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INDICATIONS OF ANCIENT CUSTOMS, SUGGESTED BY CERTAIN CRANIAL FORMS.

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Among the characteristic customs of greatest prevalence throughout this continent, none has atttracted greater attention than that of artificial cranial distortion. To all appearance, the civilized nations of Mexico and Peru had developed independent phases of progress in arts, science, and social policy, without mutual intercourse or any knowledge of each other. Nevertheless, we trace the singular practice of moulding the human head into abnormal forms, alike among the civilized races of Peru, the ancient lettered architects of Central America and Mexico, and among barbarous tribes both to the east and west of the Rocky Mountains. The earth-works of the Mississippi Valley mound-builders have been found to cover artificially flattened crania; and the student of American native civilization, as he turns from pondering over the marvellous bas-reliefs and hieroglyphics on the sculptured slabs of Palenque or Uxmal, is startled to find the very cranial forms and strange physiognomical contours of the architectural race of Central America reproduced among some of the most barbarous living tribes of Oregon and the Columbia River. But, now that the study of craniology has been carried out by many intelligent observers, the fact is becoming familiar to us, that artificial cranial deformation is no peculiarity of the American continent, either in ancient or modern times. The compressed crania of the Asiatic Macrocephali attracted the attention of Hippocrates five centuries before the Christian era; and Blumenbach, the foremost of European craniologists, figured in the first fasciculus of his "Decades Craniorum,"

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in 1790, an imperfect compressed skull, received by him from Russia, with the information that it was probably a Tartar, and which he designates an Asiatic Macrocephalus. Imperfect as were his data, his conclusion was probably just; as subsequent inquiry has led to the discovery of various examples of the same class of compressed and elongated crania on ancient historical sites in the Crimea, and around the shores of the Euxine.

In 1843, Rathke communicated to Müller's "Archiv für Anatomie" the figure of another skull, strikingly resembling the one previously engraved by Blumenbach. Like the former, it is very imperfect, but corresponds to it in exhibiting the same depression of the frontal bone.—This example is described by the author as having been procured from an ancient burial-place near Kertch, in the Crimea. And, in 1849, M. Rathke published a memoir, in which he investigated the subject more fully; and showed that the vicinity of Kertch had yielded other illustrations of the same remarkable artificially modified crania of the ancient world, corresponding to those of Peru and the tribes of North America bordering on the Pacific. In illustration of the origin of the Crimean Macrocephalic crania, M. Rathke draws attention to the notices, by Greek and Roman authors, of the ancient tribes who derived their name from the singular practice of elongating the head during infancy. Hippocrates, in his "De Aere, Aquis, et Locis," speaks of them as a people among whom "those are thought the most noble who have the longest heads." In this respect, the modern American flat-head tribes, as well as the older Peruvians, exhibit a remarkable correspondence in the ideas by which all have been actuated. Among the flat-head tribes, the compressed and distorted skull is the symbol of aristocracy; while the slaves of the tribe are rigidly precluded from giving the prized deformity to the heads of their offspring. Other distorted crania, found in the neighbourhood of Vienna, have been ascribed to the Avars or the Huns of Attila. But these have been made the subject of a curious commentary, singularly illustrative of the essential correspondence between the artificially modified crania of the Old and New World. Dr. Tschudi, the Swiss traveller, whose works on the "Antiquities and Ethnology of Peru" have justly attracted attention, published a memoir on one of the Austrian abnormal crania, in the interval between the first and second publications of M. Rathke, in which he maintained the identity of the Austrian and Peruvian skulls, and traced the origin of the former to the connection between Germany and Peru in the sixteenth century, when both were under the common rule of the Emperor Charles V. At that period, as he assumed, certain artificially compressed Peruvian crania had been brought over, along with other curious relics of the New World; and having been thrown aside, they thus turned up, some three centuries afterwards, to

baffle the speculations of modern science. Further discoveries, however, have sufficed to dispel this gratuitous assumption; and it is no longer doubted, that the remarkable abnormal skulls, both of Kertch and other localities along the shores of the Euxine and in the Valley of the Danube, confirm and illustrate the references by Hippocrates, Strabo, Pliny, and other early writers, to an Asiatic people among whom the very same practices prevailed as still form special characteristics of some of the north-west tribes of America, on the Columbia and Fraser Rivers and on Vancouver's Island.

More recently, the discovery of a skull with a very remarkable vertical occiput, rising almost abruptly from the *foramen magnum*, in an ancient subterranean quarry near the Damascus Gate of Jerusalem, has added a curious and unexpected confirmation of the Asiatic source of the compressed crania of Europe. This interesting example, obtained by Mr. J. Judson Barclay during his travels in the East, and deposited by him in the cabinet of the Academy of Natural Sciences of Philadelphia, has been made the subject of an ingenious and able treatise by Dr. J. Aitken Meigs,* who is led to refer it probably to an Asiatic people occupying the region around Lake Baikal, and on the highway of the migrating nations tending eastward towards the Okhotsk Sea, and the islands occupied by races common to the Old and the New World.

The inference suggested by such traces of ancient community of customs between America and Asia cannot fail to point to intercourse between the two continents, and to confirm the idea of those who believe in the common Mongolian characteristics of the American and Central Asiatic races. It is not, however, necessarily to be assumed on such a theory, that Asia, as the older continent, historically considered, contributed the singular custom of cranial deformation to the New World. On the Asiatic shores of Behring Straits, and throughout the intermediate islands of the North Pacific, the traces of migration from America to Asia are abundant; but no evidence points directly to the flow of a nomad current in the opposite direction within any historic period. Considering the very wide diffusion of the practice throughout Southern as well as Northern America, and the very partial character of its adoption in Asia, I am strongly inclined to regard it as one of the traces of ethnical influence contributed by America to Asia. This view of the question is replete with interest in relation to inquiries into the origin and sources of the peopling of the American continent; but other evidence of a like kind warns the inquirer of the necessity for a thorough appreciation of the comprehensive bearings of this class of evidence, before making it the

* Description of a deformed fragmentary skull found in an ancient quarry cave at Jerusalem. Proceed. Acad. Nat. Science of Philadelphia, September, 1859.

basis of any general deductions. It is with this subject of artificial compression of the skull, as with so many others, the more fully it is studied, novel illustrations appear in the most unexpected quarters; and what was once deemed peculiar to America is now found illustrated among the characteristics of many wide scattered races of ancient and modern times.

During a recent visit to Washington, I availed myself of the facilities afforded me by Professor Henry, the learned Secretary of the Smithsonian Institution, to examine with minute care the ethnological collections formed by the United States Exploring Expedition, illustrative of the manners, customs, arts, and ethnical characteristics, of the races on the Pacific coasts and islands. The collections include crania of various Indian tribes of North and South America, a number of compressed and greatly distorted Chinook and other flat-head skulls, as well as crania of Fiji, Kanaka, and other Pacific islanders. A renewed visit to the Mortonian collection at Philadelphia—already familiar to me by former study of the cabinets of the Academy of Natural Sciences there—afforded additional means of testing the extended diffusion of the practice of cranial deformation. Among the Fiji skulls in both collections, several examples exhibit the broad, well-rounded occiput, which is considered by the Fijians as a special beauty. But this is not an invariable characteristic even among that peculiar insular race. One male skull brought home by the United States Exploring Expedition (No. 4581) has the full, rounded form of the occiput well defined, presenting in profile a rotund development passing by a nearly uniform gradation into the coronal region. But, in another Fiji skull of the same collection,—that of Veindovi, Chief of Kantavu, who was taken prisoner by the United States ship "Peacock" in 1840, and died at New York in 1842,—the occiput though full, is slightly vertical. The occipital development of the Fiji cranium is the more interesting, as we are now familiar with the fact, that an artificially flattened occiput is of common occurence among the islanders of the Pacific Ocean. "In the Malay race," says Dr. Pickering, "a more marked peculiarity, and one very generally observable, is the elevated occiput, and its slight projection beyond the line of the neck. The Mongolian traits are heightened artificially in the Chinooks; but it is less generally known that a slight pressure is often applied to the occiput by the Polynesians, in conformity with the Malay standard," * Dr. Nott, in describing the skull of a Kanaka of the Sandwich Islands who died at the Marine Hospital at Mobile, mentions his being struck by its singular occipital formation; but this he learned was due to an artificial flattening, which, the islander had stated to his medical attendants in the

* Pickering's Races of Man, p. 45.

hospital, was habitually practised in his family.* According to Dr. Davis, it is traceable to so simple a source as the Kanaka mother's habit of supporting the head of her nursling in the palm of her hand. † Whatever be the cause, the fact is now well established. The occipital flattening is clearly defined in at least three of the Kanaka skulls in the Mortonian collection: No. 1300, a male native of the Sandwich Islands, aged about forty: No. 1308, apparently that of a woman, from the same locality; and in No. 695, a girl of Oahu, of probably twelve years of age, which is marked unsymmetrical, and with the flattening on the left side of the parietal and occipital bones. The Washington collection includes fourteen Kanaka skulls, besides others from various islands of the Pacific, among which, several examples of the same artificial formation occur: *e. g.*, No. 4587, a large male skull, distorted and unsymmetrical; and No. 4367, (female?) from an ancient cemetry at Wailuka, Mani, in which the flattened occiput is very obvious.

