

ART. II.—*Contribution to an Account of the Diseases of the North American Indians.* By THOMAS STRATTON, M. D. Edin.; L. R. C. S. E.; Memb. Toronto Medico-Chirurgical Soc.; Memb. Montreal Natural History Soc.; Corresp. Memb. Quebec Literary and Historical Soc.; Hon. Memb. Highland Soc. of Canada; Surgeon R. N.; late Surgeon to the Chippawa Indians of Lake Huron.

HAVING been stationed in Canada for ten years, and part of this time at places, where I had opportunities of seeing many Indians, and of occasionally treating their diseases, I think that it may be a not unacceptable contribution to the scanty literature of this subject to offer a few remarks on the diseases of the North American Indians. I resided for nearly four years at Penetanguishene, and other parts of Lake Huron; and on the 29th of December

\* Cruveilhier and Bichat have also pointed out the necessity of distinguishing this change from true fatty transformation of muscle.

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1846, by the Governor-General (Earl Cathcart), I was appointed "medical attendant to the Beau Soleil Indians, and to the Chip-pawa Indians of Lake Huron, and Simcoe who reside near Penetanguishene."

The Indian department in Canada is managed by a superintendent-general, an assistant-superintendent (George Vardon, Esq.), who reside in Montreal, two visiting superintendents, and four or five stationary superintendents, who reside at Manitoulin, Brantford, and other places. At Brantford, Orillia, Penetanguishene, and Manitoulin, there are regular yearly salaries paid to surgeons for attending the Indians. Land belonging to the Indians is very properly not allowed to be bought from them direct by private persons, as this would lead to constant imposition on the aborigines, but it is purchased from the government, and the proceeds of the sale set apart for the benefit of the Indians—to pay the salaries of the superintendents, surgeons, clergymen, schoolmasters, &c.—to build houses, and to procure blankets, guns, powder and shot, which are annually issued. There is also the sum of L.15,000 annually voted by the British Parliament for the purchase of blankets and other presents to the Indians; but it is not unlikely that this grant will soon be discontinued.

There are a few remarks on the state of medicine among the Indians in the first volume of Dr Rush's *Medical Inquiries and Observations*,\* and also in Douglas's *Medical Topography of Upper Canada*.†

*Report I.*—From my friend Mr Vardon, I received a copy of the medical report of the Six Nations Indians, living on the banks of the Grand River, Lake Eric. The surgeon to these Indians is Alfred Digby, Esq., who resides at Brantford, and whose report I take the liberty to subjoin. The Six Nations Indians are composed of the tribes of the Cayugas, Senecas, Mohawks, Delawares, Mississaugas, and Tuscaroras, and they amount to 2200 in number.

Number of sick among the Six Nations Indians treated from 1st March 1847, to 1st March 1848.

Intermittent fever, ...	142	Bleeding from various causes, 51
Bilious, intermittent, and remittent fever, ...	48	Teeth extracted, ...
Scarlatina, ...	13	Diarrhœa and dysentery, ...
Measles, ...	27	Constipation, ...
Erysipelas, ...	5	Enteritis, ...
Encephalitis, ...	5	Liver-complaint, ...
Ophthalmia, ...	18	Vermes, ...
Phthisis, ...	4	Hæmorrhoids, ...
Pneumonia, ...	9	Retention of urine, ...
		Gonorrhœa, ...

\* Philadelphia, 1789; and second edition, Philadelphia, 1805.

† London, 1819, page 120.

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Stricture, ... ..	5	Amputation of fingers, mangled in a thrash- ing-machine, ...	1
Primary and secondary syphilis, ... ..	11	Partial amputation of foot, after the same accident,	1
Childbirth, difficult cases,	8	Frost-bitten ears, hands, and feet, ... ..	19
Burns and scalds, ... ..	5	Children vaccinated, ...	8½
Wounds, from fighting and accidents, dressed, ...	28		
Amputation of leg, after frost-bite, ... ..	1		
		Total cases, ...	718

*Report II.*—The following is Mr Digby's return of the total number of deaths, and causes of death, among the Six Nations Indians, from 1st March 1847 to 1st March 1848.

Deaths.		Deaths.	
Fevers, bilious, remittent, &c., ... ..	23	In childbirth, from malfor- mation of the pelvis,	1
Encephalitis, ... ..	1	Intoxication and exposure to cold, ... ..	4
Erysipelas, ... ..	1	Syphilis, ... ..	1
Phthisis, ... ..	4	Drowned by the upsetting of a canoe, ... ..	2
Enteritis, ... ..	1	Old age, ... ..	2
Liver-complaint, ... ..	4	Murdered by other Indians,	2
Children from fits caused by worms, ... ..	7		
		Total deaths, ...	54

Here, in fifty-four deaths, there are two from old age. Fifty-four deaths in a population of 2200, is between twenty-four and twenty-five in a thousand.

