse was favourable, generally ranging at 90 and rising occasionally to 125 per minute. During the first part of the attack the muscular contractions were more violent in the lower than in the upper extremities; in the latter part of the case the upper extremities, including the face and neck, were most violently affected. When consciousness had fully returned the face, and especially the nose, was for many hours affected with a violent itching.

The above may be regarded as a plain statement of facts without any attempt at theorising. It is quite possible that more scientific measures might have been adopted in the treatment, but in the hurry and excitement of a violent case, experienced for the first time in a practice of twenty-two years duration, little time is allowed for reflection, and still less for reference to recognized authorities. All that the practitioner can hope to do is to carefully note the symptoms and treat them as they occur. The quantity of strychnine can be accurately estimated. Thirteen grains were weighed out, and having been triturated with the scammony and rhubarb were divided into four powders, each of which must have contained $3\frac{1}{4}$ grains, quite sufficient to cause death, according to all recognized authority. For many hours the case was considered utterly hopeless, and either from the inherent strength of a good constitution, or from the treatment adopted, or perhaps from both combined, life was prolonged until the violence of the poison had exhausted itself.

Correspondence.

DR. KERR'S DYSENTERY REMEDY.

To the Editor of the LANCET.

SIR,—As a good deal has been said lately about Dr. Kerr's various combinations for dysentery, diarrhoea, &c., and as I have now given the medicine a lengthened trial, I beg leave to give the readers of the Lancet the result of my experience. The first case in which I tried the digitalis combination was of diarrhoea occurring after labour, which run into chronic dysentery. I tried all my

remedies, and at last was at my "wits end"—when Dr. Worthington, of Clinton, being called in consultation, proposed Dr. Kerr's digitalis combination, and within one week the patient was completely cured. Without it I feel sure the woman would have died, as nothing seemed to have any permanent effect upon the disease.

My attention had previously been drawn to the medicine by Dr. McLean, of Goderich, who—to use his own words—said it was "the greatest discovery in medicine that had taken place during the present century"—but I had delayed getting it, and it was not until Dr. Worthington recommended it that I resolved to try it.

The next time I used the medicine was in several typhoid fever cases, and I never found anything answer half so well in the diarrhoea attending this disease. It never failed to control hemorrhage from the bowels, and give the patient five or six hours of peaceful sleep, which no other remedy ever did in my hands. After the patients once had a good trial of it, they would take no other remedy, they were so thoroughly satisfied of its efficacy. I would recommend it in such cases with all my heart. I have used it also in the wasting diarrhoea of the last stage of phthisis, and have had the patients asking with tears in their eyes for "that green powder." Here the sleep was quieter and more natural, with less injurious effects on the appetite than any other remedy I could use. The digitalis combination was used in all the above cases, but in the diarrhoea of children I have invariably used the squill combination, uniting it with $\frac{1}{2}$ gr. of opium or more, according to the age of the child. I feel satisfied that it saved the life of my own child, a boy of seventeen months. He was fifty miles from home, along with his mother, when the diarrhoea began, and it was entirely unchecked for eight days. At last his mother got alarmed and started for home, but by this time there was nothing but blood and slime going through him, and the tenesmus was painful to witness. The child had ceased taking nourishment—was fevered and very much weakened. Not having any of Dr. Kerr's medicine on hand, I went to work with my other remedies, carrying out the most approved treatment as recommended by West and other authors—with dieting, bathing, injections, &c., &c.; but all was of no use, it was only checked for a time, and came

on again with renewed vigor. I felt that my little boy was going to go, and I telegraphed to Dr. Kerr, of Galt, for his squill combination, and I began using it in grain doses, with one-twelfth of a grain of opium in each powder, every three or four hours, and from that time forth there was no difficulty, a few days completing the cure. A powder given at bedtime would give him a calm night, free from pain or dysentery, whereas he used to be tossing about, and would have about a dozen motions during the night. The only bad effects I observed in his case was the seeing of unreal objects—the little fellow would point at them playfully, then shrink back, as if attempting to escape from somebody. Since that time I have used the medicine in cases similar to this with equally happy effects. I have also given it without the opium to crying babies, where mothers were dosing them with soothing syrup, and here the result was excellent. In reference to the use of the medicine in the above diseases, Dr. McDonald, of Wingham, holds as high testimony in its favour as I have done.

A short time ago I had two cases of acute dysentery occurring on the same day; one was an old lady of over seventy years of age, and when I first saw her, the stools were nearly pure blood. I used the digitalis combination with opium every three hours so as to suspend the action of the bowels and procure sleep. I then directed them to be stopped until she awoke nicely up, and had another motion, and after that to be guided by the motions. I gave directions of course as to diet, and left. Next day word was sent "that the old lady was getting along so well I need not go out, but I might go out on the following day and decide for myself." I did so, and found her nearly cured, and the stools natural in appearance, though still somewhat loose. I left a few powders, and never saw her again. She was soon after walking around. Another case of acute dysentery occurred in my practice during the night following the day on which the above case occurred, blood nearly pure passing. I treated it the same as above, leaving plenty of the medicine, as the woman—who, by the way, was rather a delicate one—lived ten miles out of town. I never saw her again. She got rapidly cured, and to-day is loud in her praises of "those green powders."

The third combination, intended to meet excep-

tional cases, I have never tried, as the other two combinations always answered my purpose. I merely write to draw the attention of medical men to what—along with Drs. Worthington, McLean, and McDonald—I regard as a valuable discovery in medicine, for which Dr. Kerr, of Galt, deserves all praise. If those who doubt the efficacy of the medicine would only give it a fair trial, they would soon be convinced.

J. CAMPBELL, M.D.

Seaforth, Aug. 1, 1874.

[We have received communications from several medical men all bearing testimony to the efficacy of Dr. Kerr's combination for dysentery. In malarious districts the addition of quinine will be found serviceable.]—ED. LANCET.

COLLEGE OF PHYSICIANS & SURGEONS, NEW YORK.

To the Editor of the LANCET.

SIR,—I would wish to occupy a portion of your available space this month in calling the attention of the profession to a theory of syphilis of somewhat late date and unique character, as expounded by Dr. F. N. Otis, Clinical Professor of Venereal Diseases in this College.

Dr. Otis is of opinion that the specific virus of this disease consists of a cell of infinitesimal size, which cannot be appreciated by the most powerful microscope, which, when applied to an abraded surface, multiplies fissiparously, and forms an indurated mass consisting of myriads of these cells in conjunction with altered connective tissue; and that if left to nature, these cells are taken up by the white corpuscles of the blood by an amoeboid movement, assuming at first a semi-lunar form, the points of the crescent meeting so as to enclose the virus cells. The learned Dr. believes the Hunterian chancre to be purely local for a certain time, and the period of incubation the time not when the poison is increasing in the circulation, but when the virus cells are at their place of deposit, and are merely multiplying until they attain sufficient numbers to cause a local swelling. He also considers the chancroid local, and thinks that the discharge of the chancroid is the result of a true ulcerative process, but the breaking down of true chancre is the result of pressure from the increase of the elements

of the part and distended vessels—death from excess of life, or “necro-biosis,” as he calls it. He likewise affirms that the discharge of true *unirritated* chancre consists of nothing more than exfoliated epithelial cells; but that when irritated by caustics, &c., the pus and virus cells are secreted. He says the tendency of chancre is proliferation; of chancroid, exfoliation, the latter poison being eliminated by its own discharge. He also states that syphilis may occur without chancre; in proof of which he quotes the well known case of Dr. Mott, who, while serving as surgeon during the civil war, amputated the leg of a syphilitic soldier, and was pricked by a spiculum of bone. In 48 hours he had pain in the course of the lymphatic glands to axilla, with swelling and redness, followed in six or eight weeks by roseola, and in four months by sore throat, caries of nose, &c.

Assuming, then, that true chancre is local, what means should be taken to remove effectually the danger of constitutional difficulties?

Dr. Otis answers the question in this way. If the proliferated virus cells are situated on the prepuce or loose areolar tissue surrounding the penis, extirpation by the knife *en masse* is the surest, quickest, and least painful procedure. He operates thus: The patient is anæsthetized, the parts, knife and hands of the operator are bathed in an antiseptic solution, as Condy's fluid or carbolic acid solution, and a number of ligatures are passed beneath the base of the tumor (chancre) at a little distance from the margin. The knife is then passed between the sutures and the tumor, completely removing the same, and leaving a clean, healthy surface. The ligatures are then tightened and tied, bringing the parts into perfect apposition. Union by first intention takes place in 3 or 4 days. He has operated many times, and has not seen secondary symptoms follow where the glands were not involved. I saw Dr. Otis remove a large true chancre in the manner described above; in a week the patient appeared exhibiting no signs of it save a small piece which had not been removed. I leave any remarks on the subject to those more competent to criticise than myself. Should I have misapprehended any of Dr. Otis' remarks (which were not derived from his *brochure* on the subject, but from notes of his lectures on the spot,) he has my apologies and retractions.

G. STERLING RYERSON.

SUPERNUMERARY BREASTS IN A MALE.

To the Editor of the LANCET.

SIR,—Having had occasion to examine a man in this city a few days ago for life-insurance, I was surprised, on examining his chest, to find two well marked mammæ (rudimentary of course) on each side. The normal mammæ were in the usual situation, and presented the ordinary appearance. About one inch and a half below each of the above, and three-quarters of an inch to the inner side, was a secondary or supernumerary mamma perfectly formed and about $\frac{1}{4}$ the size of the normal one. The surface of the chest, with the exception of these parts, was covered with hair, and these naked spots, each with its small projecting nipple, gave the chest a very peculiar appearance. Never having seen anything of the kind before, I was very much impressed with it, and thought it not unworthy of record, and hope you will give it a place in your valuable journal.