The traces of purposed deformation of the head among the islanders of the Pacific have an additional interest in their relation to one possible source of South American population by oceanic migration suggested by philological and other independent evidence. But this is a subject which would tempt me away from the present inquiry, and demands much ampler space than could now be allowed for its consideration.‡ Among the causes above assigned for the origin of the Kanaka flattened occiput, is one suggestive of its origin from influences which, though artificial, are not traceable to design; and to like undesigned artificial causes have been traced some of the peculiarities even of ancient British crania. The importance of this element of artificial disturbance of ethnical forms of crania is only now being fully appreciated. To it I believe to be traceable some of the predominant peculiarities which have suggested the idea of a homogeneous cranial type characteristic of the whole native population of this Western Hemisphere, and which guided the distinguished American craniologist, Dr. Morton, when describing the celebrated Scioto-Mound skull, in his selection of it as a perfect type of the native American skull-form. "This," he remarks in his "Catalogue of Human Crania," "is, perhaps, the most admirably formed head of the American race hitherto discovered. It possesses the national characteristics in perfection, as seen in the elevated vertex, flattened occiput, great inter-parietal diameter, ponderous bony structure, salient nose, large jaws, and broad face. It is the perfect type of Indian conformation, to which the skulls of all the

* Types of Mankind, p. 436.

† Crania Brittannica, Dec. iii. pl. 24 (4).

‡ The author has discussed some of the points referred to, in his Prehistoric Man, vol. ii. chaps. xxii and xxv.

tribes from Cape Horn to Canada more or less approximate." On visiting Philadelphia some years since, with a view to the examination of the Mortonian collection, I made the ancient mound crania a special object of study. But the Sciota-Mound skull, which forms one of the most prized treasures of the collection, was not then included among the crania of its class; and it was not until my recent visit that I had an opportunity of studying the original.

The result of this examination was to satisfy me that the remarkable form and proportions of that skull are much more due to artificial influences than I had been led to suppose from the views published in the "Smithsonian Contributions to Knowledge."* The vertical view, especially, is very inaccurate. In the original, it presents the peculiar characteristics of the truncated form; passing abruptly from a broad flattened occiput to its extreme parietal breadth, and then tapering with slight lateral swell until it reaches its least breadth immediately behind the external angular processes of the frontal bone. The occiput has been subjected to the flattening process to a much greater extent than is apparent from the drawings; but, at the same time, it is accompanied by no corresponding affection of the frontal bone, such as inevitably results from the procedure of the Chinooks and other flathead tribes, among whom the desired cranial deformation is effected by bandages crossing the forehead, and consequently modifying the frontal as much as the parietal and occipital bones. On this account, great as is the amount of flattening in this remarkable skull, it is probably due solely to the undesigned pressure of the cradle-board acting on a head of remarkedly brachycephalic proportions and great natural posterior breadth. The forehead is fully arched, the glabella prominent, and the whole character of the frontal bone is essentially different from the Indian type. The sutures are very much ossified, and even to some extent obliterated. So early as 1857, when discussing Dr. Morton's theory of one uniform cranial type pervading the whole ancient and modern tribes of North and South America, with the single exception of the Esquimaux, I remarked, "I think it extremely probable, that further investigation will tend to the conclusion that the vertical or flattened occiput, instead of being a typical characteristic, pertains entirely to the class of artificial modifications of the natural cranium familiar to the American ethnologist, alike in the disclosures of ancient graves and in the customs of widely separated living tribes."†

One result of this confirmation of an earlier opinion was to direct my

* Ancient Monuments of the Mississippi Valley, pl. xlvii. and xlviii.

† Edinburgh Philosoph. Journal, N.S., vol. vii. p. 24; Canadian Journal, vol. ii. p. 406.

attention with renewed interest to the traces of similar undesigned artificial conformation in ancient British crania; and it will not, I venture to hope, prove uninteresting to the antiquaries of New England to follow in the footsteps of some researches, by means of which the skulls recovered from Indian graves of this continent throw light on the habits and social life of the British Islands in pre-historic centuries. In illustrating this, it will give definiteness to the subject to refer to a specific example of the ancient British cranium in which occipital conformation is apparent, traceable, as is supposed, to the same source as the corresponding form of many American Indian skulls.

In the month of May, 1851, I learned that a rude stone cist, or primitive sarcophagus, had been accidentally discovered in trenching a garden a few miles from Edinburgh, and immediately proceeded to the spot in company with several other members of the Society of Antiquaries of Scotland. At a slightly elevated spot, which probably marked the site of the ancient barrow under which a chief had been entombed, a shallow cist was brought to light, formed of unhewn slabs of sandstone, enclosing a space nearly four feet long by two feet broad. A large slab covered the whole, and projected over the sides, so as effectually to protect the sepulchral chamber from any infiltration of earth. It lay in a sandy soil, within little more than two feet of the surface; but it had probably been covered until a comparatively recent period by a greater depth of earth, as its site, which was higher than the surrounding surface, possibly preserved the traces of the nearly levelled tumulus. Slight as this elevation was, it had proved sufficient to prevent the lodgement of water; and hence the cist was found perfectly free from damp. Within this, a male skeleton lay on its left side. The arms appeared to have been folded over the breast, and the knees drawn up so as to touch the elbows. The head had been supported by a flat water-worn stone for its pillow; but from this it had fallen to the bottom of the cist, on its being detached by the decomposition of the fleshly ligatures; and, as is common in crania discovered under similar circumstances, it had completely decayed at the part in contact with the ground. A portion of the left side is thus wanting; but, with this exception, the skull was not only nearly perfect when found, but the bones are solid and heavy; and the whole skeleton appeared to me so well preserved as to have admitted of articulation. Above the right shoulder a neat earthen vase had been placed, probably with food or drink. It contained only a little sand and black dust when recovered, uninjured, from the spot where it had been deposited by affectionate hands many centuries before; and is now preserved, along with the skull, in the Museum of Antiquities at Edinburgh.

The skull discovered under such interesting circumstances, within sight of the Scottish capital, and in the rude simplicity of its primitive sepul-

ture, connecting so curiously the present with a remote past, exhibits a peculiar flattening at the back of the head, such as, in many Indian skulls, is clearly traceable to the use of the flat cradle-board in infancy. This source of cranial conformation did not escape the sagacious and observant eye of Dr. Morton, in relation to the peculiarities of American typical skull-forms; though the pre-occupation of his mind with the idea of one universally predominant American type prevented him giving full value to its influence. When commenting, in his "Crania Americana," on the characteristic peculiarities of the Peruvian skulls, he notes in reference to them, "These heads are remarkable, not only for their smallness, but also for their irregularity; for, in the whole series in my possession, there is but one that can be called symmetrical. This irregularity chiefly consists in the greater projection of the occiput to one side than the other; showing, in some instances a surprising degree of deformity. As this condition is as often observed on one side as the other, it is not to be attributed to the intentional application of mechanical force: on the contrary, it is, to a certain degree, common to the whole American tribes, and is sometimes, no doubt, increased by the manner in which the child is placed in the cradle."

By the mode of nursing the Indian pappoose, the soft bones of the skull are subjected to a slight but constant pressure in one direction during the whole period of suckling; which, among a nomad people, is protracted to a much longer period than is usual among civilized races in a settled condition of life. To this, I have no doubt, is to be ascribed certain familiar occipital forms in the Indian skull, traceable among tribes who never purposely employ any artificial means for modifying the shape of the head; and the same cause tends to increase the brachycephalic proportions, or short longitudinal diameter, as compared with the parietal breadth which is characteristic of many Indian heads. But it now becomes obvious, that a like cause has tended to the exaggeration of the same abbreviated longitudinal diameter in ancient European brachycephalic crania. Dr. L. A. Gosse has not only illustrated this in his "Essai sur les Déformations artificielles du Crâne." but incidentally notices the peculiarity referred to in Scottish and Scandinavian skulls, and traces it to the same probable source of the cradle-board, His remarks are, "Passant dans l'ancien continent, ne tardons-nous pas à reconnaître que ce berceau plat et solide y a produit des effets analogues. Les anciens habitants de la Scandinavie et de la Calédonie devaient s'en servir, si l'on en juge par la forme de leurs crânes."

Dr. Thurnam and Dr. J. Barnard Davis, the learned authors of the "Crania Britannica," also fully recognize the source of deformation as one which has affected an important class of crania recovered from ancient British barrows. Mr. Thomas Bateman ascribes the flattened

occiput observed by him in certain skulls recovered from the sepulchral mounds of Derbyshire, and described in his "Ten Years' Diggings in Celtic and Saxon Grave-hills," to the same cause; and indeed this source of certain ancient skull-forms, and the inference deducible from it, of the use of the cradle-board among prehistoric races of Britain and the north of Europe, may now be considered as generally recognized among European craniologists. Nor is the fact of slight importance; for it thereby becomes obvious, that a class of variations in the form of the human head, which becomes more comprehensive as attention is directed to it, is wholly independent of congenital or inherited characteristics.