These Indians are far advanced in civilization; they have in a great degree given up their hunting habits; they have schools, churches, and farms. Some of them, however, continue heathen, and at Cayuga have annually a sacrifice of a white dog. They are surrounded by a white population, and so are exposed to the influence of vicious example, which accounts for there being so many cases of a certain disease. The marshy banks of Grand River are very unhealthy in summer and autumn, malarial fevers then being very general. I spent several seasons at Dunnville and Port Maitland, on Grand River, and gave a short account of their medical topography in the sixty-first and sixty-third volumes of this Journal.\*

The returns which follow relate to the Indian establishment on Great Manitoulin Island. This is a large island in Lake Huron

\* Edinb. Med. and Surg. Journal, April 1844, p. 392; April 1845, p. 327; and July 1845, p. 105.

(140 miles from Penetanguishene), where there is a Protestant settlement at Manitouwanning, the residence of the superintendent, surgeon, Episcopal clergyman, schoolmaster, and of about 200 Indians. Four miles distant is the village of Wequemecong, where reside a Roman Catholic priest and about 600 Indians. These Indians in general profess to be either Catholics or Protestants, but a few continue heathen. They cultivate maize or Indian corn, potatoes, wheat in small quantity, and prepare maple sugar. They also engage in fishing. There is now but little hunting. The exports of the island are maple-sugar and potatoes.

Annually, in August, there is a great assemblage here of Indians from the west and north. They come to receive presents of blankets, provisions, guns, and powder and shot. Many who are not to receive presents also attend in order to see their friends and acquaintances. In 1845, I was at Manitoulin at the time of the distribution of presents; the scene was a very animated one; on the steep bank of a large bay were numerous wigwams (huts) of bark, and along the shore were hundreds of bark canoes. From my friend Captain George Anderson, the superintendent, I obtained the numbers of Indians who attended and received presents in the under-mentioned years: in 1839, the number of Indians was 3304; in 1840, 5057; in 1841, 3874; in 1842, 5812; in 1843, 3771; in 1844, 1887; and in 1845, 1852.

Up to 1843 inclusive, presents were given to some branches of the Ottawa and Chippawa tribes, and other Indians, who usually resided in what is now the United States; but in 1844, the presents to United States Indians were discontinued. The visiting Indians remain on the island for four or five weeks, and then move off in their canoes to their respective hunting grounds, or more usual places of abode. The resident Indians here are chiefly Chippawas and a few Ottawas; the visiting Indians also are chiefly of the above clans, and also include Menomenies, Ponowatomies, and some other tribes. With my friend Paul Darling, Esq., the surgeon of the Indian department here, I went into a number of the wigwams seeing cases of illness. From Mr Darling, I received copies of his medical reports for several years. I afterwards received the same reports from Mr Vardon of the Indian Office, Montreal.

Report III. Mr Darling's Medical Report of the Manitoulin Indians for ten months, from 10th October 1840 to 16th August 1841.

Fever, ...	21	Paralysis, ...	2	Ophthalmia, ...	9
Ephemera, ...	2	Neuralgia, ...	10	Catarrh, ...	18
Headach, ...	6	Hydrocephalus, ...	3	Cynanche, ...	28
Epilepsy, ...	4	Deafness, ...	1	Bronchitis, ...	10
Hypochondriasis, ...	1	Snow ophthalmia, ...	4	Pneumonia, ...	1