Yours &c.,

MEDICUS.

Toronto, Aug. 24, 1874.

Selected Articles.

ARSENIC IN CANCER—AN OLD REMEDY REVIVED.

Dr. Fordyce Barker, (*N. Y. Med. Record*), describes in the following terms, an application for cancer which has been in use for many years—for centuries perhaps:

“I will now describe the plan of treatment as given by Dr. Marsden—the plan which he professes to have derived great success from, not only in a very considerable number of cases of cancer of the breast, but in the treatment of cancer of various parts of the body, and even of cancer of the neck of the uterus. This method of treatment is limited to cases in which the surface of the tumor does not extend over two (2) inches. Care should be taken that the paste is of sufficient consistence so as not to flow beyond the point to which it is applied. The general formula for the preparation of the caustic is to combine arsenious acid and mucilage in such quantities as to make a thick paste, and the formula commonly employed for this purpose is: \mathcal{R} . Arsenious acid, \mathfrak{z} ii; mucilage, \mathfrak{z} i. This paste is spread over the surface of the tumor, and two or three layers of lint spread over that. The lint absorbs all the surplus paste and protects from farther cauterization. The first ap-

plication is left on for twenty-four or forty-eight hours, according to the extent of surface, and then removed by gently soaking it with warm water. After the old paste has been removed in this way, one judges from the impression made with regard to a farther application of the caustic. These applications are to be continued until a line of demarcation entirely surrounding the diseased structure is shown. Then the lint is soaked and removed, and a bread-and-water poultice applied, and changed every few hours. At first there is sometimes considerable inflammatory action set up, but the amount of pain is very inconsiderable as compared with the use of the knife, and the process of cicatrization is equally painless and satisfactory.

The shock to the system, as a rule, is very much less. The constitutional effect of the arsenic in this case was very slight, lasting only a few hours, and then passed away. Indeed, the moderate constitutional effect of arsenic I have long believed to have a certain positiveness in the treatment of cancer, in that it retards the proliferation of cancerous tissue. I mention these cases with the hope that it may contribute something to our knowledge of means by which we may meet this most terrific disease."—*Pacific Med. Journal*

THE SECRETION OF GASTRIC JUICE.

There is something unpleasant in having one's old views and theories exposed as false. We have all been accustomed to believe that the secretion of gastric juice was an intermittent phenomenon, and that it only occurred when the stomach was irritated by some stimulus of a mechanical or chemical nature. Dr. Braun gives an account (in Eckhard's *Baiträge für Anatomie und Physiologie*, Bd. vii.) of some experiments which make it probable that the gastric juice is secreted just like the urine, continuously. He produced gastric fistulæ in dogs, and irritated the mucous membrane of the stomach with sponges, gravel, alkalies, and bits of meat, and he found that the amount of secretion, estimated by removing it with a sponge, was unaltered in each instance, nor was it increased by the presence of the saliva either of dogs or of man. Moreover, no relation was found between the secretion of saliva and of the gastric juice; for a stimulus which increased the amount of saliva did not increase that of the gastric juice, and *vice versa*. According to Braun, the mucous membrane of the stomach is but rarely covered with mucus; usually it secretes a fluid which has an acid reaction. If fluid—for example, a 1 to 2 per cent. solution of urea, or a 1 per cent. solution of common salt—be injected into the femoral vein in large quantities, the gastric juice becomes more abundantly secreted; and that the increased secretion is really

gastric juice is shown by its acid reaction and by its digesting albumen. It sometimes, however, requires the addition of a little hydrochloric acid to give it digestive power, and this fact Dr. Braun compares with that observed by Manassein—namely, that the acid is deficient in the gastric juice of animals which are rendered acutely anæmic. Dr. Braun's experiments are interesting and extremely important if confirmed by other observers but there is the positive evidence of such men as Beaumont and Claude Bernard on the other side, which should make us hesitate in accepting them too eagerly.—*Med. Times & Gazette*.

HYDRATE OF CHLORAL.

BY ALEXANDER G. BURNES, M.B.

This drug is so widely used in the present day as an hypnotic, that it may not be out of place to call attention to some of the cases in which its use is contra-indicated, the more so as several cases have been reported in which its use has been attended with serious or fatal results. The physiological action of chloral is no doubt due to its decomposition into chloroform and formic acid by the alkali of the blood, as stated by Liebreich, and chloroform being thus slowly evolved, the oxidation of the blood is lessened, as well as the evolution of carbonic acid; it is also probable, as has been recently stated, that the chloral may in the system enter into combination with albumen, and thus its decomposition may be retarded in some cases.

Bearing the above in mind, we can easily see how the use of chloral is contra-indicated in many lung affections, especially bronchitis and emphysema, where, by lessening the oxygenation of the blood, it would tend to produce lividity, or even febrile symptoms, with delirium. Dr. Sidney Ringer states that this is especially the case when emphysema and bronchitis are accompanied by obstructed circulation, in which case the effects may last several days.

Dr. Pollak (see *Medical Times and Gazette*, April 11th) also believes chloral to be unsuitable, or even dangerous, in diseases of the lungs and heart.

Chloral is likewise contra-indicated in many cases where there is heart disease, for several cases are on record where the administration of chloral has been followed by sudden faintness, weakness, and irregularities of pulse, great prostration, dyspnoea, and even death, these effects being probably due to the direct action of the chloroform on the heart, and in some states of the system the chloroform may be more quickly evolved than in others: thus, in an experiment conducted by Mr. F. J. Mavor and myself, 4 oz. of chloral dissolved in 40oz. of water was given to a horse, and five minutes afterwards he fell down *insensible*, the pulse increased from 36

to 50, but was feeble, almost imperceptible, pupils fully dilated, muscles relaxed, frequent sighing and complete anaesthesia; the temperature gradually fell from 100° to 99°; while in another experiment the same quantity was given to the same horse dissolved in 10 oz. of water, only producing restlessness, drowsiness, purging, dilation of pupils, and in an hour and a half, delirium, followed by slight sleep.

Chloral is likewise contra-indicated in diseases of the intestinal canal (Dr. Pollak), being liable to cause irritation and purging, especially if given in a too concentrated solution.

It is advisable not to continue with the administration of this drug for a very long period, as cases are known in which mal-nutrition of brain and nerve centres has been induced, with loss of memory and muscular strength, and in some cases imbecility and paralysis.

Lastly, chloral should be used with caution in parturition, as it may in some cases exercise a deleterious effect upon the child, as it is not so rapidly eliminated from the system as chloroform. Further research on this point is required. In conclusion, I may say, this subject is deserving of investigation, considering the reckless manner in which syrup of chloral is used by the laity as an hypnotic in all forms of disease, with, in many cases, serious results; and it is clearly the duty of the medical profession to thoroughly investigate its chemical, physiological, and therapeutic action so as to ascertain in what diseases it may be used with safety. *Medical Times and Gazette.*

TUMOUR OF LATERAL PORTIONS OF THE LOWER JAW REMOVED WITHOUT EXTERNAL WOUND.

BY C. F. MAUNDER, LONDON HOSPITAL.

FIBROUS EPULIS.—F. S., æt. 35, married, was admitted into the London Hospital on May 15, 1873, having been referred to Mr. Maunder by Dr. Dove, of Pinner.

HISTORY.—She stated that about a year and nine months ago, she noticed a decayed molar tooth on the right side of the lower jaw. She removed a portion of it at the time, and not long afterwards observed a growth springing from the situation of the decayed tooth. It gradually extended itself along that side of the jaw. A surgeon removed the tooth which was believed to be the cause of the growth, and afterwards the tumour. In six weeks from the time of removal it appeared again, and was a second time removed. It made its appearance a third time, and gradually increased in size. She has been free from pain throughout. On examination, the growth was found to occupy the original site of the molar teeth. It had very much the

appearance and consistence of gum tissue hypertrophied and indurated. It encroached considerably on the bone below the level of the alveolus, especially on the inner side, was very firmly adherent to it throughout its extent, as though growing from it, and the surface was continuous with the mucous membrane lining both the cheek and the floor of the mouth. Thus only some portion of the outer surface and the mere line of the base of this part of the bone were free from the growth. There was no evidence of glandular affection, and nothing to contra-indicate an operation, although the patient had not a robust appearance.

OPERATION (May 21, 1873).—The patient was seated in a dentist's chair, and the head comfortably and conveniently supported, in order that blood should readily flow out at the mouth rather than pass backwards towards the larynx and pharynx. Chloroform having been administered, the mouth was fixed open by a screw-gag, introduced and held by an assistant at the left commissure of the lips. This gag had also the beneficial effect of depressing the tongue. The operator standing in front, and somewhat to the left of the patient, placed the tip of his left forefinger on the anterior sharp edge of the right ramus immediately above the natural position of the last molar tooth. Along this, as a guide, a scalpel, its edge protected by adhesive plaster to within half an inch of the point, was carried and made to sever the soft parts down to the bone, just enough to admit the raspator. The point of this latter was now passed through the wound made by the scalpel and pushed between the periosteum and bone, so as to separate the former from the latter, first on one side of the ramus and then on the other. In this way, also, the portions of the masseter and internal pterygoid muscles attached to the condemned bone were separated. The cutting forceps, guided by the left forefinger, were next carried to this spot, and by a little care a blade was passed on each side of the ramus, but the bone could not be cut through at this stage. The possibility of this failure had been foreseen and provided against by a small, stout, straight, narrow-bladed saw, blunt at the extremity, but without a button. This instrument, having been placed under the periosteum, upon the outer surface of the ramus, was worked through the mouth, so as to cut a groove in the bone and prepare the way for the cutting forceps, which now with some difficulty completed the section. The next step consisted in making an incision in the soft parts down to the bone and on its outer surface, opposite the position between the first molar and second bicuspid teeth, so as again to admit the raspator. This latter was then run along directly towards the angle of the jaw, to separate the soft parts, and manipulated so as to turn round the base and come up under the floor of the mouth with a similar object. The raspator withdrawn, the forefinger completed the further separation of the inter

nal pterygoid and stylo-maxillary ligament, etc. The anterior surface of the bone was now cleared opposite the original interval between the teeth mentioned, and having been partially severed by the saw used perpendicularly, its section was completed by forceps. It was now found that the means which had been employed to separate the periosteum and muscles from the bone, had likewise nearly separated the growth from the bone, leaving the former almost solely connected with mucous membrane. There remained then only to divide the mucous membrane, reflected on the one side from the cheek, and on the other from the floor of the mouth, and the operation was finished. While the saw was being used the jaw was steadied by the finger and thumb of an assistant grasping it on the cutaneous surface. The bleeding was slight and soon ceased.