It is in this direction that the importance of the truths resulting from the recognition of undesigned artificial causes, affecting the forms alike of European and American crania, chiefly lies. The contents of early British cists and barrows prove that the race with which they originated was a rude people, ignorant, for the most part, of the very knowledge of metals, or, at best, in the earliest rudimentary stage of metallurgic arts: they were in as uncivilized a condition as the rudest forest Indians of this continent. To prove, therefore, that, like the Red-Indian squaw, the British allophylian, or Celtic mother, formed the cradle for her babe of a flat board, to which she bound it, for safety and facility of nursing, in the vicissitudes of her nomad life, though interesting, like every other recovered glimpse of a long-forgotten past, is not, in itself, a discovery of great significance; but it reminds us how essentially man, even in the most degraded state of wandering savage life, differs from all other animals. The germs of an artificial life are there. External appliances, and the conditions which we designate as domestication in the lower animals, appear to be inseparable from him. The most untutored nomads subject their offspring to many artificial influences, such as have no analogy among the marvellous instinctive operations of the lower animals. It is not even unworthy of notice, that man is the only animal to whom a supine position is natural for repose; and with him, more than any other animal, the head, when recumbent, invariably assumes a position which throws the greatest pressure on the brain-case, and not on the malar or maxillary bones. Without, therefore, running to the extreme of Dr. Morton, who denied, for the American continent at least, the existence of any true dolichocephalic crania, or indeed any essential variation from one assumed typical form, it becomes an important point for the craniologist to determine, if possible, to what extent certain characteristic diversities may be relied upon as the inherited features of a tribe or race, or whether they are not the mere result of artificial causes originating in long-perpetuated national customs and nursery usages.

The Scioto-Mound skull illustrates that peculiar occipital conformation, produced by artificial causes, to which I have given the name of the

"vertical occiput." But there is another form equally common in American crania, and now recognized as characteristic of certain British skulls, where the compression affects the parietal bones along with the upper portion of the occipital bone, and produces an oblique flattening extending towards the crown of the head. This, Dr. J. Barnard Davis regards as something essentially distinct from the vertical occiput, and designates it "parieto-occipital flatness." The term correctly expresses the form, which is of common occurrence in Indian skulls, and is in reality the most inartificial of all the results of the undesigned pressure of the cradle-board. This will be understood by a very simple experiment. If the observer lie down on the floor, without a pillow, and then ascertain what part of the back of the head touches the ground, he will find that it is the portion of the occiput immediately above the lambdoidal suture, and not the occipital bone. When the Indian mother places a sufficiently high pillow for her infant, the tendency of the constant pressure will be to produce the vertical occiput; but where, as is more frequently the case, the board has a mere cover of moss or soft leather, then the result will be just such an oblique parietal flattening as is shown on a British skull from the remarkable tumulus near Littleton Drew, Wiltshire, engraved in the "Crania Britannica," and in various other examples from English and Scottish barrows.

The distinct forms are strikingly illustrated, as occurring in American crania, in two examples selected by Dr. J. C. Nott as illustrations of his "Comparative Anatomy of Races," and produced in the "Types of Mankind," "to show that the type attributed to the American races is found among tribes the most scattered, among the semi-civilized and the barbarous, among living as well as among extinct races; and that no foreign race has intruded itself into their midst, even in the smallest appreciable degree.* In a communication on the subject of the American cranial type, submitted by me in 1857 to the American Scientific Association, I drew attention to this supposed correspondence between the Scioto-Mound skull and that of a Cherokee chief who died a prisoner at Mobile in 1837, and remarked,—

"In this example, in so far as can be judged from the comparison of both by drawings in profile without precise measurements, the points of agreement are indisputable, though even here amounting to no more than an approximation. The vertical occiput of the ancient skull—more markedly vertical in the original drawing than in the small copy—is only partially represented in the other. The square form of the ancient profile in the coronal region becomes conoid in the modern one; and the intersecting line drawn through the meatus auditorius externus shows a very partial reproduction in the modern example of the remarkable pre-

* Types of Mankind, p. 442.

ponderance of posterior cerebral development, which, if not produced by artificial means, is the most singular characteristic of the ancient head."*

The transmission of a copy of the paper referred to led to a friendly correspondence on the subject with Dr. Nott; and in one of his letters, in which he frankly owns that there are so many exceptions to Morton's Indian skull-type as to make him readily accept the opposite conclusions to which I had been led, he further adds, "According to my own observation, the characteristic of the Indian skull is not so much a flattening of the occiput proper as of the posterior part of the parietal, together with the upper angle of the occipital."* This is well illustrated in the skull of the Cherokee chief referred to, which was subsequently presented by Dr. Nott to the Natural-History Society of Boston, where I had an opportunity of examining it.

If the influence of undesigned artificial compression, thus slightly illustrated in the foregoing remarks, affects the skull forms of this continent to as great an extent as my observations have led me to believe it does, a just estimation of its effects must enter into all attempts at ethnical classification. The determination of the race of the mound-builders, for example, and the attempt to trace out their relationship to other ancient American races, must be based on much more carefully eliminated data than has hitherto sufficed to establish for them a Peruvian or other origin. But while the traces of artificial modification in the Scioto-Mound skull detract from the value of supposed analogies of form previously deduced, they lead to other conclusions illustrative of habits and customs of the ancient race, and may prove of great importance in future comparisons, when a more adequate number of specimens of genuine mound crania has been brought to light.

Meanwhile, the illustrations derived from the more general bearings of this subject, in relation to aboriginal races of Europe, are replete with interest. The philological investigations of European linguists, consequent on the discovery of the intimate grammatical affinities between the principal languages of Europe and the Sanscrit of the Indian Vedas, led to the ingenious Finnic hypothesis of Arndt and Rask, which assumed, that in the Finns, Basques, and other supposed Turanian races of Europe, we have the detached fragments of what once constituted a homogeneous population occupying the whole European area prior to the intrusion of the Aryan nations. Since then, other discoveries, of a very different class have tended to familiarize the mind with the idea of the occupation of Europe by races altogether distinct in character from any of the Aryan nations. In the drift of France and England, the startling discoveries of recent years reveal the traces of human ingenuity

* Edin. Philosoph. Journal, N.S, vol. vii. p. 17.

and mechanical skill lying alongside the bones of fossil mammals, hitherto regarded as extinct prior to the human era. The full significance of such disclosures has yet to be determined: but they unquestionably point to the existence of an aboriginal population in the north of Europe, compared with which the eldest of historical nations is altogether modern; and they show that the arts of the aboriginal race were even ruder than those of the American forest Indian. Some of the ancient British crania have been recovered from peat-mosses, at great depths in alluvial strata, or in the excavation of deep mine shafts; and undoubtedly belong to very remote periods. Others, however, have been obtained from sepulchral mounds, chambered galleries, and other places of regular sepulture, some of which are probably not much older than the era of the Roman invasion. In instituting a comparison between these and the crania of the American mounds, and tracing analogous habits, and modes of nurture, in races no less widely served by space than by time, it is impossible to evade the interests thereby suggested. It seems, indeed, as if the European colonists of America had abruptly displaced a condition of social life in one of its early stages of developement, such as Europe passsed through more than two thousand years before. Metallurgic arts, picture-writing, architecture, and all the elements of matured civilization, were but in their germ, and, with the great majority of the aborigines on the northern part of the continent, scarcely even manifesting the germinal stage. The more minutely the attention of the archæologists and geologists of Europe is attracted to the traces of a long-extinct primitive condition of life there, the greater will be the value attached to our studies, in this New World, of the arts, the customs, and the social habits of its aborigines, among whom we witness, in the living present, so much of what we are learning to perceive constituted the social life of prehistoric Europe.

University College, Toronto, April 7, 1863.

THE SPUR OF TONASCO.

Miss Vinreth was vain. That perhaps was not to be wondered at, for vanity is a feminine quality; probably we only admit the truth if we say an essentially feminine quality; the men say exclusively so; and if we do not quite agree with them, or if we think that their assertion disproves itself, it is yet scarcely worth while to contradict them.

Perhaps Miss Vinreth had some cause. She was young, handsome, and rich, three titles to admiration and favour of which the possessor is seldom ignorant. She had not passed her twenty-third birthday; her mirror showed her a face and figure of which it would have been mock modesty to deny the beauty; and her banker's book displayed a result equally satisfactory. She was, moreover, entirely and independently mistress of her fortune and herself. Her mother had died at her birth; and her father had followed his wife before the little Winifred had learned to lisp his name.

Miss Vinreth lived at a place called from its situation "The Spur." The house stood on the end of a long point of land running out into Lake Tonasco. On either side this point the lake stretched away by curved wooded shores, by deep bays, and rocky inlets, for a distance of some four or five miles. The dwellings on each side were but a mile apart by water; but to reach from "The Spur," by land, the house which stood on the opposite shore, you must have ridden six miles round.

Miss Vinreth did not live alone. When, at the age of nineteen, she left school, and found herself, as I have said, young, rich, handsome, and unprotected, it was represented to her that it was not consistent with the received opinions of society that she should do so. Miss Vinreth smiled scornfully. "Does society think me incapable of taking care of myself?" she said. But she had not passed five years at school to no purpose. She knew that against the fiat of the world there is no appeal. So she summoned to her side, as *chaperon* and duenna, the widow of a cousin of her father's, some eleven times removed; whom, from her knowledge of the qualities she possessed and did not possess, Miss Vinreth believed likely to be as little disagreeable as possible in that capacity. This lady, Mrs. Marsdale by name, who was of an amiable disposition and yielding temper, made a very agreeable companion. She came, at the call of her young relative, from a secluded home in the mountains, and for all the check she exerted over Miss Vinreth's ways or movements, might as well have remained there. Under the guardianship of this peaceful dragon, Miss Vinreth passed three years of as perfect freedom as though she had remained alone; but society was satisfied, and Miss Vinreth congratulated

herself to think how, in her first transaction with it, she had outwitted the world.