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Hæmoptysis, ...	2	Gravel, ...	1	Malignant nasal polypus, ...	1
Epistaxis, ...	1	Gonorrhœa, ...	10	Scrofula, ...	2
Syncope, ...	2	Veneral bubo, ...	1	Scabies, ...	19
Palpitation, ...	2	Abortion, ...	2	Prurigo, ...	2
Laryngitis, ...	1	Amenorrhœa, ...	10	Psoriasis, ...	1
Varicose veins, ...	1	Leucorrhœa, ...	2	Porrigo, ...	15
Teeth extracted, ...	54	Prolapsus uteri (half breed), ...	1	Contusion, ...	6
Vermes, ...	16	Procidencia ut. (half breed), ...	1	Burn, ...	1
Ranula, ...	1	Menorrhagia, ...	4	Abcess, ...	17
Vomiting, ...	2	Acute rheumatism, ...	5	Debility, ...	3
Constipation, ...	16	Chronic do. ...	32	Wounds, ...	15
Diarrhœa, ...	30	Pleurodyne, ...	6	Mumps, ...	1
Difficult dentition, ...	11	Lumbago, ...	10	Enlarged glands, ...	13
Aphtha, ...	8	Sprain, ...	2	Paronychia, ...	2
Colic, ...	4	Dislocation, ...	1	Ulcers, ...	2
Dyspepsia, ...	6	Fractured arm, ...	1	Boils, ...	12
Icterus, ...	1	Diseased spine, ...	6	Prickly heat, ...	1
Tympanites, ...	2	— shoulder, ...	1	Inflamed nipples, ...	7
Enteritis, ...	3	— wrist, ...	1	Dysentery (during the issue of presents), ...	47
Hæmorrhoids, ...	1	— ankle, ...	3		
Marasmus, ...	3	Ankylosis, ...	1		
Harelip, ...	1	Tumour, ...	1		
Peritonitis, ...	1				
Nephritis, ...	2				
Dysuria, ...	3				
				Total, ...	573

cases, exclusive of those (dysentery excepted) treated during the issue of presents. The subject of the case of hypochondriasis was a woman, who had been long in a hypochondriac state, and she committed suicide by drowning.

*Report IV.*—Mr Darling's Medical Report of the Manitoulin Indians for sixteen months from 16th August 1841 to 31st December 1842.

## Cases treated.

Fever, ...	14	Ophthalmia tarsi, ...	13	Phthisis, ...	12
Intermittent fever, ...	6	Congest. of brain, ...	2	Catarrh, ...	52
Ophthalmia, ...	32	Amentia, ...	1	Hæmoptysis, ...	1
Encephalitis, ...	2	Croup, ...	1	Teeth extracted, ...	68
Neuralgia, ...	14	Aphonia, ...	1	Lientery, ...	2
Sciatica, ...	5	Bronchitis, ...	4	Diarrhœa, ...	42
Hydrocephalus, ...	3	Chronic bronch., ...	19	Dysentery, ...	46
Concussion, ...	3	Pneumonia, ...	3	Constipation, ...	28
Earache, ...	14	Cynanche, ...	28	Hepatitis, ...	2
Paralysis, ...	2	Wounds of chest, ...	4	Vomiting, ...	10
Epilepsy, ...	6	Pleuritis, ...	7	Colic, ...	12

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Ascites, ...	1	Procidencia uteri, 1	Puerperia, ...	1
Dyspepsia, ...	6	Inflamm. of labia, 1	Pompholyx, ...	13
Difficult dentition, 28		Acute rheumatism, 3	Erysipelas, ...	1
Ulcerated throat, 5		Chronic rheumat. 40	Burns, ...	7
Vermes, ...	21	Pleurodynia, 3	Wounds, ...	20
Tape-worm, 2		Lumbago, ...	6 Inflammation of	4
Gall-stones, 1		Sprain, ...	2 " mamma. )	
Gonorrhœa, 8		Exostosis, ...	1 Abscess, ...	11
Dysuria, ...	1	Periostitis, ...	1 Lumbar do. ...	1
Hæmaturia, ...	1	Paronychia, 2	Mammary do. ...	2
Retention of urine, 1		Discased spine, 4	Boils, ...	8
Gravel, ...	1	— shoulder, 1	Debility, ...	3
Amenorrhœa, 4		— hip, 2	Marasmus, ...	6
Difficult labour, 1		— knee, 4	Aneurism, ...	1
Menorrhagia, 1		Contusion, ...	23	
Dysmenorrhœa, 1		Ulcers, ...	10	
			Total,	726

cases, exclusive of cases of hooping-cough, of which no account was kept, and also of cases treated during the issue of presents, during which time, from four to six weeks, there is scarcely time to note the cases. The cases of ague were imported; they occurred in Indians on their return from visiting Detroit,—a malarious part of the country. In the original report are included three cases of parturition and one of hypochondriasis, all occurring in whites, and which I have accordingly omitted.

*Report V.*—Medical Report of the Manitoulin Indians for twelve months, from 1st January 1844, to 31st December 1844.