22nd.—Slept for a short time during the night; swallows with difficulty; complained of slight pain in the abdominal region, which is tympanitic. Ordered.—The mouth to be often washed out with a tincture of Condyl's fluid and water, one drachm of the former to a pint of the latter. Should the deglutition become more painful, enemata only are to be used, consisting of half a pint of milk and half an ounce of brandy, every four hours. Morning temperature 102·9°, pulse 136, respirations 35; evening, temperature 101·8°, pulse 120, respirations 22.

23rd.—Can swallow a little to-day, but the enemata are being used. Pain in the abdomen is very acute, and on inquiry it was found that a large quantity of air had been pumped into the bowel with the enema. To relieve the excessive tympanites present, Mr. Maunder ordered a large gum-elastic catheter to be passed into the rectum. This soon gave great relief. Morning temperature 100·8°, pulse 116, respirations 22; evening, temperature 101·6°, pulse 122, respirations 20. Ordered.—Continue the wash for mouth, also the enemata.

24th.—Patient says she feels much better; has slept tolerably through the night; deglutition easier; no pain in the abdomen, and the catheter has been removed from the rectum; tympanites gone; can put the tip of her tongue out without pain. There is a free discharge from her mouth of rather an offensive character. Morning temperature 102·8°, pulse 124, respirations 26; evening, temperature 101·4°, pulse 114, respirations 24. Ordered.—The enemata to be discontinued. To take freely of beef-tea and milk. Continue the wash for mouth.

25th.—Complained of a slight pain on the right side of her face; otherwise doing well. Bowels have not been relieved since the operation. Morning temperature 99·4°, pulse 106, respirations 20; evening, temperature 100·4°, pulse 110, respirations 16. Ordered.—an enema of soap and water.

26th.—Pain in the face is worse. She describes it as a continued aching pain located principally in

the right ear and extending down the side of the neck about two inches. Morning temperature 100·6°, pulse 110, respirations 18; evening, temperature 99·8°, pulse 106, respirations 22. Ordered—a hot fomentation of the neck.

27th.—Has had a fair night; pain in the face and neck is much relieved; the discharge from the mouth has still an offensive odour. Partook of some minced meat to-day.

30th.—Patient looks decidedly better; can put her tongue out a little more.

June 10th.—Up to this day, when the patient got up for a short time, she has progressed favourably. She can masticate a little.

11th.—Has had pain on the right side of the face and chin since last night which has been very acute, the latter being swollen and tender to the touch. Morning temperature 100°, pulse 96, respirations 18. Ordered—a hot fomentation.

30th.—Gets up daily; some induration and tenderness still about the chin; scarcely any discharge from the mouth now.

28th.—Goes home to-day, but there is still swelling, induration, and slight tenderness about the right side of the chin.

Here Mr. Turtle's report ends.

POSTSCRIPT (July 25).—To-day Mrs. S. came up from the country to see me, her general health being very much improved. Just under the chin to the right side of the middle line there is a small wound, which had been artificially made a fortnight previously, and also about a fortnight subsequent to her leaving the hospital, to evacuate a small abscess. From this opening, and also from within the mouth, three or four small sequestra had come away, and even then a probe introduced detected a small portion of dead bone. Between this date and October 16, when the wound closed, two or three small fragments of bone came away. Doubtless the fact that the process of exfoliation occupied so long a period is in great measure due to the existence of pregnancy, the patient having been confined on November 21, six months subsequent to operation. The symphysis being unsupported on the right side has a tendency to that direction, and consequently, excepting during mastication, the teeth in the two jaws do not accurately correspond; still she masticates well.—*Medical Times and Gazette.*

ENEMATA OF CHLORAL IN THE VOMITING OF PREGNANCY.—Dr. Simmons, of the Yokohama Hospital, Japan, relates four cases in which chloral administered by the rectum in thirty-grain doses, in mucilage, proved of speedy efficacy. In future cases he intends commencing with larger doses, and he believes that the remedy so employed will be found useful in most cases of nervous or sympathetic vomiting, where there is no inflammation present.—*New York Med. Record*, June 1.

THE SUMMER BOWEL AFFECTIONS OF CHILDREN.

At the last meeting of the Chicago Society of Physicians and Surgeons, a very interesting discussion was held regarding the summer bowel affections of children, a full report of which appears in the proceedings of the Society as given in the present number of the *Examiner*. The subject is especially *apropos* at this season, when this class of affections is so prevalent in all our larger cities.

In a late correspondence received from Dr. B. S. Woodworth, of Fort Wayne, Ind., he states his belief in the essentially malarious origin of cholera infantum and the kindred bowel affections of children. Quinine in combination with opiates he has found most efficient in controlling these cases. He usually combines them as in the following formula:

R—Quinæ sulph., grs. xxv.
Tannin, grs. x.
Tinct. opii, grs. xx.
Ess. menth. pipit., gttss. xx.
Syr. simpl., ℥ii.—M.

From half a teaspoonful to a teaspoonful, according to age, to be given every two hours until vomiting and purging cease.

Dr. Woodworth has had a large experience in the observation and treatment of children's diseases for the past twenty-five years, and his evidence, given as the result of long experience, is therefore of especial value.

These bowel affections of children and the accompanying symptoms which they occasion, undoubtedly vary, however, materially in the type and character which they assume in different localities and in different seasons in the same locality. In the eastern and sea-board cities the malarial element will be found much less evident and frequently manifest than in our southern and western cities. When the distinct exacerbations of fever, and the generally intermitting character of all the phenomena indicate the presence of a malarial element in the disease, quinine is, of course, indicated. In cases of cholera infantum, however, when vomiting and purging are at all active, we have scarcely ever been able to administer the quinine in any form that would be retained upon the stomach. We more frequently, therefore, substitute for it, in such cases, small doses of phloridzine combined as in the following formula:—

R—Phloridzinæ, grs. xxiv.
Spts. ammon. arom., ℥i.
Tinct. opii camph., ℥i.
Syr. simpl., ℥ss.
Aquæ, ℥iiss.—M.

Dose for a child one year old, half a teaspoonful repeated every two or three hours.

This forms a mixture rather agreeable to the taste and acceptable to the stomach, while combining a diffusible stimulant with the anti-periodic and anodyne influences.—*F. H. Davis, in the Chicago Med. Examiner.*

EXCISION OF THE ANTERIOR TARSUS AND BASE OF THE METATARSUS.—A NEW OPERATION.

(*The Edinburgh Medical Journal*, May, 1874).
—Dr. P. H. Watson reports the case of a lad, æt. 19, who suffered from disease of the anterior portion of the tarsus. It was spontaneous in its origin, subacute in its progress, involving the articulations chiefly upon the inner side of the foot between the cuneiform bones and the metatarsal bones. The pain was so much that he was unable to work or walk. Under rest, blistering, and constitutional treatment he improved until the plaster of Paris could be applied, but after a lapse of a few months the original symptoms returned with increased severity. No collective abscess had formed in the soft parts, but there seemed no reasonable doubt that suppuration had already commenced within the bones and joints involved. To amputate the foot seemed too severe a measure to be justified under the circumstances, and as it was obvious that all the disease was confined between the base of the metatarsus in front and the astragalus and os calcis behind, and that the excision of the scaphoid, cuboid, and cuneiform bones and bases of the metatarsal bones would secure the fulfilment of every requisite for sound recovery, the following operation was performed. After the application of the tourniquet to the lower part of the thigh, incisions between three and four inches in length were made in the outer and inner side of the foot, that upon the outer side extending from the outer margin of the plantar surface of the os calcis as far as the middle of the metatarsal bone of the little toe, that upon the inner side from the neck of the astragalus to the middle of the re-established bone of the great toe. The soft parts were then carefully dissected off both surfaces and sides of the tarsus until the whole extent of osseous tissue to be removed was deprived of its soft coverings. A curved probe-pointed bistoury inserted between the soft parts and bones was then carried across the line of articulation between the astragalus and scaphoid and os calcis and cuboid bones, first upon the dorsal and then upon the plantar surface, so as to open up these joints. A key-hole saw was now introduced between the plantar soft parts and the shafts of the metatarsal bones, which were then cut through, one handle of a pair of bone-forceps being inserted between the metatarsus and the dorsal soft parts to protect the latter from injury by the teeth of the saw cutting from below upwards.

After the operation the entire wound was plugged firmly with pledgets of lint closely crowded together. This dressing was retained for forty-eight hours, and subsequently the wound was filled from day to day with pads of lint, with a view of securing consolidation from all surfaces equally, and of preventing the bagging of matter.