I have said that Miss Vinreth possessed in an eminent degree the feminine quality of vanity; but she also possessed other qualities by no means feminine. She was selfish, and she was unforgiving. To sacrifice her own good or pleasure for that of another would for her have been an impossible thing; and to have injured her would have been to lay up an account to be paid, with heavy interest, some day.

Nevertheless, Winifred Vinreth was courted and admired. When a girl can flash such a pair of eyes, and drive such a pair of horses; when her voice and the contents of her purse are musical alike; when she is romantically Arcadian in tastes, and yet has half a million of dollars to fall back on when tired of rusticity; and when, though her temper may not be perfect, her cook is; people are not apt to be critical. "She was a little vain," they admitted, "perhaps rather too high spirited and proud; *but then*, poor thing, she had no mother, she would settle down in time. She certainly liked admiration; *but then* she had a right to expect it, she would have had enough by and by. She was no doubt fond of her own way; *but then* her way was seldom wrong, and she would learn to yield some day." So they smoothed over the faults they could not help seeing, and yet were unwilling to see. Miss Vinreth heeded no one, and went her own course. She was a beautiful and gracious Juggernaut, who, though she trampled over feelings, hearts, and prejudices by the score, did so with smiles.

Miss Vinreth spent three summers roving from one watering-place to another, three winters at her house in town. Then she grew tired of seeing always the same places and the same people, and longed for something new. Summer was approaching, and her soul fainted at the idea of resorting to the well known scenes, and enjoying (?) the worn out pleasures of the year before. She did not wish for a new companion, because she knew that in that respect it was not probable she would change for the better; but she wanted a new residence, so she entered into a negociation with one whose business it was to minister to such wants, the result of which negotiation was that Miss Vinreth came into possession of "The Spur." She wanted to avoid old acquaintances, so she resolved to plunge at once into the solitude of Tonasco. She wanted a new sensation, so she fell in love.

Had she done so according to Celia's prescription, it would have been well enough; but it was not in Miss Vinreth's nature to "make sport withal." She loved, as she did most other things, with her whole heart. It is the fashion to describe as heartless those whose hearts do not happen to be good; this is a mistake. There may be, and often is, more of an

evil heart than of a good one. Miss Vinreth had a heart, quick with passionate life and strength. Unfortunately for herself and others she gave it all away; and more unfortunately still, she chose Harold Lazenby to whom to give it.

Harold Lazenby had been for some time in the train of the heiress, and had of course like the rest of her admirers, been lavish of compliments and devotion. He thought her a charming woman, a fine girl, and all the rest of it, but was very far from sharing the intense feeling to which his thoughtless attentions had given rise in her. Those attentions, the same she received from others, and which in them she knew meant nothing, assumed, directly she loved Harold, deep significance. The words of compliment and flattery which every man thinks he has a right to address to every pretty woman, seemed to her the true breathings of deep affection; that polite service and attendance on her wishes, which has been, since its introduction in the days of chivalry, considered as the homage due to the sex, appeared in her eyes to spring from the watchful care of love. She waited for him to speak plainly, but she waited in vain; till at last in endeavouring to find a cause for his silence she believed she had hit on the true one. Harold's fortune, though ample, was less than her own; he scrupled to ask the hand of the heiress from fear that his motives might be mistaken. It depended on her to show how she believed in his sincere affection and to dispel his needless fear. The thought does not say much for Miss Vinreth's diffidence, but, as has been already said, she was vain. She could not conceive that any one whom she honoured with the bestowal of her affection could be blind to, or ungrateful for, the gift.

Thus it came to pass that both were under a mistake. Miss Vinreth believed that Harold Lazenby was, in effect, her betrothed lover; that he had earnestly sought and won her heart, giving in return his own; that but the last words needed to be spoken, and that those were only withheld from the nobleness of her lover's mind. Mr. Lazenby, on his part, thought it a pleasant thing to be a favoured admirer of Winifred Vinreth; he enjoyed greatly her lively society, her talented conversation, and her brilliant wit. He even thought that by and by, when he was tired of his liberty, and inclined for quiet and a wife, that Winifred Vinreth might be his choice. You perceive how very far he was from being in love with her; and equally distant from his mind (for Miss Vinreth in the midst of her vanity was proud,) was the suspicion that she was deeply and seriously in love with him.

Miss Vinreth found that her wishes were incompatible. Her love of retirement and her desire for Harold Lazenby's society could not be indulged at once. The solitude of Tonasco would now no longer be

delightful to her; Mr. Lazenby must be her guest, and as he could not be so alone, she must have other guests as well. She changed her opinions and plans; she had formerly said a lonely place was just what she desired because she did not wish for society; she now declared that loneliness was of no consequence because she could fill her house with visitors. So she did. She found among her hundred friends half a score who thought such a way of passing the summer would be delightfully new, and took them with her to Tonasco.

It had been represented to her that she could not at once enter on possession of "The Spur." It was but a farmhouse, very much out of order, would take some time to put in thorough repair; but Miss Vinreth was not celebrated for her patience, and not inclined to wait "some time." By the month of August, she was told, the place would be ready; but by that time the summer would be nearly gone, so she sent down an army of servants and workmen who soon made the interior of the house habitable and home-like. The grounds did not matter; they could be better attended to under her own eye; so while June breezes rustled the leaves, and June sunshine gleamed over wood and water, Miss Vinreth took up her abode at Tonasco; heedless that burdocks still flourished round the fences, and mullions and whiteweed grew up to the door.

Here for a fortnight she and her friends enjoyed to the fullest extent all the pleasures of solitude. No one of their own station did they see. They rode, they drove, they fished in the lake, they bathed in its waters, and agreed that they had never before known how delightful was a country life. Miss Vinreth provided all things necessary for their amusement; and for her own, provided—a boat.

A small boat, only capable of holding two persons; a light fragile thing, intended only for a fair-weather sea. Miss Vinreth had always been fond of the water, and in this pretty toy, escorted by some skilful pilot, Mr. Lazenby generally, as he was most skilful of all, she loved to float on the placid lake, sometimes in idleness, sometimes condescending to take the oars. Going out one evening, she remarked that baling the water over the side of the boat had disagreeably damped the cushion. "That is easily prevented," said Mr. Lazenby. "It is troublesome, too, to have to bale it out every time, and yet, till you have a boat-house, water must be left in the boat. But we can bore a hole in the bottom to let out the water, and plug it up when we put to sea. It is often done." So on their return an auger was sent for, and the business completed at once. "Is there no smaller one than this?" said Miss Vinreth. "This will make a very large hole." "All the better," said Mr. Lazenby. "We will make the plug to correspond, and the draining of the boat will take the less time." So the matter was settled, and the plan succeeded admirably, as Miss Vinreth's dress never got wet again. She enjoyed

her life at Tonasco exceedingly, though perhaps she was not quite so happy as she had expected. She was still waiting for Harold Lazenby to say, "I love you; be my wife." And she still waited in vain.

The end of the second week brought a change; she added a friend to her list of friends. When Tonasco had been first mentioned to Mrs. Marsdale, she had said, "Tonasco! how fortunate, I have a cousin living on its shores. He has a daughter who will be a nice companion for you, my dear. When I last saw her she was a pretty sweet child, but she cannot be a child now. It is a long time since I saw George Sandys. "When they arrived at "The Spur" they found that the house of Mr. Sandys was the one immediately opposite on the other shore; but Miss Vinreth showed no disposition to make the acquaintance of the pretty sweet child." She put off the visit on one excuse or another, until at last chance effected the introduction. A party of three or four, Miss Vinreth among them, had crossed the lake one evening, and landed, when a light shower of rain coming on, they took refuge under a tree. Here they were presently joined by a drenched young lady in a garden hat, who invited them to the safer shelter of the house. The house proved to be that of Mr. Sandys, and the young lady Lucy Sandys, not indeed a child, but a lovely girl of seventeen. "A pretty baby face, sweet temper, and no mind," was Miss Vinreth's decision. Mr. Lazenby looked, admired, and said nothing. Miss Vinreth took a fancy to Lucy on the spot, kissed her at parting, and invited her to come the very next day to "The Spur. So the acquaintance with Lucy Sandys was begun. How much did either foresee how it was destined to end?

The friendship with Lucy Sandys ripened rapidly. From her relationship to Mrs. Marsdale she was much at "The Spur," where her sweet face, gentle manners, and amiable temper, soon made her a favorite with all. Miss Vinreth was delighted with her new toy, and kissed and fondled the timid Lucy to an extent which sometimes overpowered that little maiden, who was not used to it. She lived alone with her old father, who, though he only existed in his child, was not much given to caresses. Miss Vinreth made ample amends for all neglect in others. For a whole fortnight her favor lasted; it budded, flourished, blossomed into full blown beauty—then it faded. Miss Vinreth woke to the truth, and saw, too late, what she had done.