*Cases treated.*

Fever, ...	47	Asthma, ...	1	Dysuria, ...	1
Scarlatina, ...	10	Pleuritis, ...	8	Post-scarlatinal	
Intermittent fever, 1		Inflamed mamma, 2		anasarca, ...	5
Deafness, ...	8	Syncope, ...	1	Spina bifida,	1
Earache, ...	17	Teeth extracted, 76		Menorrhagia,	2
Phrenitis, ...	3	Difficult dentition, 20		Amenorrhœa,	2
Hypochondriasis, 1		Aphtha, ...	10	Lumbago, ...	7
Neuralgia, ...	24	Vermes, ...	19	Discased spine,	2
Paralysis, ...	4	Dyspepsia, ...	4	— hip,	1
Sciatica, ...	13	Liver-complaint, 1		— knee,	5
Ophthalmia, 30		Diarrhœa, ...	48	— ankle,	1
Cynanche, ...	43	Dysentery, ...	18	Sprains, ...	26
Catarrh, ...	62	Constipation, 36		Periostitis, ...	1
Bronchitis, ...	24	Colic & vomiting, 14		Fractured ribs,	1
Hæmoptysis, 4		Hernia, ...	1	Wounds, ...	21
Phthisis, ...	4	Cholera infantum, 32		Contusion, ...	26
Hooping-cough, 7		Gonorrhœa, ...	1	Ulcer, ...	17

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*Peculiar ulceration, ...	2	Boils, ...	12	Debility, ...	3
Abscess, ...	14	Psoriasis, ...	1	Cataract, ...	1
Burns, ...	10	Porrigo, ...	42	Mumps, ...	1
		Marasmus, ...	4		
				Total cases,	803

In the original report are included six cases of parturition in whites; these I have omitted. In 1844, there was an extensive and very mild epidemic of scarlatina. In this and the other reports, under *constipation* are included all cases generally of a slight nature, where only a purgative was required.

Report VI.—Medical report of the Manitoulin Indians, from 1st January 1845, to 31st January 1845.

## Cases treated.

Fever, ...	1	Diarrhœa, ...	5	Rheumatism, ...	3
Headach, ...	2	Colic, ...	2	Diseased elbow, ...	1
Clavus, ...	1	Lead-colic, ...	1	Fractured fibula, ...	1
Ophthalmia, ...	12	Prolapsus ani, ...	1	Contusion, ...	3
Earache, ...	2	Vermes, ...	1	Sprain, ...	3
Neuralgia, ...	5	Dyspepsia, ...	1	Elephantiasis of fore-arm, ...	1
Toothach, ...	10	Mammary abscess, ...	1	Paronychia, ...	1
Hooping-cough, ...	4	Inflamed nipples, ...	1	Lupus, ...	2
Asthma, ...	1	Prolapsus uteri, ...	1	Psoriasis, ...	1
Pleuritis, ...	1	Procidencia uteri, ...	1	Porrigo, ...	4
Bronchitis, ...	2	Amenorrhœa, ...	1	Boil, ...	1
Catarrh, ...	7	Menorrhagia, ...	1	Enlarged glands, ...	3
Palpitation, ...	2	Suppressio mensium, ...	1	Secondary syphilis, ...	1
Syncope, ...	2	Pelvic abscess, ...	1		
Constipation, ...	4			Total cases,	97

Report VII.—Medical Report of the Manitoulin Indians for six months, from 1st January 1846, to 30th June 1846.

## Cases treated.

Fever, ...	27	Epilepsy, ...	2	Aneurism of arch of aorta, ...	1
Intermittent fever, ...	2	Bronchitis, ...	37	Heartburn, ...	3
Frontal neuralgia, ...	12	Phthisis, ...	4	Aphtha, ...	4
Ophthalmia, ...	24	Hæmoptysis, ...	4	Teeth extracted, ...	68
Earache, ...	2	Pleuritis, ...	5	Constipation, ...	45
Deafness, ...	2	Cynanche, ...	14	Diarrhœa, ...	16
Otorrhœa, ...	1	Pneumonia, ...	1	Dysentery, ...	3
Spinal irritation, ...	4	Laryngitis, ...	1	Lientery, ...	1
Nervous irritability (from fright), ...	1	Palpitation, ...	1	Colic, ...	8

\* See the remarks on the Ottawa Disease, *postea*.