The result in this and four other similar cases was entirely favorable,—the patient's walk having none of the stumping gait of an amputation.—*Phil. Med. Times.*

ELECTRICITY IN POST-PARTUM HÆMORRHAGE.

Dr. Charles W. Earle, relates (*Medical Examiner*, "London Medical Record,") a case of *post-partum* hæmorrhage, in which after other measures had failed, he successfully resorted to electricity.

The subject of it commenced to experience labor-pains on December 9th, but the uterus seemed unable to effect the expulsion of the foetus, and after waiting about twenty hours she was readily delivered with instruments. Without moving her, Dr. Earle says, he "sat down by the bedside to watch the condition of the uterus for one hour before putting on the binder and take my departure. There had been such inertia of the womb during the entire labour, that I was fearful of what my patient very soon experienced."

"Without any premonition whatever, the uterus ceased its contraction, and a stream of blood, apparently as large as half my arm, came pouring from the vagina.

"I immediately introduced my right hand to the fundus of the womb, and with my left, tried to compress the descending aorta, giving orders at the same time to the attendants to administer more ergot, lower the patient's head, apply cold water to the abdomen, and procure a piece of ice, for inserting into the uterus. All this was done rapidly, and in much better order than is usual in such cases. But what a change there was in my patient! In two minutes she had changed from a most favourable condition—indeed, from a joyous and happy one—to an exsanguine, bloodless, and pulseless state; apparently, she was moribund.

"In addition to what I had already done, I gave what stimulants could be found in the house; and keeping my hands in the position noticed above, as the most effective way of stopping the largest amount of blood, sent immediately for Dr. I. N. Danforth, who lived in the immediate vicinity. He came forthwith, and relieved me from my most fatiguing position, suggested port wine and carbonate of ammonia as the stimulant. Ergot had been given freely; ice, externally and internally, had been used; compression resorted to; stimulants and nourishing broths administered; but the

hæmorrhage did not cease. Nothing up to this time, had produced a good, strong, continuous contraction of the uterus. Dr. Danforth now advised electricity; and in a very few minutes a battery was at hand; and placing one pole over the sacrum, and the other over the uterus, the current was commenced.

"The effect was instantaneous and almost marvellous.

"The uterus contracted firmly; the hæmorrhage ceased immediately; and as long as the electrical current was continued, the uterine current remained hard, and of proper size.

"It was necessary, however, to keep up the current for some time; for as soon as we ceased using the electricity, the womb softened, and blood commenced to flow. It was about twelve hours before we ceased using the instrument altogether. At that time the adynamic condition of the entire system, and uterus especially, seemed to be overcome, and we felt safe in leaving our patient.

"The lady was saved, and made a very comfortable convalescence. Electricity certainly contributed largely to the favourable result."

ON THE EMPLOYMENT OF TRUSSES IN VARICOCELE.

At a recent meeting of the Hufeland Society of Berlin; Dr. Ravoth read a paper (printed in the *Berlin Klin. Woch.*, May 11), upon the plan of treating varicocele by means of hernial trusses, which he has pursued for several years with great success. Twenty-eight cases so treated form the basis of the present communication.

Varicocele, as is well known, almost always occurs on the left side, and in the great majority of cases dates from the period of puberty—most cases, in fact, being made known during the examination of youths as recruits. It is very rare for it to appear after the twentieth year, and it usually undergoes any considerable increase after this time only in consequence of some irritation of the sexual apparatus. How little the venous stasis produced by hernia and trusses has to do with the production of the affection may be judged by the fact that in nearly fifteen hundred left inguinal hernias, which have come under the author's notice, he has never once met with a case of varicocele. Indeed, as among so many cases there must have been some instances of co-existing varicocele, these have, in fact, been cured by the application of the truss employed for the hernia. The chief casual condition in the production of varicocele is irritation of the sexual apparatus; but whether this is to be explained by an augmented accession of blood, with relaxation of the cremaster and the dartos, inducing dilatation of the spermatic veins, or by an enfeebled state of the trophic nerves, further investigation must decide.

As a practical fact, it is to be observed that the application of the hernial bandage will ameliorate all cases of varicocele; and when these are recent or have become increased by accidental irritation it will cure them. During treatment the truss should be kept on permanently, except at night. During two or three hours daily, the compression of the pad is augmented by means of a supplementary spring. In two cases narrated the cure was effected in two or three months respectively. Under compression the varicocele immediately diminishes in size, and any pain that may be present disappears. The testis is also brought nearer the abdominal ring in consequence of the stimulation imparted to the cremaster.

Dr. Ravoth is of opinion that this mode of treatment may be advantageously applied for the relief of the varicose state of the lower extremity so frequently met with. Here, however, for prompt results, recent cases must be dealt with, as those which have lasted for years, and are attended with great thickening of the walls of the veins and degeneration of the surrounding connective tissue, can only be very slowly ameliorated. The pad should be applied to the femoral vein beneath Poupart's ligament, and especially where the saphena vein enters it. Dr. Ravoth is also in great hopes of soon showing that this mode of treatment may be employed very advantageously in treating cases of onanism and pollution. These cases, of course, require a great deal of individualising and adaptation of treatment owing to their complicated character. *Medical Times and Gazette.*

PROFESSOR ESMARCH ON THE BLOOD-LESS METHOD.

[Professor Esmarch has published a paper, which contains his latest views; we lay it in an abridged form before our readers.]

He observes that since he first brought the subject before the Congress he has had the opportunity of trying his method in 200 additional cases, and that he now entertains a much higher opinion of its utility than he did then. Not wishing to weary his audience with mere statistical details, he yet feels desirous of pointing out the influence which he believes the method exerts in diminishing the mortality of large operations. Thus, of thirteen amputations of the thigh he has only lost one, and the same with respect to eleven amputations of the leg, while four of the upper arm all recovered—so that in twenty-eight of the greater amputations there occurred only two deaths. An amputation of the shoulder succeeded, but one of the hip-joint, which from the first was almost hopeless, failed, and of eight excisions of the large joints (three of the hip, three of the knee, and two of the elbow) only one terminated fatally. These are favourable results

that cannot readily be surpassed. His clinical wards are contiguous to the medical wards, and both have long been overcrowded, and erysipelas, diphtheria, and pyæmia have been often met with. He is under the conviction that the more favourable results of the present year are due to the adoption of the bloodless method. This presents the following advantages:—

1. The small loss of blood which takes place. Everyone is aware how convalescence is retarded and endangered when the loss of blood has been large. The production of acute anæmia here is the great danger. The coagulability of the blood augments in many cases with the impoverishment of the red globules, and with this increases the danger of thrombosis and pyæmia.

2. Sponges need not be brought in contact with the unbleeding surfaces. Although he has always been very careful not to use sponges that have not been thoroughly cleaned and disinfected, yet Dr. Esmarch has still suspected that they have still had something to do with transporting contagious material, and especially the poison of erysipelas.

3. The large arteries and veins are not subjected (as they are when the tourniquet or digital compression is employed) to violent local pressure. They are equally compressed on every side by the entire mass of the soft parts being enclosed in the ligature.

Disadvantages of the method Prof. Esmarch has not met with himself, and, especially, he has not seen paralysis as a consequence of the ligature; and he believes that when this has taken place in the hands of others, it has arisen from too powerful an application of the caoutchouc tubing. Indeed, he has had to prevent his own assistants committing this error. All kinds of caoutchouc are not suitable, and he prefers the brown, non-vulcanised, and tubes or rollers made of the red caoutchouc; and in general no great force is required to completely prevent the afflux of arterial blood. The first turn should especially not be too forcible, as each succeeding one considerably increases its effect. Anyone may be easily convinced of this by passing a fine caoutchouc bandage several times around the same part of a finger. He has never met with gangrene of the flaps reported by some surgeons, and thinks this has been dependent on other causes.

Additional advantages of the method are referred to. Thus, as a consequence of the local ischæmia and compression of the nerves, a local anæsthesia is induced, rendering operations but slightly painful. In the out-patient establishment at Kiel it is almost always resorted to for small amputations, incisions, removal of nails, etc. Generally the anæsthesia does not occur until some minutes after the application, but if Richardson's spray-douche be used it is quickly induced, as the freezing is infinitely more quickly brought about when the arteries no longer bring additional caloric with the blood.

The method allows of a thorough examination being made of diseased parts, especially in the bones and joints. On many occasions Prof. Esmarch has examined these as deliberately as in the dissecting-room before he decided whether he would perform excision or amputation. He has thus frequently been able to assure himself of the various alterations on the living body, and has submitted portions to the microscope before he would decide on operating. The same assistance is derived in the removal of small foreign bodies, such as needles, glass splinters, etc., which have become embedded in the hands or feet; and everyone knows how a constant stream of blood aggravates the difficulties in these cases, leading in some cases to the abandonment of the attempts. Now, if the situation of the body be but known, it is removed with the greatest ease, and the slight wound necessary for this usually heals by the first intention. Of the great facility with which the ends of wounded arteries may now be found, Leisrunk and Stokes have published remarkable examples.

Another advantage greatly to be prized is the fact that many of the great operations can be performed without any skilled assistance whatever—a fact of importance not only in military surgery and for surgeons when alone on board ship, but still more so for practitioners in the country and in small towns. Many are the thankful communications on this head which the Professor has received from his pupils scattered about in country parts. One of them not having the apparatus with him, employed a linen binder and his elastic braces during the easy extraction of a splinter of glass, which was embedded in the arm. It is very desirable that officers and soldiers going into battle should have elastic braces capable of being used in the arrest of hæmorrhage on emergency. Professor Muller, of Wurzburg, suggests that in a woman dying of hæmorrhage the ligature might be applied to the four extremities so as to force the blood towards the trunk and head, thus warding off collapse and giving time for transfusion, or enabling us to dispense with this.