For a long time she would not believe it; she put away the idea from her as she would have rejected a poisoned draught; it could not be true. Was he not her's? Her's by every claim and title? Had he not won her heart wholly and entirely, and professed equal love in return? Was he, Harold Lazenby, to dare to trifle thus with her? And was she, Winifred Vinreth, with her beauty, her wealth, and her strength of pas-

sion, to be forsaken and betrayed, for the sake of Lucy Sandys' brown curls and baby face?

So she thought in her burning indignation, as day by day the truth became more plain. He, day by day, Harold Lazenby, all unconscious of the storm he was fast raising, sank deeper and deeper in the "strong toil of grace," woven by Lucy's brown tresses and innocent smiles. He congratulated himself now, that much as he had admired Miss Vinreth, he had never committed himself to anything positive; that he had never, in his attentions, exceeded permissible bounds, and was free. Alas! how often is this the case! How little do men think, or thinking, how little do they care, what they do? So that they say, "So far and no further; so that they just stop short of that point where the censure of the world would overthrow them; all the rest is theirs. Little matter if they possess a woman's every thought, so that they can "*honorably*" say: "She is not bound to me." Little matter how they engage her heart, if they leave free her hand. Oh, those destructive attentions and flirtations! Oh, those wretched understandings and half engagements! What in this world has caused so much mischief, been productive of such misery, as they?

Not that I mean to say the men are alone to blame; they are deceived in their turn sometimes; but they have more power to avoid the danger, inasmuch as they must make the first advance. Most people go through some such trial, and most people survive and in a measure forget it; but there are exceptions to every rule. Here and there a man's heart breaks; (we hear enough of it then, but who keeps count of the women's broken hearts?) Here and there a woman is found, whose passion overcomes her sex's attributes of gentleness and patience, and also avenges her wrongs. Such a one was Miss Vinreth. Her undisciplined and passionate soul rose up in wild rebellion at the injury inflicted on her; and while her love for Harold was not one jot abated, on the innocent and unconscious girl who had supplanted her, she vowed revenge. She was a Cleopatra in the fervency of her affection, and in her jealous wrath.

It is not a pleasant occupation to stand by and watch the gradual but sure withdrawal of the affections of one you have believed yours only. It is not agreeable to witness the bestowal on another of all the devotion and the tenderness you have been accustomed to consider as exclusively your own. Yet, this, for three weeks, became Miss Vinreth's daily task. In all her passion and indignation she preserved her self-control; she knew that if she once betrayed her feelings, her already almost hopeless cause was lost. She could break with Lucy; so she continued, (though her fondness had departed, which perhaps Lucy did not much regret,) to play the polite hostess during her visits at "The Spur." These were frequent as ever; the house was gay, Lucy was young, and liked this,

her first experience of gaiety. Mrs. Marsdale was kind, and all the guests were attentive and goodnatured to the simple and lighthearted girl; but above all, and totally innocent of all wrong therein, she was happy in her growing, though as yet unconscious, love for Harold, and in his for her. Miss Vinreth bore it all in silence. Ever on the watch for some fresh food for her bitter jealousy, her passion tost heart preyed upon itself; every day she became more certain of her misery, more indignant at her wrongs, and looked on Lucy with a deeper hate. She believed that, could Lucy be removed, Harold would return his allegiance to her, ignorant that she had never occupied the place that Lucy now filled; but in the mean time she almost gave up hope, as she saw that day by day his words to her grew colder; that day by day the glances he bestowed on Lucy Sandys became more frequent and more warm.

July drew to a close and brought no change. Miss Vinreth's infatuated hopes revived. She saw that nothing definite had as yet passed between Mr. Lazenby and Lucy; in the perfect candour and innocent confidence of the latter, Miss Vinreth's experience could read that she had not yet fathomed her own heart, and was ignorant of the cause that suffused her life with such a rosy glow. Oh! if she could only separate them before it was too late! She racked her brain for a chance which offered some probability of success. She would have left "The Spur," but she feared partly that her motives might be suspected, and partly that Harold, who was now a frequent guest of Mr. Sandys, might choose to remain at Tonasco. She could not run the risk; she must remain. Then it struck her that perhaps Mr. Lazenby was endeavouring to pique her into jealousy, and in return she established a mock flirtation on her own part, to no purpose. She gave up in despair, and waited for the crisis she knew must come, each day with fiercer passion, and deeper wrath. Passion none the less fierce, wrath none the less deep, that it was unsuspected and concealed with smiles.

The crisis came at last; not, however, as she had expected. Harold Lazenby revealed his love, not to Lucy Sandys, but to her.

It was a warm evening, and several of the party were wandering through the wood which covered the greater part of "The Spur." A rough ragged wood it was, full of brushwood, stumps of trees and uncleared copse, with here and there an inviting circle of soft green turf, like a play-room for the elves, In one of these they had all seated themselves in happy idleness, when Harold gathered from the remains of a felled tree, some leaves of vivid red.

"Oh how lovely!" exclaimed Miss Vinreth. "What can they be?"

"Maple," said one. "Virginia creeper," suggested another. "Ivy," added a third.

"It is too early for maple, ivy does not grow here, and the leaf is not in the least like Virginia creeper," said Miss Vinreth, disposing of all three. "But they are most beautiful. What can they be?"

"They are oak leaves," said Lucy Sandys, quietly.

"Oak leaves, you little goose!" said Miss Vinreth rudely. Who ever heard of scarlet oak leaves, I should like to know?"

"I think you will find them so. I know them well."

"I am sure they are not. Mr. Lazenby, what is, or rather *was*, that tree?"

"Miss Sandys is right; it is the stump of an oak tree. I have often found these red leaves myself, growing from the remains of both oaks and elms, after the tree has been felled."

Miss Vinreth bit her lip, mortified at this trifling defeat. Mr. Lazenby twisted the leaves into a wreath, and laid them with great affection of ceremony on her hair; but they did not look well.

"Your hair is too light, my dear," said Mrs. Marsdale. And Winifred saw that Harold thought so too.

"Take them off, then," she said impatiently, tossing them on the ground. Mr. Lazenby raised them, and imprudently transferred them them to Lucy's dark brown curls. There was no doubt that they looked well there; and Miss Vinreth, out of all patience, pettishly rose and turned towards home.

The rest followed her. Harold saw that she was annoyed, and remained by her side, while Lucy walked a few steps in advance, her lovely laughing face upturned to the person beside her, and the scarlet leaves still dropping from her hair.

"She is very pretty," said Miss Vinreth to Harold. "Do not you think so?"

"Most beautiful!—that is—rather so," he replied.

Winifred shivered and turned white. "Pretty girl and pretty name," she continued, "Do you not think Lucy Sandys a very pretty name, Mr. Lazenby?"

"Not particularly. They do not go well together."

She forgot her self-command. "Perhaps you would prefer Lucy Lazenby?" she said, with a laugh. A laugh to hear which was a warning. He did not answer, but he turned to look at her, and their eyes met.

Not another word was spoken, there was no need. That look told all on both sides, and Winifred knew the end was come. She saw that he was aware she had discovered his secret; she read equally plainly that he had found out her own.

"There is a thunder storm coming on Miss Vinreth, we had better return."

It was a sultry August evening, and they were taking their last ride. It was three days after the scene of the oak leaves, and Mr. Lazenby had announced that important business demanded that he should next day leave "The Spur." She knew it was an excuse; she knew he went only to leave her; she knew that once gone she should never see him more, and deep and wild as her love and passion had long been, they had never been as now.

"Yes," she said, glancing at the sky. "I think it is time."

It was time indeed. Solid leaden clouds were rolling up from every quarter of the heavens, and distant mutterings gave warning of the coming storm. They turned their horses heads, and never drew bridle till they plunged into the dark shadow of the wood that lay between them and home.

In a lonely side-path they came suddenly on Lucy Sandys, alone, who uttered a scream of delight as she saw them. "Oh I am so glad! I foolishly came into this wood alone, I have lost my way. Oh, Mr. Lazenby, put me in the right road, that I may reach home before the storm comes on."

"Come with us to 'The Spur,' Lucy," said Mrs. Marsdale. "You cannot go home to-night: the storm would overtake you before you were half way."

"Oh! I must go home! Papa will be distracted. I *must* go."

"You *cannot* go. You are seven miles from home."

Lucy wrung her hands. "Oh! what will papa say! What will he do!" and her distress was pitiable to see.

Harold whispered Miss Vinreth. "Certainly," she said. "Miss Sandys, Mr. Lazenby proposes that you shall come home, and cross the lake. George shall row you over; he is an excellent boatman; and there will be time for that."

Lucy thanked her with words and eyes; and as swiftly as they could, the party made their way to the house, and thence to the shore. The servant was summoned; and Lucy, gathering up her heavy riding-skirt, and wrapped in a plaid, was placed in the stern of Winifred's own boat. "How wicked the water looks!" she said with a shudder. "Like the back of a looking-glass—so leaden, and so deathly still."

There had been no time for carefulness; so Harold had turned the little craft upside down to rid her of the water, and himself adjusted the peg at the bottom of the boat. As he did so, a light, like a streak of blue lightning, shone in Miss Vinreth's eyes.

"Wait a moment!" she said, as the man prepared to push off; and darting to the side of the boat, she once more drew the plaid closer round Lucy, and stooping down, wrapped a shawl about her feet. Then she kissed her. "Good bye, dear, till we meet again."

Meet again! Never more—in time or in eternity—shall those two, the betrayed and the betrayer, the innocent and the guilty, meet again!