Dyspepsia, ...	9	Pleurodynia,	5	Abscess, ...	2
Vomiting, ...	3	Lumbago, ...	13	Burn, ...	3
Vermes, ...	12	Sprains, ...	4	Bubo, ...	1
Tapeworm,	1	Contusion, ...	5	Paralysis, ...	2
Diseased spleen,	1	Luxated wrist,	1	Mumps, ...	20
Marasmus, ...	1	Fractured fingers,	1	Porriago, ...	13
Hepatitis, ...	1	———— fore-arm,	1	Psoriasis, ...	1
Hæmorrhoids,	2	———— ribs,	1	Musquito bites,	2
Prolapsus ani,	2	Diseased spine,	4	Asphyxia (sugar	
Stricture, ...	1	———— hip,	2	in trachea),	2
Orchitis, ...	1	———— knee,	3	Anæmia, ...	1
Salivation, ...	1	Paronychia,	1	Dropsy, ...	1
Hæmaturia,	1	Lupus, ...	3	Debility, ...	2
Gleet, ...	1	Ulcers, ...	9	Erythema, ...	1
Morning sickness,	1			Tumour of fore-	
Menorrhagia,	2	Peculiar ulceration of	Nose, 1 Nostrils, 4 Throat, 4 Arm, 2 Axilla & groin, 1	arm, ...	1
Amenorrhœa,	5			Wounds, ...	8
Abortion, ...	1				
Sinking after labour,	1				
Rheumatism,	39				
				Total cases,	502

The Indians use an infusion of the bark of the cherry-tree for the cholera infantum, or what is sometimes called in Canada the *summer-disease*, or the *summer-complaint*.

The case of aneurism was the first one Mr Darling had seen during fourteen years' intercourse with Indians.

In all the severe cases of neuralgia, the patient had previously had ague. Unimported ague and lake-fever are unknown in Manitoulin Island.

The subject of one of the cases of peculiar ulceration of the arm was a woman; the ulceration extended from the shoulder to the fingers, one of which was nearly separated; she was reduced nearly to a skeleton. The treatment was generous diet, wine, iodine, sarsaparilla, and simple local applications; she recovered in two months. These peculiar ulcerations of the nostrils, axillæ, groins, &c., are the remains of a disease resembling the yaws of the West Indies, and the sibbens\* of Scotland, and which I shall describe under the unhypothetical appellation of

#### THE OTTAWA DISEASE.

The disease, of which I shall now give an account, has prevailed more among the Ottawas than the other tribes, and I shall accordingly here name it the *Ottawa disease*.

After much inquiry, I cannot find that the Indians have any distinct name for it. Their name for syphilis, when translated,

\* See Dr Craigie's Practice of Physic, vol. i. p. 681.



signifies *bad disorder*. About the year 1740 or 1760, it is said to have made its first appearance among the Indians around Lake Huron. A tradition exists that its first subject was a woman, from whom it was observed to spread; and in a council, it was considered whether this unfortunate female should not be put to death. The result is variously stated.

*Symptoms.*—The leading symptoms of this disorder are languor and lassitude; dull, almost constant pain between the orbits, and in the upper part of the nose; sometimes pain in the frontal bone, and in the malar bones; ulceration of the nostrils, and of the soft palate; a bad odour from the nostrils; sometimes destruction of the hard palate; and pains in the bones generally, increased by wet weather. Small ulcers form in the groin, on the inside of the thighs, and at times on the arms. A thick crust, an inch or so square, when removed, discloses an indolent-looking scooped-out ulcer, of no uniform shape. Sometimes an eruption appears in the groin, and on the inside of the thighs. In some cases, an extended, peculiar, indolent, scrofulous-looking, superficial ulceration of the axillæ, groins, thighs, or arms. No particular eruption or rasp-like growth about the angles of the mouth has been observed.

My friend, Mr D., has not seen destruction of any bone except the palate; and has never seen the genital organs affected. Of the above symptoms, languor and lassitude, and the inter-orbital pain are invariably present, and some cases present no other symptom. Cases more severe, have in addition the general pains in the bones, a bad odour from the nostrils, and sometimes frontal and malar pain. An untreated slight case sometimes has remained nearly stationary for four or five years. It prevails more among females than among males; it is thought by the Indians to be communicated by the common use of pipes, spoons, and drinking-vessels. If this idea be correct, its less frequent appearance among the males may perhaps be explained by the circumstance of their being much out hunting and fishing.

In one family, the mother and her three children all had the disease; two of the children were of tender years.

I saw a family consisting of the parents and five children; one of the younger children, a girl of seven, had this disease; the other six members of the family had never had it; the parents had not had syphilis. The disease has not been seen in whites.

*Diagnosis.*—The Indians themselves, by merely observing the symptoms, frequently cannot tell the difference between syphilis and the Ottawa disease, but observing the effect of remedies (the *juvantia* and *lædentia*) aids their diagnosis. They consider it to be a different disease from syphilis. They call it and syphilis *twins*. The accompanying general pains are apt to be mistaken for chronic rheumatism, to which the Indians are very subject.