By means of the ligature, which may be applied at any part of the extremities, lay persons are in the position of being able to control accidental hæmorrhage, no knowledge of the places of the arteries being required, as for the application of the tourniquet. As Professor Langenbeck has remarked, in most cases an elastic bandage will answer the purpose as well as the caoutchouc tube, while its pressure is gentler and more uniform; but still there are cases in which the tube cannot be thus superseded owing to its smaller size. Prof. Esmarch cannot agree with those who think that his method is not suitable in operations upon the shoulder and hip-joint, having himself employed it in several of these with complete success. In operations upon the shoulder, blood may be prevented passing through the axillary artery by carrying the tube

under the axilla, drawing it tight over the shoulder, and keeping it in a state of tension by a strong fist supported by the clavicle. Or both ends may be held together by a clamp, like that used for fixing the pedicle in ovariectomy. Bringing the tube across the chest and back to the opposite axilla, as was at first done, is objectionable, on account of the interference with respiration that is produced. In amputations at the upper part of the thigh the tube may be passed firmly once or twice around the limb just under the bend of the thigh, crossing the ends over the inguinal region and carrying them around the posterior surface of the pelvis and uniting them over the lower part of the abdomen. Or a binder may be firmly rolled up and applied as a pad over the external iliac above Poupard's ligament, and compressed by several turns of a strong caoutchouc bandage. In operations upon the hip-joint itself, however, such a bandage would be in the way, and we must then compress the aorta in the umbilical region. This can be done by means of a pad formed of a linen bandage eight metres long and six centimetres broad. This is wound around the middle of a wooden staff the thickness of the thumb, and a foot in length, which enables the pad to be retained in its right position. The pad is applied immediately under the umbilicus, and is compressed powerfully against the spinal column by five or six turns of a caoutchouc bandage six centimetres in breadth. By this means the flow of arterial blood through the aorta can be completely arrested, provided care has been taken beforehand to empty the intestinal canal by means of purgatives and enemata. In some cases it is preferable to employ a pediculated pad, which allows of its being pressed deeper into the abdomen. Prof. Esmarch has had a slit made in the steel pedicle of his pad (*pelote*), through which the turns of the caoutchouc binder can be easily passed. Several persons have recommended raising the limb for some minutes prior to the operation before applying the compressor, but this is by no means of the same utility as the methodical application of an elastic bandage. The only cases in which the raising of the limb is of advantage are those in which the presence of foul secretions renders it unadvisable to force them by the bandage into the cellular tissue and lymphatic system. It is very desirable, in cases in which there are open wounds, ulcers, or fistulæ of the extremities, that these should not only be covered with varnished paper, etc., but that pure caoutchouc bandages only should be employed, because these are much easier cleaned than are those in which silk or cotton enter into the composition.—*Medical Times and Gazette*.

The man who sees too widely is nearly sure to be indecisive, or to appear so. Hence, also, comes an appearance, sometimes of shuffling, and sometimes of over-subtlety, which is very harmful to a man.—ARTHUR HELPS.

THE USE OF LARGE ENEMATA. (*The London Medical Record*, May 6, 1874).—The practical results of the recent discussion in the German medical papers on the use of large enemata seem to be as follows :

1. Enemata, if sufficiently copious, will reach the small intestine, the ileo-cæcal valve notwithstanding, provided there be sufficient propelling force, whether that be gained by a long column of fluid in the apparatus (as in the use of irrigators), or by the patient's position, with the pelvis elevated, favoring the descent of the fluid, or by repeated action of the injecting instrument.

2. Experiments have shown that it is neither necessary to use complex apparatus, nor to put the patient into awkward and perhaps dangerous positions ; since from three to five feet of pipe, with a funnel at one end and a suitable nozzle at the other, is all the apparatus we need ; and the patient simply lies upon the back, the only pressure required being that of the column of fluid.

The real pressure we have to overcome is that of the patient's muscles,—aided in some cases by tense gases in the bowel ; for if any one will insert a tube into the rectum before the injection has come away, he will see the fluid come out in jets or spirts, when the patient strains, and less markedly so at every descent of the diaphragm.

3. The safety and efficiency, or the benign action, of large enemata of water, guel, and the like, are very striking ; but we are strongly inclined, however, to believe that a very small quantity of soap, or of some neutral salt, is even less irritating to the mucous membrane than pure water alone.

To sum up all, large injections do reach the whole length of the large intestine and beyond it ; they are safe and speedy remedies for fæcal accumulations, for some form of intestinal obstruction (notably intussusception) and internal herniæ ; for the treatment of intestinal ulcers, of hæmorrhage from the bowels, and diarrhoea ; for worms, especially oxyurides, and their congeners ; as a means of stimulating and increasing the secretion of bile, and of introducing into the small intestine nutritious matters in a state easily susceptible of absorption.—*Ibid.*

ANEURISM MISTAKEN FOR ASTHMA.—The proceedings of the San Francisco Medical Society refer to a case of death from aneurism, which was reported as "Asma," by an ignoramus with a bogus diploma, or with no diploma at all. Similar cases, however, have occurred under the charge of regular and experienced physicians, who have failed to trace the asthmatic condition to its true source. It is only by post-mortem examination, that the true nature of the lesion has been ascertained. We are confident that many of the deaths attributed in past years to asthma, would have been proved to result from aneurism, had an examination been made.—*Pacific Medical Journal.*

APTHOUS STOMATITIS COMMUNICATED TO MAN THROUGH THE MILK OF A COW AFFECTED WITH THE SAME DISEASE.—The symptoms commenced in less than half an hour after the ingestion of the milk. They consisted in vertigo, tingling in the ears, feebleness, afterward delirium and hallucinations. On the second day, vomiting and diarrhoea with abdominal pains set in, which promptly yielded to treatment by opium and subnitrate of bismuth. The fever, however, was not broken, and on the third day stomatitis appeared, with pyalism and the development of aphthæ on the inner surface of the lips and cheeks, on the palate, and the inferior surface and borders of the tongue. At the same time, there appeared a phlyctenular eruption on the hands, feet, perinæum, and scrotum. The nervous disturbances, delirium, and insomnia, were combated by opium, given in doses of fifteen centigrammes per diem, and the stomatitis by gargles of chlorate of potash. At the end of fifteen days, the patient recovered. A remarkable detail of this observation, made by Dr. Van Varys, is that the wife and children of the patient had drunk milk from the same cow, and were not affected. At that period, an epidemic of apthous stomatitis reigned among the horned cattle in the country, and the milk of these animals was used, notwithstanding its virulent properties. The difference in the results Dr. Van Varys attributes to the fact that the milk drunk by the patient's family had previously been boiled. Experiments made by a veterinary surgeon of Nievre have demonstrated that milk subjected to a temperature of more than 80° loses its virus. *New York Med. Journal.*

PUERPERAL MANIA ; TREATMENT BY CHLORAL AND BROMIDE OF POTASSIUM.—The patient, aged thirty years, had been suffering severe anxiety, previous to and during labor, from some domestic trouble. The position was transverse, and delivery accomplished by version. Following the labor were severe after-pains, for which morphia was administered. That night the pulse ran up to 130 per minute, the temperature to 102½°, and with this fever marked delirium set in. The delirium continued for two nights and one day, when the treatment, which had been morphia with veratrum viride, was changed to bromide of potassium, with hydrate of chloral. Two hours after the latter remedies had been administered, the patient slept, and on awaking was perfectly rational. This improvement continued.—*N. Y. Med. Journal.*

Medical Items and News.

Statistics show Philadelphia to be one of the very healthiest of great cities. Its salubrity surpasses London which is the healthiest of European capitals. It is far healthier than New York, which might indeed be inferred from its greater area to the population, and the more comfortable housing of its inhabitants.

POPLITEAL ANEURISM CURED BY FORCIBLE FLEXION. (*The Lancet*, May 30, 1874).—Mr. Benfield reports the case of a man, æt. 38, of good general health, who was troubled with a small pulsating tumor in the left popliteal space. A distinct bruit was heard on applying the stethoscope, and firm pressure on the artery above the tumor arrested at once both the bruit and the pulsation. Treatment by flexion was resolved upon.

A flannel roller was applied to the leg, which was now flexed upon the thigh, and the latter upon the abdomen. The leg and thigh were firmly bandaged together so as to maintain forcible flexion, and heavy sand-bags were also employed to keep the patient from rolling out of position. This procedure occasioned very great pain, and a quarter of a grain of morphia was given subcutaneously for its relief. About six hours from commencement of flexion, the patient could bear the pain no longer, and the bandage was removed and the leg gently straightened. No pulsation or bruit was now discernible. Patient complained of being chilly, and the foot of the affected limb was decidedly colder than its fellow. The limb was encased in cotton-wool, a pad of lint placed in the popliteal space, and a flannel bandage applied. It was then placed straight on a pillow.