The boat had almost left the shore, when Harold came forward. "It is not right to send her with only a servant. I will go myself."

Miss Vinreth gasped, and caught his arm. "By no means: the boat will not carry three."

"I mean to row;" and before she had recovered breath, he had displaced the servant, and had left the shore. She looked after him, her face livid as the clouds. "Is the peg secure in the boat?" she cried, as well as her white and shaking lips would perform the words.

"Yes; I fastened it myself." A few more vigorous strokes carried them out of hearing; and Miss Vinreth turned aside, afraid to let her face be seen.

The rest of the party watched the boat for a few minutes, and then, mindful of the storm, turned to the house. They had not reached it, when a piercing shriek rang over the water, and echoed through the wood.

Terrified, they came rushing back. What did they see? They saw the form of Lucy Sandys erect in the boat; they saw Horace Lazenby stoop to her feet—saw his gesture of surprise and alarm—and saw him endeavour to replace the frightened girl. Fast and thick came the shrieks, as he held her hands and tried to force her to be seated. O God! Is she mad? Had terror deprived her of her senses? Let the boat leak as it will, they can reach the shore if she will but be calm. Another start—the boat rocks with the movement—a moment of horrible suspense—and both figures are in the water. They are lost; the boat is upset and the oars are gone. Harold sees it; and grasping the form of his companion as she rises, strikes out for the shore.

Who shall describe the scene? The struggling form on which all eyes are fixed—the screams of women—the shouts of men—the useless running to and fro—the wild gesticulations—the ghastly agony of Miss Vinreth's face—and, over all, the black darkness of the coming storm?

Will he ever reach the shore? Fearful as are his efforts, desperate as are his struggles, good swimmer as he is, will he ever—with that heavy burden—make the land? Slowly, slowly he approaches. Nearer,—till they can see his features, and the white face upon his shoulder, shrouded in the dripping hair. Nearer,—till they can hear his laboured breathing as he gasps for air. Will he ever do it? Encumbered with his own dress, laden with *her* heavy habiliments and senseless form,—will he ever reach the shore?

He has reached it! A few more frantic strokes, and those who dash chin deep into the water draw to land two drenched and senseless forms; —one white, still, and ghastly; the other with a crimson torrent pouring

from the parted lips. Too much for him, and vain for her, has been the fearful fight for life. Clasped in an embrace, close as if never to be parted, they lay upon the beach together—the dying and the dead; while above them, with the fire and the crashing thunder of the last day, breaks at last the storm.

Restored to consciousness, he waved aside the few who had not fled in terror, and beckoned Miss Vinreth to his side. She came, white and quivering—the dead face of Lucy Sandys not more ghastly than her own.

"Winifred Vinreth! unclose your hand."

She obeyed. What was it that she held within it?

"I knew it. You took it out when you kissed her. Judas! are you satisfied with your work?" He gasped, and a fresh torrent welled from his lips.

"Oh! be silent! Do not speak! You will kill yourself!"

"Aye. I wish it. Since I could not save her, I will die too."

"O Harold! Kill me—kill me! Let me die!

"Die? No! death is not for you." He spoke very slowly and with fearful effort. "You thought to part Lucy and me, and you have united us—wholly and for ever. You will live to feel that your treachery was known, and to die daily in the knowledge. You are young and strong; you will have the relief of neither death nor madness. You will live to die a thousand deaths before the one you pray for."

"Harold! do you curse me with your last breath?"

"No; I curse you not. It is not my fault that you have drawn upon yourself the curse of Heaven. Were not the words a mockery, I would say, I will try to forgive you as I hope to be forgiven. Go!" . . . .

She heard no more. When, many weeks after, she came back to life, she was alone at "The Spur." Her summer friends had fled from the scene of so fearful a drama. Nothing was known of her share in the tragedy; but it was supposed that she had been beloved by Harold, and that his fate had turned her brain. Well for her had it been so: but Harold's prophecy was fulfilled. She did not die, and her reason remained firm. She lives still—a gaunt gray woman—no longer young, but far from old, with many years before her in which to bear the torments of remorse, without repentance. She has endured and must endure.

People seldom go near "The Spur"—they fear her. The place is falling to ruin and decay. Thistles choke the neglected flowers: nettles and white weed still grow rank about the door. But those who have the courage, may see her, when a thunder-storm comes black across the lake, standing on the shore,—and view reflected in her haggard face,

stiff form, and firm clenched hands, the agony of years ago. They whisper, that at such times she still sees the boat go down in the leaden water; still sees her lover struggling vainly for his life; still hears her victim's death-shriek ringing in her ears.

THE "VOYAGEURS" OF CANADA.

BY W. GEORGE BEERS, MONTREAL.

"And ever and anon they sung,
Yo, heave ho!
And loud and long the echo rung,
Yo, heave ho!"

Have you, my friend, ever been on one of our Canadian steamers, on the St. Lawrence or Ottawa, and met with a raft, or perhaps a dozen of them, on their passage down to Montreal or Quebec? And if you have, you have seen the Voyageurs at work at their big paddles, like a family of Hercules'; and perhaps you have heard them singing some of their beautifully simple melodies, while they kept time to the dipping of their oars. You may have seen them on their great rafts of lumber, with arms bare to the shoulder, and their long black hair waving in the wind, while they step backwards and forwards as the long stroke of their oars necessitates; you may have seen them straining every muscle as they pass you in such graceful attitudes, their rich swelling voices keeping time to the simple

"En roulant ma boule roulant,"

or,

"Trois Canards s'en vont baignant,"

or,

"Si mon mone voulait danser
En beau cheval lui donnerar?"

all of which are great favorites of the Voyageurs. But rafts in a current and steamers in a hurry wait for no man; and soon the fine fellows on their lumber home float out of sight—their song dying away in the distance till it sounds like faint echoes on the hills. You have witnessed this picturesque scene, and have thought it very fine and romantic; and you think 'twould need not only the pen of the writer, but the painter's brush, and the art of the musician to express even half of its

beauty. Well, so it would. You never heard songs more melodious than the songs these untutored voyageurs sing: neither Mozart nor Handel could compose songs so peculiarly adapted to their particular application. The simple fascination and *chanson à voyageur* of the steersman, if the raft is not over large, and anon the bursting melodious chorus of the entire crew is beautiful. The greatest charm of the voyageurs is their singing. Nothing will arouse them from a lethargy like a song; nothing will keep them in a better humour. They will row from morning to night, singing together some favorite airs, and not appear wearied. That charming melody of

> "Row, brothers, row! the stream runs fast,
> The rapids are near and the daylight's past,"

was heard by Moore when passing a raft of voyageurs who were singing it: and I have heard something very like it sung by these men.

Well, I'm sure you'd like to know something about the life and habits of these daring fellows, who sleep on their rafts far more contentedly than the most of us sleep on our feather beds. The voyageurs of Canada are a fraternity of peculiar interest, to be found only in our country—a class of men strangely incompatible with the rest of humanity, as brave as they are strong, as wild as they are happy, as careless of life as they are capable of enduring hardship; always ready to give their heart and hand to a friend, or put their knives through a foe. Born, reared, and living amid the thistles of life, instead of its clover, accustomed to nothing but the extremes of hardship or indolence, "roughing it" in the wilds of our mighty forests, risking their lives on a raft of logs, fastened together, crashing down the rapids—verily, the refinements of city life is far from being congenial to their wild nature. Nature in all her freedom, unrestrained by the customs of civilization, has made the *voyageurs* a peculiarly intrepid, romantic race —with rather a tendency to the savage. The voyageurs are a proof that when man is placed in circumstances at all favourable, he soon learns to assume the savage. There is an actual romance about their lives, in the continual exposure to danger of every kind, which cannot but interest us in studying their character and habits. Washington Irving, in his "Astoria," describes their peculiar condition and mode of life, so far as he saw, and Henry was interested in them also. The former writer has, however, given them too much credit for "submission to their masters." I notice this particularly, because it is a great mistake. Generally, you do not find men who are free, and whose passions are unrestrained, submit to every whim of those above them. The master cannot force them to labor, he dares not strike them; it is only

by conciliation, and not coercion, that they will respect their superiors. It is the most difficult thing in the world to get them to obey their leaders, and the man appointed captain of a raft is usually chosen by and from among themselves. It is not every man they will obey; and they would think no more of pitching him into the river, if their passions were aroused, than they would a rotten log. I have seen these men in every mood and in many circumstances, and I assure you submission is not one of their virtues. Even in the matter of rowing and working, they will do neither if eating and fighting is more agreeable. I may remark, however, that the Hudson Bay Company's authority is somewhat respected by the voyageurs.

The voyageurs consist chiefly of Half-breed Indians, French Canadians, and some Scotch and Irish. But I never heard even the latter two speak in English to each other. Their language is a mixture of Indian, French, and English, very much intermixed with "*sacres.*" It is the most inconceivable jargon of *patois* and curses that humanity ever devised. One would think it was a trial to see who would make the most noise, the most gesticulation, and be the least understood. They will yell in each other's ears, like the chattering of a thousand monkeys, till your senses seem wandering, and you expect to see them eat each other up. While disputing with each other, and if a civilized being is near, they will suddenly turn round upon him for his opinion, with an expression of face and action that *might* start the hair of some people on end, and set them to reciting their prayers. And, as generally, the man they select doesn't understand a word they say, he has to shrug his shoulders and say "*pas comprendre.*" I pity the nervous man who gets into their company.