*Prognosis.*—When the disease first appeared among them, it is said to have been frequently fatal; it is now much milder (as also is syphilis), and the prognosis is favourable.

*Treatment.*—The Indians treat this disease with various secret herbs which are different from those they use in syphilis.

Mr D. has treated cases in the following ways:—1. Good diet; citrine ointment to the ulcers in the nostril and those of the palate; a mild course of blue pill; in other cases, Plummer's pill. 2. Nitrate of silver, either solid or in strong solution, to the ulcers of the nostril and palate; good diet; iodine and hydriodate of potass. This latter method seems to be the preferable one.

*Remarks.*—At first sight, one might suppose it to be not unlikely that this disease is only a variety of secondary or tertiary syphilis modified by time, by race, or it may be by some peculiar Indian treatment. But that it is not of a syphilitic character, appears likely from its appearing in young children, the offspring of parents who have never had either syphilis or the Ottawa disease. To enter at full length on the points in which it resembles, and in which it differs from, yaws, siccens, and syphilis, would occupy too much space in this part of my communication. The opportunity of observing a greater number of cases seems necessary to enable one to form a correct idea of the real nature of this disease. I have given as full a description of it as my own opportunities of observation, and Mr Darling's information, enabled me to do, and I leave the facts to the consideration and the theories of the reader.

*Report VIII.*—During July 1846, among the Manitoulin Indians, there were treated fifty-two medical and surgical cases, including a case of gunshot wound, one of frontal neuralgia, two of prickly heat, one of hæmoptysis, and three of bronchitis.

*Report IX.*—In August 1846, among the Manitoulin Indians, there were treated thirty-two medical and surgical cases, including one of phthisis, three of musquito-bites, one of peculiar ulceration of the nostrils, and one of facial neuralgia.

*Report X.*—Mr Darling's Report of medical and surgical cases occurring among the Manitoulin Indians for twelve months, from 1st January 1847 to 31st December 1847.

*Cases treated.*

Fever, ...	76	Deafness, ...	1	Hæmoptysis, ...	8
Intermittent fever, 3		Cynanche, ...	26	Phthisis, ...	3
Ophthalmia, 16		Bronchitis, ...	44	Pleuritis, ...	3
Earache & otorrhœa, 3		Catarrh, ...	34	Hooping-cough, 130	

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Anaemia, ...	1	Diseased spine,	1	Erythema, ...	1
Aneurism of aorta, 1	1	----- shoulder,	1	Boils, ...	10
Tumour of tongue, 1	1	----- hip,	1	Orchitis, ...	1
Teeth extracted, 102	102	----- knee,	1	Ulcers, ...	6
Dyspepsia, ...	7	Paronychia, ...	10	Debility, ...	2
Colic, ...	20	Fractured fibula,	2	Snow-ophthalmia,	3
Icterus, ...	2	Amputation of		Prickly heat,	6
Hæmorrhoids,	2	great toe,	1	Sleeplessness (from	
Amenorrhœa,	8	Wounds, ...	18	excessive use of	
Menorrhagia,	1	Neuralgia, ...	12	tea), ...	1
Acute rheumatism,	5	Paralysis, ...	3	Constipation,	112
Chronic do.	55	Mumps, ...	3	Mal de Racquette,	
Lumbago, ...	14	Dropsy, ...	1	or snow-shoe evil,	4
Spinal irritation,	8	Porrigo, ...	31		
Sprain, ...	8	Lupus, ...	2	Total cases,	828
Contusion, ...	12	Psoriasis, ...	1		

None of the "fevers" were from malaria. Under *constipation*, in this and the other reports, are classed cases of slight ailment, requiring only purgative or cathartic medicine. The case of sleeplessness was in a badly-fed woman, who consumed a great quantity of green tea; the symptoms resembled a mild case of delirium tremens.

From March 1847 to July 1847, there were a great many vaccinations performed.

Hooping-cough is tedious among Indians. Acute rheumatism is rare among Indians.

In the original report there are included two cases of parturition in whites, which I have omitted.

The snow-shoe evil is a painful affection of the instep, in persons unaccustomed to snow-shoes, and after their first wearing them for a few days. It goes off in a short time with rest, &c. From Manitoulin to Penetanguishene is 140 miles, and in winter several parties travel this distance on the ice, and require usually to wear snow-shoes, as the snow is often deep. Snow-ophthalmia is apt to come on during these long journeys. In these long walking expeditions over ice and snow, to prevent blindness, the Indians sometimes use a veil. I have seen the snow-shoes stained green, which is of no small advantage, as the pedestrian is frequently looking at them. The snow-shoe, as the reader probably knows, is a light oval hoop of wood about three feet long, and eighteen inches broad in the middle; the interior is filled up with deer-skin net-work, and on its centre the pedestrian's foot is fastened and rests, and in the deepest snow he sinks only about one or two inches, from his weight being spread over a large surface.