The aneurism was now practically cured, but for the sake of safety the pad and bandage, together with rest in bed, were maintained for ten days. The man was then allowed to get up and take exercise, which occasioned no pain or inconvenience. He was thus kept under observation for about three weeks, when he was discharged cured.—*Ibid.*

TREATMENT OF ROUND WORM.—In the *Journal* of May 23rd, several cases of round-worms are reported. A peculiar case came under my care as an out-patient at the Bristol General Hospital in February last. The patient, a child aged one year and eight months, had been suffering for three weeks with a very irritable state of the bowels, so much so that it could not be kept clean; and during an evacuation a round worm was passed. The child looked pale and ill; it had been fed with the ordinary diet of the house and pork. A mixture of a grain of santonine and syrup was ordered to be taken three times a day. On the next visit (four days), the child had voided forty-six round-worms. It seemed more cheerful, and was to continue the mixture. At the next visit, fifteen more had passed making in all sixty-two worms. Afterwards the child improved rapidly.—(*Dr. Clark in the Brit. Med. Journal.*)

DELIRIUM TREMENS.—The standard prescription for this condition at the Roosevelt Hospital New York is:

R.—Chloral Hydrat., grs. xxx.
Potass Brom. grs. xl.

To be given at bed time and continued through the day in smaller doses if necessary

ON FRACTURE OF THE BASE OF THE SKULL.—Mr. Foster, of Guy's Hospital, in a clinic reported in the *London Medical Times and Gazette*, discusses the question of the respective value of the symptoms usually considered characteristic of fracture of the base of the skull. They may, Mr. Foster thinks, be placed thus in their order of relative importance: Escape of clear fluid from the ear; subconjunctival ecchymosis, if the fracture be in the orbital plate of the frontal bone; greater or less disturbance of the mental functions, generally on the side of diminution rather than excess of function; pressure symptoms, such as paralysis; bleeding from the ear; deafness

Of these, only the first is unfailing. If there is no mistake about it, the diagnosis is certain; but care should be taken that a serous fluid is not called cerebro-spinal.

The value of any one of the others will vary according as it is very marked or is associated with one or all of the remaining symptoms.

Considering the question of fatality in fractures of the base of the cranium, it is said:—A patient having all of a set of symptoms will die, one with less will get well; and between these extremes there is no mean. There is no peculiarity about the nature of the fracture; but the patients die in nine cases out of ten, firstly, because the brain is so bruised that it is incapable of keeping up the requisite functions; secondly, because inflammation extends to the membranes of the brain. It is probably quite possible to fracture the skull without injuring the brain, provided no great amount of concussion be imparted to that organ by the injury, just as a steam-hammer will crush a nut without injuring the kernel. Thus, the skull being alone fractured, we might expect bleeding from the ear, and even cerebro-spinal fluid, without any brain symptoms, at any rate during the early days following the injury. If, after fracture of the cranial bones, much new bone for repair was formed, secondary dangers from surface inflammation, and irritation might follow; but the fact is, hardly any new bone is produced in the skull, except a slight surface bony casing along the line of fracture, and a bone cement between the two adjacent fracture-edges. If, then, we get a fracture of the base without brain-bruising, we may reasonably expect such a case to get well with no further symptoms. It is quite possible that a certain proportion of cases of hemorrhage from the ear are of this kind.

In the treatment of these cases of fracture of the base, we ought to bear in mind the length of time the skull takes for the repair of its fractures; thus in one case there was evidence of union at one spot only, ninety one days after a severe fracture of the base of the skull. This should lead us to be slow in departing from the low-diet treatment which should always be prescribed in such cases; and we ought to be very careful to forbid much exercise for some time after the patients are apparently quite well.—(*Med & Surg Reporter, Phil.*)

"Except the medicines whose effects are established by strict observation, such as the evacuants, diuretics, sialogogues, &c., &c., and to what does our knowledge of the rest amount? Into what errors in the use and denomination of medicines have we not been led? When the theory of obstruction was in vogue, deobstruents were created. Incisives sprung up when the theory of the thickening of the blood became the favourite idea. The expressions *dilutants* and alterants, and the ideas which were attached to them, arose at the same epoch. When it was necessary to obtend acidity, inviscants, incrassants, &c., were created. Identical means have often had different names, according to the manner in which they were supposed to act, deobstruant with one, relaxant with another, refrigerant with a third, the same medicament has been employed in turn, with different and even opposite views, so true is it that the human mind marches at hazard where the vagueness of mere opinion guides it."—*Bichat Anatomie Generale*.

CHLORHYDRATE OF TRIMETHYLAMIN IN RHEUMATIC FEVER.—A new successful instance of the above has been communicated to the Therapeutical Society of Paris by Dr. Martineau. When called to the patient he found that the elbow had, since the morning, become red, enlarged, and painful; skin hot; pulse 90. Ten grains of the drug were administered. The next day a great improvement was noted. The pain in the elbow had entirely disappeared, and the pulse had fallen from 90 to 65. No crisis or cardiac complication had occurred. The same treatment had been equally successful in a similar attack a year previously.

Dr. John Friend wrote the History of Medicine during his confinement in the Tower in 1675. Friend, like most others of his day, was generally mellow after dinner. He was once sent for in this state to a family of consequence; but the family not chosing to trust to his prescription, sent for Dr. Mead, who came, and, after looking at what Friend had written, took the opportunity of paying him a very high compliment. "Pon my word," said Mead, "if Dr. Friend wrote this when he was drunk, he prescribes better than I can do when sober."—*Pettigrew's Biography*.

"The son of Henry I., King of England, having been attacked with small-pox, his physician, a skillful man, if there ever was one, ordered with all convenient ceremony that the young prince be enveloped in scarlet, that every thing about him be red, the hangings of his chamber and the clothes of his servants. This arrangement cured him so well, says John of Gaddesden, that not a single trace of the disease was left on his face. We see that John of Gaddesden had a presentiment of Homeopathy."—*Friend's History of Medicine*.

ABORTIVE TREATMENT OF BOILS.—The *Cincinnati Lancet and Observer* has a note from Dr. C. B. Hall, stating that the following, applied to boils with a camel-hair pencil or feather, gives great relief in a very short time: Tincture of arnica flowers, 1 drachm; tannic acid, half a drachm; powdered acacia, half a drachm. The inflamed surface, and a little beyond all around, should be painted with the medicine every fifteen minutes, or as fast as it dries, till a good thick coating covers the part. The throbbing, tensive pain, and the intense tenderness will be promptly relieved; the redness will subside; the smooth, shining integument will shrink and become wrinkled, and comfort will succeed torment. If the boil be in the first stage, it will disappear without sloughing. If sloughs have already formed, it will be quickly separated, and the cure will be soon complete. The preparation should be used as soon as prepared.

TREATMENT OF ZONA BY COLLODION AND MORPHIA.—Dr. Bourdon, Hôpital la Charité, after having tried a great many local means for treating the above disease, and checking the intense pain, has definitively adopted the following plan:—Without opening the vesicles he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains. The mixture must be put on pretty thickly. The pain ceases from the second day, and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness.

APPLICATION FOR BURNS.—M. Lebigot recommends the following mixture as having been very successful:—Cape aloes, four ounces; water, ten ounces; alcohol (90°), three ounces. The ingredients are to be melted together in a china plate over a slow fire, allowed to cool, and then filtered; after which three more ounces of alcohol are to be added. It is then ready for use. A tablespoonful of the mixture mixed with a teaspoonful of acetate of lead and twenty tablespoonfuls of water constitutes an excellent remedy. It is to be applied morning and evening on the burnt parts.—*Lancet*.

ACUTE ARTICULAR RHEUMATISM.—At the Charity Hospital, New York, the following is in use as a local application:—

R.—Tinct. opii, ʒi.;
Spiritus chloroformi, ʒiiss.;
Linimenti saponis, ad Oi.—M.

This liniment is applied freely to the joints and immediately covered with cotton and oiled silk. The relief from pain afforded by this application has been gratifying.—*New York Medical Record*.

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THE REVIVAL OF THERAPEUTICS.

If we were required to name the prominent characteristics of medical thought, at the present time, we should answer that it is characterized by faith and earnestness. In this respect it is diametrically opposed to the leanings of certain men of position in the medical world, some fifteen or twenty years ago, who, hampered by the traditions of the past, and staggered by the discoveries of modern pathological investigation, as yet imperfect and incomplete, were disposed to sceptical views in medicine, and gave way to the idea of nihilism, and suggested or followed an expectant plan of treatment. Of late years great progress has been made in medical discovery; some remarkably efficient new remedies have been introduced, and their employment, guided by the teachings of a more exact pathology and by keen clinical observation, has led to almost specific results. The natural tendency of this has been to infuse fresh faith in the efficacy of drug medication, and there arises the belief with each succeeding improvement or new medical acquisition, that our art will, by-and-by, become so perfect and well defined, that the educated physician's control over disease will be almost magical.

Ten or twenty years ago the chief line of medical investigation was pathology. The fascination of this study still holds ground; and a vast accumulation of facts and knowledge, the result of the pathological work of our time, has served to place the practice of medicine and surgery on a more thoroughly scientific foundation. Now, however, there is to be noticed a strong tendency towards therapeutics. This branch, too much neglected

by the pathologists, now comes back to be held in something like the same importance it had in the early days of medicine, as was needs the case when practice was solely based upon empiricism.

The profession has reaped an immediate benefit from the revival of therapeutical research, and great things are undoubtedly in store from the keener prosecution of this line of discovery. Chemical science is as yet far too incomplete not to suppose that new compounds as yet unthought of, will, by-and-by, be placed at the command of the therapist, wherewith he shall be able to work as magically as with chloroform, methylene bichloride, chloral hydrate and the other wonderful additions to the materia medica which the progress of chemical discovery has of late years made available. Physical science, too, is yielding service in the cause of therapeutics. No one acquainted with the condition of electrical science as applied to medicine fifteen or twenty years ago, and with the condition of the same science now, and its latest applications, but will be able to survey a wide field of discovery, improvement and useful adaptation of knowledge. Not only have inventors devised and constructed new forms of batteries of a convenience and kind adapted specially to the uses of the medical practitioner, whereby progress in therapeutical observation has been aided and success in the employment of electro-therapeutics made more certain; but by the activity of co-operation, facts have been discovered with regard to the employment of different kinds of electricity of the highest importance and usefulness. We need only refer to the peculiar properties ascertained to reside in the constant current, and in induced and statical electricity, to point out the specific results that have been arrived at. And yet all this is confessedly such a novelty that we may not only look for a wider diffusion of this species of applied science, but await still further discoveries in the same incompletely explored field.