Now some may conclude that such a class of men, who seem partial to every thing rough and noisy, can be no tempting addition to our population. True; the roughness and the noisiness are not, but the men are indispensable. Very much of the lumber trade of Canada, and business of the Hudson's Bay Company could not be carried on. Canada could not do without them, and the Hudson's Bay Company might paddle their own canoe "brigades," or shut up their establishment, if the voyageurs refused to work. The Hudson's Bay Company and Canadian lumberers principally employ them. Those engaged by the former, bring the furs, packed—in which the Company traffics—in Spring, to the three chief depôts on the sea coast, viz.: Fort Vancouver, at the mouth of the Columbia River, on the Pacific shores; Fort York, on the shores of Hudson's Bay; and Moose Factory on the shores of St. James' Bay, from whence they are transported in the Company's ships to England. The voyageurs of this Company are consequently oftener in the canoe than on the raft, and are not the

same we are so familiar with—the lumberers. A great commotion is caused by the brigade of boats laden with merchandise and furs. "The still waters of the lakes and rivers are rippled by the paddle and oar, and the long silent echoes, which have slumbered in the icy embrace of a dreary winter, are now once more awakened by the merry voices and tuneful songs of the hardy voyageurs." I cannot do better than give you the following quotation from Mr. Ballantyne's "Hudson's Bay," on selecting the men for a brigade :—

"Choosing the men for this long and arduous voyage was an interesting scene. L'Esperance, the old guide who had many a day guided this brigade through the lakes and rivers of the interior, made his appearance at the fort a day or two before starting; and at his heels followed a large band of wild, careless, happy looking Half-breeds. Having collected in front of the office door, Mr. McK. went out, with a book and pencil in his hand, and told L'Esperance to begin. The guide went a little apart from the rest, accompanied by the steersmen, (seven or eight in number), and then, scanning the group of dark, athletic men who stood smiling before him, called out "Pierre!" A tall, herculean man answered to the call, and stepping out from among the rest, stood beside his friend and guide. After this, one of the steersmen chose another man, and so on till the crews of all the boats were completed. Their names were then marked down in a book, and they all proceeded to the trading room, for the purpose of taking "advances," in the shape of shirts, trowsers, bonnets, caps, capotes, tobacco, and all the other things necessary for a long and rough journey."

This recruiting must be a strange scene indeed. When a brigade of boats are on their journey they go well stocked with food, and encamp on the shores at certain times for their meals. Then, they consist mostly of pemican and flour, boiled into a thick soup, called *robbiboo*. The same materials are sometimes fried, for variety, and is then called *richeau*. The latter is preferable, I think. I suppose you know what *pemican* is. It is made by pounding the best parts of the meat very small, dried by frost or a fire. This is put into bags made of the skin of the animal, and melted fat poured into it. When spiced it is really splendid. The above soup is boiled in kettles, hung upon tripods over a fire, and is constantly stirred while boiling. I may here mention that when the voyageurs are travelling they measure distances by *pipes*, as they call it. They stop paddling at certain times, light their pipes and smoke for a few minutes; then start again, refreshed, paddling at the rate of about fifty strokes a minute. "*Trois pipes*" (three pipes) are about twelve miles, and I can tell you the voyageurs' pipe yearning is a perfect sun-dial, and they can tell exactly when "a pipe" is to commence again.

It is a fine sight to see one of these canoe brigades leaving on their voyage. "*Bon jour*," "*au revoir*," "*hooroo!*" and strange exclamations of farewell greet those on shore. Then the stroke is taken up and away they go, the fine manly fellows keeping time to the lively chorus of "*A la claire fontaine*," or to the rigmarole which every one of them joins in, and which runs precisely like this:—

"Ta la th' ra te,
Ta la, la, la,
Ta la th' ra te,
Ta la, la, la! Hooroo!"

It is amusing what life this absurd bit of composition will put into them. I wish I could give you the air here; it is so laughable. The scene is really beautiful as you see the regular motion of the light red paddle, and hear the swelling voices across the waters.

Their arrival at Lachine, nine miles from Montreal—where is the depot of the late Hudson's Bay Company—is a time of great excitement. The wild picturesque appearance of the men, and the distance they have come, awakens a sympathy for them, and hundreds will go from town to see them. Their appearance in the city is very odd. They go along the streets, either gaping and staring at everything, and in such haste and excitement that they run against people and stumble over little obstructions. They laugh out straight in the face of some exquisite, roar aloud with laughter at the extensiveness of the ladies hoops, and the peculiarity of their hats, &c.; look in the windows at the jumble of new things, to them, and have hearty laughs at what they consider the absurdities and curiosities of city people.

The dress of the voyageur is half-civilized, half-savage. Some of them dress very fantastically; light blue capotes (hoods) corduroy trowsers, or leather or blanket leggings, moose-skin moccassins, striped blue and white shirt, and a belt of scarlet; the leggings and other parts of their dress being decorated with beads and bits of colored cloth, or curiously cut tin. The coverings for their head are often adorned with feathers, gold and silver tinsel cord, etc. But we don't often see this swell-voyageur; never among the lumberers. The shirt is left open from the neck half way down the breast, showing the sunburnt, brawny neck and bosoms. Many of them trust to their thick, black hair for a head covering; many of them wear felt hats, especially when coming into the city. In fact, one notices the affectation to the savage style of dress. The voyageurs of the Hudson's Bay Company dress more fantastically than the raftsmen; are mostly finer men also; and a good many more of them are married. Surely the woman who would "of her own free will" marry a voyageur, and follow him, at times, through the woods,

and on the rafts, and labor for his comfort, surely such a woman must have devout love in her heart. What a blessing so many people in the world are so easily satisfied.

The voyageur is never a "man of property." His worldly possessions are generally the clothes on his back, a knife—sometimes a gun—and a well-tempered axe; not forgetting the minutiæ of tobacco, short handled pipe, a piece of another piece of comb, a bit of looking-glass, matches, flint, &c., only surpassed in number by the contents of a little girl's pocket. When a voyageur buys a pipe, he immediately breaks off the handle to within a few inches of the bowl, logically concluding, that it is not so liable to break in his pocket or hat—they often stick them in the bands of their hats—as if it was long; and accident might break it nearer the bowl than intention. Towels and hair-brushes are alien to his nature; one large piece of sail-cloth or old rag is made to serve for towel for the whole crew. Some voyageurs can shake the water from themselves, like a dog, and think that quite sufficient. Don't laugh; for I've repeatedly seen them do it. To give them some credit, however, they do not altogether exclude soap from their toilet; but that is a luxury to be used, perhaps, once a week. As to shaving, some of them do when they think about it, but the majority let their beards grow; or some one of the crew who boasts of a pair of scissors, clips them to a suitable size for *un pipe du tabac*, for the whiskers, and *deux pipes*, for the hair of the head. You seldom see a voyageur without a chew of tobacco in his mouth, and many of them keep it in while at meals. Their habits of life being unrestrained by etiquette or conscience are by no means exemplary. There is always a moral in the vilest of natures, but seldom a model. They are civil and complacent, and sometimes exceedingly obliging to strangers; but if you accept their invitations "to dine," you must expect to see appetites as voracious as that of a beast, and gormandizing that would put to shame that civilized beast of a man who won a prize by stuffing himself at one time with enough for a respectably large family.

The integrity of the voyageurs is not always as it should be; but voyageurs are not alone in this respect. Their hospitality is unbounded, and they always esteem themselves favored by the visit of a stranger when they are at meals. Their bump of combativeness is rather much developed; so much so, that they are sometimes obliged to "let it out" by fighting their friends as well as foes. Some of the most savage think nothing of gouging your eye out—an accomplishment introduced into Canada by our Southern neighbours. Their ideas of law and government were once merged in Judge Lynch, and "every man for himself," but since the visit of H. R. H. the Prince of Wales, and the reception they gave him in canoes, they understand something about "the Sov-

ereign," and respect to the throne. Summary punishment, though, is in accordance with their feelings. I knew a habitual thief, who had his legs and arms tied, and a rope passed around his body, and was then plunged in the river, from a raft, a dozen times. Their orisons are few and far between, and superstition replaces devotion. They neither care for man or the devil, and would sail even where Charon ferried. They have a strange way of calculating on their fingers, or with bits of wood or stone, and count by "threes."—those who can count. Very few of them can sign their own names; and a great many don't remember their surnames.—I seldom knew of any who could read. Some of them have extraordinary powers of imitation, and imitate birds and animals perfectly—a power very useful when hunting. They have no desire to be "famous," they are the most contented class in the world, and love life; but if they have to die, they will die with the stoicism of an Indian. They would be as content to sleep, like Diogenes, in a tub, as on their rafts, or in the woods. Their ideas of love I could never find out; it's a great blessing for woman if they have none. Their amusements consist of singing, dancing—wonderful dancing, too—card playing, checquers, and dice—a peculiar game I never saw before—and whiskey drinking. The former are their *forte*, the latter their curse. They generally play cards, &c., on the top of a keg—the contents of which they have previously imbibed, and have consequently a sort of affection for it—and play far away into the morning. When they return on the steamers to their stations, after bringing the rafts down to their destined ports, they keep the whole boat awake with their noise.