Report XI.—Abstract of medical and surgical cases occurring among the Indians of Great Manitoulin Island, Lake Huron.

	No. of cases treated.
From 10th October 1840, to 16th August 1841,	573
... 16th August 1841, to 31st December 1842,	727
... 1st January 1844, to 31st December 1844,	803
... 1st January 1845, to 31st January 1845,	97
... 1st February 1845, to 28th February 1845,	94
... 1st January 1846, to 30th June 1846,	502
In July 1846,	52
... August 1846,	32
From 1st January 1847, to 31st December 1847,	828

Some of the above returns include cases of extraction of teeth. I have now given all the Manitoulin sick reports that are extant up to 1848; some of them were destroyed by an extensive fire at Manitouwawning; and during part of the period, various circumstances made it impossible to keep a record of the cases.

On Manitoulin Island there are four families of whites, a very few half-breeds, and the remainder are Indians. The island is about a hundred miles long; and besides the two principal villages I have mentioned,—of Manitouwawning of 200 inhabitants, and Wequemekong of 600 inhabitants,—there are two or three other villages, each containing sixty or seventy Indians. The Ottawas call Manitoulin Island by the name of Ottawa Island.

*Indian Remedies.*—My friend Dr Winder, in a paper in Dr Hall's British American Journal for January 1846, alludes to the five following remedies in use among the Indians:—As an astringent, the *Geranium maculatum* is frequently used in hemoptysis, diarrhœa, dysentery, and leucorrhœa, and as a styptic in external hemorrhage. In rheumatism, chronic rheumatism, and syphilis, the *Xanthoxylum fraxineum*, or prickly ash, is used with the same effect as guaiacum. The *Xanthorrhiza apifolia* is used as a tonic and as a diuretic, and its infusion is applied to inflamed eyes. The *Eupatorium perfoliatum*, according to its mode of exhibition, is tonic, purgative, or sudorific. Its cold infusion is given in ague. In substance it is tonic. Its hot infusion is employed to produce vomiting and purging, and a weak infusion is sudorific. The *Cornus florida*, or dog-wort, is used in ague. The *Polygala senega* is employed by the Indians in the remission of fevers, and in some pulmonary complaints; it is also useful in amenorrhœa.

Mr Darling informs me that, for the first three or four days after delivery, Indian women drink an infusion of the inner bark of the pine, and after that an infusion of the inner bark of the balsam. Their idea is that this cleanses the uterus.

The Indians have great reluctance to give any information respecting the substances they use as remedies. They have great reliance on them, and on their native physicians, often thinking as much or more of them than of regular practitioners, at least in medical cases; in cases of accidents, they are generally glad to have assistance from white practitioners; but even in surgical cases, such as gun-shot wounds, some tribes, or parts of them who are less in the habit of meeting whites, have a superstitious objection to admit any interference by a white man.

*Physiology.*—In his physiology, as compared with a European, the North American Indian possesses much greater perfection in his senses of sight, hearing, and smell, and in his powers of observing and remembering natural objects; also, he has much greater ability to undergo long-continued fatigue in journeys, and to endure hunger.

In several parts of the country, at Penetanguishene, Manitoulin, Sault Ste Marie, or St Mary's, &c., I made inquiries on several points respecting the usual age at which menstruation begins and ceases, the usual age at the time of marriage,\* the average age of the mother at the birth of her first and last child,—and some kindred topics; but the difficulty of obtaining this kind of information can be understood only by those who have attempted it. Generally, the Indians do not know their own ages exactly, not within several years; but I believe that fourteen years is the usual age at which the menses appear. The menstrual flux is small in quantity, and seldom lasts more than two or three days. Parturition is very easy and expeditious; the lochial discharge ceases generally in less than ten days.

Children of an Indian parent on one side, and of a French or British Canadian on the other, are often or generally much finer and better-looking than either of their parents. I know a family where the father is a Scotch Canadian and the mother an Indian. There are three sons and five daughters; but no one would suppose that they were brothers and sisters. The sons, besides deriving their sex from their father, have also his ruddy European complexion, and form of features, hair, &c., and have not the least sign of Indian blood; the daughters, with their mother's sex, have acquired her reddish-dark complexion, broad countenance, dark eye and hair, and completely Indian appearance; and instances of this kind are not uncommon.