As regards the materia medica, progress takes two lines,—one in the direction of adding new medicamenta to the list, the other in finding out new properties in the older remedies, and in more accurately defining the methods of operation and the *modus curandi* of medicines. To cite but an instance or two by way of suggestion. How very important it is to know that, in suitable doses,

digitalis, instead of acting as a sedative and depressant, improves the nutrition of the heart, strengthens its muscular walls, and gives tone to the nerve-centres presiding over this viscus. And yet this is new knowledge of an old medicine. So with regard to aconite. Long known as a potent drug, its most useful applications are a thing of our day. Phosphorus and its compounds, too, have been recently made most useful additions to the medical armamentarium. So of strychnine. Known only to the vulgar as a most violent poison, in the hands of the therapist it proves an efficient cure. The readers of current medical literature know, that new additions to the list of medicines are made almost every month, and that new combinations adapted to certain special ends, are being constantly made known.

There is, in fine, great activity in the department of therapeutics. We regard this as a most healthful sign. The prosecution of such knowledge is what will give contributions to the future advancement of medicine. It is a department into which every practising physician, or man of science has a right and duty to enter, and one in which he may work with the hope of being able to leave behind him, some fact or method of practice that shall be a benefit to mankind. In a new country especially, there is a path of work open to all, who have a mind to step into it, to ascertain with more precision, the properties and applications of the native flora. There is a grand opportunity in India, in the tropical colonies and stations; and it is offered here also in North America, where there are many plants popularly reputed to possess certain properties, which require to be established or contradicted by men of science. It is for Canadian practitioners to do their part in this connection, to make the world their debtor. In this view we cannot help thinking it a fortunate circumstance, that the legal requirements of the medical man in Ontario, exact a knowledge of plants and vegetable physiology, out of which studies, pursued to the full by those whose tastes carry them onward, we may hope for the work above assigned to be done.

MORAL PROPHYLAXY.

Public attention has of late years been in such a measure aroused to the necessity for the proper drainage and sewage of cities; to the enacting laws

concerning slaughter houses, and noxious and offensive trades; to the pollution of streams; the water supply of cities and towns; the abuse of intoxicating liquors; food of the people; adulteration of milk, and house accommodation of the poor in populous cities, &c., that very great improvement to public health and increased longevity has resulted. The time has gone by when physicians could ignore causes of disease, and prescribe only for results. Newspapers, periodicals, and sanitary journals are full of suggestive matter, having for its object the prevention of disease. Hygienic Prophylaxy fortunately is well to the fore front; we do not purpose, therefore, in this number, dilating upon the work relating more especially to it, that has yet to be accomplished, but rather to briefly allude to moral therapeutics, or the influence which the mind and passions exercise in the production and cure of various diseases. It was the remark of Napoleon that, in war, the moral are to the physical means as three to one, so highly did that consummate General rate the influence of mere mind on the issue of any great work. The same will often be found to hold good in the more peaceful operations of the healing art. It is by studying the mind, the feelings, and passions of his patients with more than usual tenderness and sagacity, that one physician so often outstrips another in the extent and success of his practice. There cannot be a doubt but that psychological causes of disease are too apt to be entirely overlooked, and that physicians in their minute examinations of all the physical symptoms of a malady, often overlook the influence of mental emotions on its development, its progress, and its termination. Many a disease is the *contre coup* of a strong moral emotion; the mischief may not be apparent at the time, but its germ will nevertheless be inevitably laid. "Vix ullus reperitur morbus, cui non aliquod animi pathema, vel ansam, vel incrementum, vel remedium dederit. Lord Bacon has observed, "He who would philosophize in a due and proper manner must dissect nature, but not abstract her, as they are obliged to do who will not dissect her." Dissection, however, in its anatomical sense, has not, perhaps cannot, elucidate the pathology of insanity, still it is only by a combination of argument and anatomical research, with the aid of analogy, that the phenomena and disease of the mind can be fairly investigated. Abundant illus-

trations are afforded in the text books, of the sympathies of the organ of digestion with the brain. Dr. Gregory's case is perhaps one of the best. A patient at the hour of six, one hour after dinner, was daily visited by a hag, or incubus, which confronted him, and appeared to strike him with a crutch. Immediately on this, he would fall from his chair in a swoon. This gentleman was at once relieved by diet and abstinence. The Abbé Piloni, in Florence, invariably saw the phantoms of scorpions around him after he had partaken of luncheon. In the case of an enlarged heart Dr. Kelly discovered that a dark spectrum was perceived synchronous with the systole of the ventricles, so that the patient could count his pulse merely by watching the motion of this illusive shade on the white ceiling of his room. It is, indeed, often very difficult to trace distinctly the relation between the cause and the effect, except perhaps in our own individual cases, or in those of our immediate friends. But where is the medical man that could not tell many a story of the workings of the mind in unhinging the machinery of the body. On this subject we quote from M. Reveillé Parise, "Many physicians of extensive experience are destitute of the ability of searching out and understanding the moral causes of disease; they cannot read the book of the heart: and yet it is in this book that are inscribed day by day, and hour by hour, all the griefs, and all the miseries, and all the vanities, and all the fears, and all the joys and all the hopes of man, and in which will be found the most active and incessant principles of that frightful series of organic changes which constitute pathology."

Perhaps this author does not much exaggerate the influence of mental causes when he says that deep and protracted distress of mind is the *point de depart* of the greater number of organic diseases. If our space permitted, it would be easy to extend these observations, but as our object at present is not to write an essay, but only to offer a few thoughts, it is unnecessary to say more than is requisite for impressing on students and practitioners, the importance of studying the psychological causes of disease.

PROFESSIONAL EXAMINATION, COLLEGE OF PHYSICIANS & SURGEONS OF ONTARIO.

As was mentioned in our last issue, an examination will be held in Toronto on the 21st instant. We understand that a number of candidates have enrolled their names for this examination; among others, some medical men who have been in practice for one or more years. We are glad to see this desire on the part of unlicensed practitioners to conform to the requirements of the law, and hope that every consideration in the interests of the profession will be shown them; but at the same time we deeply regret that several Canadian graduates, who have subsequently spent considerable time and money in British institutions, and possessing double qualifications, should be subjected to the loss of time and further expenditure of money attendant upon an examination before the Council. There appears to be no intention on the part of the Executive Committee to exercise the option which the Act enables it to do in reference to such persons. They have been informed that they must pass a *strict* examination, and that until this is done it will be useless for them to seek registration. This, to say the least, seems exceedingly arbitrary; and moreover, it is a breach of faith on the part of some of the members of the Executive Committee, who agreed to the insertion of a clause in the Bill, with the distinct understanding that it was to relieve this class among others of what was considered a wholly unnecessary examination. Was this clause inserted in the Bill as a mere blind, or was it intended as a means whereby wealthy and influential men from abroad could secure an easy entrance into the profession here? Does the Council, or does it not, intend to exercise the option of admitting to registration, without an examination, those whom everybody considers worthy of such a distinction? The ridiculous position of the Council in this respect would be still more apparent, if for instance Dr. Gross, of Philadelphia, Dr. Flint or Hamilton, of New York, wished to come to Canada to practice medicine. Would the Council insist on *their* passing a *strict* examination. Fancy Dr. Aikins, with all his knowledge of Practical Surgery, and for which he deserves great credit, examining such a man as Prof. Gross or Hamilton; or Dr. Clark,

There are no cases of small-pox in Toronto at present, the hospital for which has been closed.

of Guelph, examining Prof. Flint on the Practice of Medicine. They would simply be laughed at from one end of the country to the other. And these are the men who insist that every man, no matter what his standing and attainments may be, must pass a *strict* examination; and until this is done it will be useless for him to seek registration.

If the object is to render the Council unpopular, these arbitrary and unjust proceedings are the very things to do it. The Council has a very good enactment. It has great powers, but it must at the same time be careful how it uses them, or it may create such a reaction in the professional mind as will cause its speedy annihilation.

Many warm friends have been already alienated by some of its proceedings, and it becomes a matter of the greatest importance how its affairs are conducted, if it is to continue on the statute book.

CENTENNIAL OF CHEMISTRY.

A convention of American chemists in honor of Priestley, and to celebrate the 100th anniversary of the discovery of oxygen, was held in Northumberland, Pa., U.S., on the 31st of July and following days. The meeting was largely attended, and several very interesting papers were read. Prof. Croft of Toronto, was present as the representative from Canada, and read an able address on the "Life and Labors of Dr. Joseph Priestley." A paper was also read on the Century's Progress in Industrial Chemistry, by Prof. Smith, of Kentucky. Prof. Sterry Hunt of Boston read a paper on the "Century's Progress in Theoretical Chemistry." A commemorative address on American contributions to chemistry was delivered by Prof. Silliman, of New Haven, Conn. Among the business transacted by the convention was the appointment of a committee to extend by telegraph the sympathies of the meeting in Northumberland to the meeting being held contemporaneously at Birmingham, England, to unveil the statue of Priestley. The following despatch was sent by cable:—"The brethren at the grave, to the brethren at the home of Priestley send greeting." Prior to the adjournment in the evening the following despatch in reply was received from the chemists assembled at Birmingham:—"Our marble statue representing

Priestly discovering oxygen will be unveiled tomorrow, presented by subscribers, through Prof. Huxley to the town and accepted by the Mayor. We greet you as colleagues engaged in honouring the memory of a good and great man."

Prof. Smith, of Kentucky, advocated the holding of a meeting of chemists during the year 1876, the American centennial, which is to be held in Philadelphia. His views prevailed, and a committee was appointed to make arrangements. A vote of thanks was passed to the President, the various committees and others, and the meeting adjourned until the 1st of August, 1874, *one hundred years* from to-day!

PROF. ERICHSEN.—Prof. Erichsen, of University College, London, Eng., the distinguished surgeon and author, was in Toronto for a few days the last week of August. He visited the Hospital, University, and other places of interest. Several of the medical men of Toronto called upon him at his rooms in the Queen's Hotel. He visited Niagara Falls, and intends making a tour through the United States before returning home.

We have received the following communication from the Dr. since his departure:—

Clifton House, Niagara Falls,
August 25, 1874.

To DR. FULTON,

Editor of the CANADA LANCET.

My Dear Sir,—Will you allow me through the medium of your valuable journal, to return my most cordial thanks to my medical brethren in Toronto, for the very friendly, indeed I may truly say flattering manner, in which I was received by them. I came to Toronto a stranger. I found the city full of friends. I regret much that my stay was unavoidably so short that I had not the pleasure of being able to meet the members of our profession, in that more public manner which I was told was the desire of some. But I shall ever retain a lively remembrance of the very cordial reception I met with, during my short visit to Toronto.

Believe me to be, my dear Sir,

Most faithfully yours,

JOHN ERIC ERICHSEN.

SCHOOL FOR YOUNG LADIES.—The widow of the late Dr. Rolph conducts a school in Toronto for young ladies and misses. The school has been in successful operation for the past two years, and has been very well attended. We have no doubt many of the medical friends of the late Dr. Rolph and others will be glad to know that his widow is meeting with success, and will favor her by using their influence in sending her pupils. The school is thoroughly equipped in every particular, and none but first-class teachers are employed.

PHARMACEUTICAL PREPARATIONS.—Dr. A. B. Lyons, analytical chemist of Detroit, has been analysing the preparations of Messrs. Wm. R. Warner & Co., of Philadelphia, and with very satisfactory results. In reference to their sugar-coated Quinine pills he says in his report "these pills are practically just what they claim to be, whether judging by analytical tests or by the therapeutic effect obtained from them."

ROYAL COLLEGE OF SURGEONS, ENGLAND.—The following gentlemen from Canada having passed the required examination for the Diploma, were duly admitted members of the College in July:—John Jay Farley, M.D., and Francis John Shepherd, M.D., McGill College, Montreal, and Wm. Henry Johnson, M.D., Toronto.

APPOINTMENTS.—Henry Thomas Corbett, M. D., Ottawa, Associate Coroner for the County of Carleton. Donald Alexander McCrimmon, M.D., Lucknow, Associate Coroner for the County of Bruce. Moffitt Forster, M.D., Thorndale, Associate Coroner for the County of Middlesex. Albert Edward Harvey, M.D., Wyoming, Associate Coroner for the County of Lambton. George Milmine McMicking, M.D., Goderich, Associate Coroner for the County of Huron. Robert Ramsay, M.D., Orillia, Associate Coroner for the County of Ontario. William Lafayette Smith, M. D., Mount Hope, Associate Coroner for the County of Wentworth. Sylvester Lloyd Freely, M.D., Stouffville, Associate Coroner for the County of Ontario.

DIED.

On the 17th ult., Dr. KING, of Seaforth, in the 40th year of his age.

On the 22nd ult., of cholera infantum, Kenneth Duncan, only son of Dr. McKinnon, Stratford, aged one year and five months.

Book Notices.

THE SCIENCE OF HOMŒOPATHY, or a critical and synthetical exposition of the Homœopathic School. By C. J. Hempel, M.D. New York: Bœricke & Tafel. Price, \$1.75.

ARCHIVES OF ELECTROLOGY AND NEUROLOGY, vol. 1, No. 1, May, 1874; edited by George M. Beard, A.M., M.D., New York.

ELECTROLYSIS IN THE TREATMENT OF STRICTURE OF THE URETHRA, by Robert Newman, M. D., New York.

FIVE YEARS SURGICAL WORK IN THE MANCHESTER ROYAL INFIRMARY, by Edward Lund, F.R.C.S., Manchester, England.

THE ORIGIN OF CREATION, a new system of Natural Philosophy, by Trfad. Halifax, N. S.

The nucleus of the present work has already appeared in the form of essays on natural science. The author expects to revolutionize the whole theory of natural science taught in the present day. The book is a literary curiosity in its way, and as such we bring it under the notice of our readers.

Reports of Societies.

CANADIAN MEDICAL ASSOCIATION.

FIRST DAY'S PROCEEDINGS.

The seventh annual meeting of the Canadian Medical Association was held at the Clifton House, Niagara Falls, commencing on Wednesday, the 5th August, and continuing in session two days.

The President, Dr. Marsden, of Quebec, took the chair at 10 o'clock, a.m. The minutes of the previous meeting were read and approved, after which the President delivered the annual address, which was listened to with marked attention.

The following members were present, some of whom were elected at the present meeting:—Dr. Marsden, Quebec; Dr. Botsford, St. John's, N.B.; Drs. David, Hingston, Trenholme, and Robillard,

Montreal ; Dr. Grant, Ottawa ; Dr. Baxter, Cayuga ; Drs. H. H. Wright, Giekie, Canniff, Thorburn, Oldright, Russell, Rosebrugh, Temple, C. B. Hall, and Fulton, Toronto ; Drs. McDonald, Mullin, Malloch and Case, Hamilton ; Drs. Turquand, McKay and Scott, Woodstock ; Dr. Clarke, Princeton ; Drs. Mack and Copeland, St. Catharines ; Dr. Sloan, Blyth ; Dr. Fraser, Pelham ; Dr. Bugar, Welland ; Dr. Hamilton, Millbrook, and several others. Dr. Jenks, Detroit, and Dr. Thompson, Lansing, Mich., were present as delegates from the American Medical Association.

An interesting paper on "Enteric fever," which we publish elsewhere, was read by Dr. Malloch of Hamilton ; another on "Uterine decidua," by Dr. Trenholme of Montreal, and one on "Monstrosities," by Dr. Mullin of Hamilton. Dr. Scott of Woodstock, brought before the notice of the Association a new kind of "uterine supporter," which elicited considerable discussion. Dr. Botsford also exhibited a plan of bed for removing persons suffering severe illness or great pain. Certain amendments to the constitution and by-laws of the association were read and adopted. The papers above referred to were reviewed by several of the members, and occupied the rest of the day and evening. Some of these papers will appear in the LANCET from time to time.

SECOND DAY'S PROCEEDINGS.

The chair was taken at 10 a.m. The minutes of yesterday were read and approved, and some new members enrolled.

The report of the nominating committee was next received.

The following are the officers for the ensuing year :—

President.—Dr. Botsford, St. John's, N.B.

Vice-President for Ontario.—Dr. McDonald, Hamilton.

Vice-President for Quebec, Dr. Rottot, Montreal.

Vice-President for New Brunswick, Dr. G. A. Hamilton, St. John's.

Vice-President for Nova Scotia, Dr. Wickwire, Halifax.

General Secretary.—Dr. David, Montreal.

Treasurer.—Dr. Robillard.

Corresponding Secretary for Ontario—Dr. Malloch, Hamilton.

Corresponding Secretary for Quebec—Dr. F. E. Roy, Quebec.

Corresponding Secretary for New Brunswick—Dr. Gregory, Fredericton

Corresponding Secretary for Nova, Scotia—Dr. Moran, Halifax.

The following committees were appointed on the subjects named :—

PUBLICATION—Drs. Peltier, Marsden and Scott.

MEDICINE—Drs. Howard, Sewell, and H. H. Wright.

SURGERY—Drs. Hingston, Canniff and Grant.

OBSTETRICS—Drs. Trenholme, Lavell, and U. Ogden.

THERAPEUTICS—Drs. Clarke, Thorburn and Fenwick.

NECROLOGY—Drs. Campbell, Grenier, and De Wolf.

MEDICAL EDUCATION AND LITERATURE—Dr. Bayard, Parker, and Fulton.

CLIMATOLOGY—Drs. Botsford, Larocque, Thompson, Mullin and Turquand.

PRIZE ESSAY—Drs. Hodder, Oldright, and Craik.

Some discussion arose as to the manner of entertaining members of the association at future meetings, and Dr. Jenks of Detroit gave the association some valuable suggestions, arising from his experience in providing for the meeting of the American Medical Association in Detroit, a short time ago. Dr. Hingston brought forward the subject of acupressure in arresting hæmorrhage in surgical wounds, and exhibited a small *ecraseur* which he uses for the purpose of crushing the ends of vessels to arrest hæmorrhage. Several members took part in the discussion, some recommending torsion, some acupressure, and some the good old fashioned silk ligature.

A paper was then read by the Secretary, Dr. David, in the absence of the author, Dr. Howard of Montreal, on the "Pathology of Tubercle and Pulmonary Phthisis."

A vote of thanks was passed to those who read papers ; to the President ; to the railway and navigation companies ; and to the proprietors of the Clifton House for the use of the hall. The association then adjourned to meet in Halifax on the first Wednesday of August, 1875. Dr. Botsford was requested to appoint a committee to make arrangements for the next meeting. The members then took dinner together, and left by the afternoon trains for their respective homes.