The population of the Indian villages and settlements where they attend more or less to agriculture, is slightly on the increase; the number of individuals composing tribes or bands who attend

\* In Canada, among the whites, I have known several instances where a female was married at the age of 14; and from 16 to 18 is very common.

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chiefly to hunting and fishing, is considerably on the decrease. It is unnecessary to add that, of the whole Indian population, there is an annual decrease. It is sometimes said that this gradual fading away of the Indian race is the consequence of the European cultivation of their soil, and of the introduction among them of ardent spirits. But the cause which is at the root of the whole evil is simply the demand in Europe for furs. Traders go among the Indians, and, for whiskey, obtain furs; the desire of the poor Indian for the fire-water induces him to kill animals at all seasons, so that many kinds are now scarce. Formerly, he hunted and killed animals merely according as the feeling of hunger induced him, or the necessity of providing clothing or moccasins\* (shoes) made him desirous of obtaining the animals' skins. Fire-water would have been unknown to the Red Man, had not the fur-trader found it his best exchange for articles of use or ornament for the ladies of Europe. After some years of reckless and indiscriminate hunting, a tract of country becomes nearly destitute of the various animals which are the objects of an Indian's chase, and this ground is consequently deserted by him. And it is chiefly on this deserted ground that the fields and farms of European cultivators are now encroaching.

The Indians are an exceedingly well-conducted and peaceable race; and at Manitoulin, in August 1845, where I saw about two thousand assembled;—a body composed of individuals from the far west and the distant north—from Lake Superior and Hudson's Bay,—the comfortable-looking Ottawa and Chippawa—the Pownatomic dressed in deer-skins—the slim and tall Mononomie—poorer Indians, from Hudson's Bay, clothed in miserable rabbit's skins, and some with an attire of extreme simplicity and scantiness,—all these various tribes conducted themselves fifty times better than the same number of Europeans would have done.

*Pathology.*—Small-pox, when first appearing among them, has been very fatal, whole tribes and bands having died.

They appear to suffer nearly as much as whites from ague and remittent fever.

In epidemic scarlatina, it appeared to me that the Indians were less susceptible of an attack than the whites. Scarlatina in Indians appeared to be much less severe, and much less frequently followed by glandular swellings and dropsy.

I have not seen goitre among them, although it prevailed among other races in the same neighbourhood.

An Indian bears accidents and surgical operations much better

\* This spelling agrees with the pronunciation. It is sometimes spelt *moccasin*. It resembles the ancient brogue of our Scottish Highlanders.

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than a European; he has less susceptibility of constitutional disturbance after them.\*

All the above differences come under the general rule that uncivilized races suffer less than civilized nations from mental and bodily ailments.

Among the Indians, there is very seldom seen any congenital bodily deformity; but during one of my visits to Manitoulin Island, on the 5th of August 1845, I was shown, by Surgeon Darling, a Chippawa boy, aged 4 years, who presented a remarkable example of congenital complete deficiency or absence of both eyeballs. The eyelids had a flattened appearance; the opening between them was very small, and no trace of an eyeball could be seen or felt; the interior was lined by a conjunctiva, which, at the time we examined it, was very red. The parents and the brothers and sisters of this unfortunate boy had nothing abnormal with regard to their eyes.

The Indians are much less subject to mental defects and diseases than nations living in a more "civilized" or artificial manner.

I must observe that if the reports from Messrs Darling and Digby had not been addressed to non-medical officials, they would, I have no doubt, have contained much additional information of great professional interest.

It would be an excellent arrangement, if each of the four surgeons employed in the Indian department sent, to the head-office in Montreal, yearly returns commencing on the 1st of January, giving the number of births and sexes; deaths, ages, and causes of death; diseases and results; and also the total number of the Indian population in their respective districts. Such reports would form a very interesting contribution to medical and national statistics.

I have been desirous of placing on record in this well-established Journal, these brief medical memoranda relating to the Indians, and I hope that they have proved interesting to the reader.

Montreal, Canada,  
August 1848.

ART III.—*Statistical Researches on the Diseases of the Ear.*  
By Dr WILLIAM KRAMER, Berlin (Beytrage zur Ohrenheilkunde. Berlin, 1845, Archives Generales, 1847, T. 75).

THE materials from which this report has been formed, are derived from 2000 cases, which have been examined in the most attentive manner by all the means of exploration at present in use;—for instance, *speculum auris*, catheterism of the Eustachian

\* Edinb. Med. and Surg. Journal, January 1846, p. 30.