They bear, and go through more severity, and change of climates than the ancient Britons, and many of them with nearly as little clothes as our forefathers wore. But I cannot note *well* the manners of these strange men, without going into details, which might be unwelcome.

I have come down the rapids with these fine fellows, with my pants rolled up, and boots and stockings off, when the water would splash and dash over the logs, when the waves would seem to suck the whole mass of lumber into their depths, and at times you could not see a bit of the timber you were standing on; while your hand grasped tightly the pole which was stuck between the logs for you to hold by, when you'd think the whole mass was going to pieces, when your very knees would be beneath the water—oh! it makes one hold his breath with terror!—I have been out in the woods with them, and, notwithstanding their bad traits, and partiality to bad whiskey, I have been more amused in their company than anywhere else. I spent the two months vocation which "our school" allowed.

Their passions are very fierce; they are often brutes in action, but there

is a complaisance and kindness beneath all this, which is easily brought to the surface. The voyageurs of Canada are a class of men peculiar in everything, and differing from other men in everything relating to habits; but they are a wild and romantic class, who murmur not to toil far, far back in the thick dark woods in the cold winter, where the wild bears prowl, and all is desolate—who risk their lives on the raft of logs; who are content with their simple fare, and are happy in their hardships.—One cannot but pity them, but they are content, and "what's the odds?"

THE CITED CURATE.

BY MISS MURRAY.

CHAPTER IX.

EARDLEY'S LETTER CONTINUED.

For a little while Kate and I stood together looking over the cliff, down into the glen, which was thoroughly illuminated by the blaze from the burning hay-rick. The broad, glaring lights, the deep, dark shadows,—the tufted thickets, the jagged rocks, the brown heath, the white crags, the snarled and twisted trees, the glittering stream leaping down the cliff—all the wild scene on which they were thrown, formed one of those vivid necromantic like pictures which stamp themselves indelibly on the brain. Yet clearly as I can recall it now, the impression was scarcely felt at the time. I thought only of watching the departure of my enemies, and making sure that no straggler still lurked near the house; and Kate's eagle glance followed mine. But not a human being was visible; they had all vanished. Now Kate drew a long deep breath, as if her bosom had just thrown off an intolerable load.

"They're all gone," she said, "I saw Freney turn the corner of the glen. You're safe now."

"And who am I to thank for my safety, Kate?—And *how* am I to thank her?—But how you tremble!—Does your arm pain you very much?"

"A little, and besides I am cold. But the walk home will warm me."

"Home! Do you think I would let you walk home after all you have gone through to-night?"

"Oh, I must go. My father will be frightened if he misses me.—Don't, Mr. Temple, don't ask me to stay."

"Only till morning, Kate, and then I'll take you home myself. Why should you be afraid to trust yourself with me for a few hours?"

"I am not afraid, sir, but the people might say—"

"What matter what they say. Is it necessary that you should walk home through the dark night, when you are suffering such pain, and are hardly able to move, lest people should talk nonsense?"

"I don't care for myself," she said, with a smothered sigh, "but it might grieve my poor old father if he heard such things as I heard them say to-night. And I'd care if they said what was false of you, and accused you of being wicked and cruel, when I know that your all that's good and kind."

Is there anything more bitter to a nature that is not altogether ignoble than to receive praise from a trusting heart, which you know you do not deserve. Kate little knew how her words stung me.

Poor girl, though she was eager to set out on a walk of five miles, fatigue, pain, and excitement had completely exhausted her, and she could hardly descend the cliff, even with my support; yet when we came to the gate, she stopped, and again declared that she must go home—"I'll be quite strong when I am once on the road," she said, "but before I go you must promise me one thing."

"What is it, Kate?"

"That you won't stay another night in this house. You must go to live in the town or some place where your life will not be in danger.

"I promise you, I'll take care of myself, Kate. But now listen to me. If you persist in going home, I must go with you."

"Indeed you must not," she exclaimed.

"If you were the most indifferent acquaintance I have—nay, if I had never seen you before in my life, I should not let you walk home alone at such an hour, especially while such demons as were here half an hour ago are prowling about; then how do you suppose I would allow you to do so."

"They would do me no harm, but *you*—I would not have you travel that road to-night for the whole world."

"Then you must stay, Kate."

"Very well," she said, quietly, "I'll stay. At any rate I would not have gone very far. I only meant to hide myself somewhere near to watch that they did not come back. I cannot feel sure that you are safe till daylight comes."

Was that what you meant, Kate? You are afraid to come with me into the house then? I did not think you were afraid of me."

"Afraid of *you*, sir—Oh, no! I am not afraid to go with you anywhere!"

Walter, I like to live over again that night, as I do while I am writing this to you. Nothing blissful and beautiful ever comes back again, then how could such a night as that ever return!

There was scarcely any wind, and the house and stable were all stone, so that there had been no great danger of the fire spreading from the burning rick, and it was now getting low. The doors of the house lay in fragments, and some of the windows were torn out of their frames; the furniture was broken and scattered about, and on entering the study, what fuel do you think I found feeding the fire in the grate? The picture of Francesca di Rimini. That was Freney's doing, I could swear. Of course he saw the likeness to Kate, and I daresay believed it to be her portrait—as you did. But wonderful as the resemblance was, it was a purely accidental coincidence. I saw it in an old Jew picture-dealer's, as I told you, and bought it, because it was so faithful an image of that face, in which I had for once found my ideal of woman's loveliness realized. In the place it had occupied a huge coffin was scratched with a charred stick, and my name scrawled in the centre. I own to you, Walter, the change gave me a disagreeable sensation. I thought it looked ominous. Everything else in that room had escaped, except, strange to say, the little china flower-pot with its sprig of heath, which you may remember; the flower-pot was broken and the flower gone.—That rascal Freney must be a wizard and have known that Kate had given it to me. Even my pistols had been left untouched. I would have given a good deal to have had them in my hand when I stood on the cliff and expected every moment to see my pursuers close at my side.

Placing Kate in an arm-chair by the fire, I threw on some turf and bogwood, making a brilliant funeral pyre over the ashes of my poor Francesca, and then bringing out some wine, which, I daresay, my visitors did not suspect me of possessing, I compelled her to take a little, and kneeling down beside her, I made her let me examine her wounded arm. It was swollen and inflamed, and she must have been enduring great agony from it the whole time we were on the rocks, though she had so bravely suppressed all signs of pain. I bathed it in a cooling lotion and bound it up in a handkerchief as tenderly as I could, and though at first she timidly resisted services which it seemed so much more natural to her to give than receive, she submitted after a while with mingled pleasure and bashfulness, and seemed to feel a strange and

new delight in being thus cherished and waited on by one she loved so well.

Never could mortal maiden have looked more lovely than she did then, her grey hood thrown back, and her shining curls falling on her shoulders, the warm crimson hue of the blazing pine lighting up her delicate features, and giving an almost supernatural brilliancy to her rich dark eyes—eyes the sweetest in the world;—proud and glad that she had saved my life, happy that I was by her side tending her and taking care of her, thrice blessed in the timid half-assured consciousness that I loved her! And this loveliest, sweetest and purest of human beings, this most loving, gentlest, truest heart, loved me as I never shall be loved again—for to no one on earth can such a love be twice vouchsafed! I had only to say to her "Kate, be mine for ever!" and she would have followed me from one end of the earth to the other, and clung to me while life was left to her. Wild thoughts of breaking through the cramping, galling withes that bind me to this trivial, monotonous sphere of being, of carrying her to distant lands where the fire forever burning within me could discover some other food than vain hopes and empty imaginings, and where my craving ambition might find or make a path to greatness, denied in this country of rules and lines, of measured roads, and clipped hedges, and walled-in gardens, came thronging fast. Italy, Greece, Syria, in either of them a strong energetic arm wielded by a daring and creative brain might find elements which only awaited the formative impulses to be moulded into empires; and some day hailed as liberator, prophet, king; I might clasp a diadem on Kate's peerless brow! Madness all this, no doubt, to the eye of sober reason, but to such moments of inspiration, genius has often owed the projects that ended in a conquerer's crown. Nothing but the love of this simple girl had ever made me swerve one moment from the worship of Power, and at that moment I verily believe I could have led a host to victory for the chance of obtaining both! I gazed in the face of the fair unconscious sibyl who had inspired the wild thought working within me, and who, little dreaming that her destiny and mine were then trembling in the scale, looked at me with such trusting, tender eyes. Walter, how the struggle might have ended, I know not, but as if sounded by magic, a loud bugle horn sounded close outside—my wild visions fled and I started to my feet a cold hard man of the world once more!

Going into the parlour I saw through the shattered window half a dozen horse-police on the lawn. They were returning from an unsuccessful expedition to the mountains in search of an illicit still, and as their road lay near the glen, the burning rick, now a red smouldering mass, attracted their attention, and they had come up to the cottage, sounding a bugle to summon another party that were behind. After

speaking to the serjeant, I went back to the study to arrange with Kate about her return home, but when I entered it, I found that she was gone. My first impulse was to follow her, and I was just going out by the window through which she had passed when I heard my name pronounced in bland, polished accents, which I at once remembered. I turned hastily and met Sir Francis Denzil, who, grasping my hand warmly, expressed great pleasure at seeing me safe.

"We only arrived yesterday," he said, "and I was aroused from a sound sleep by some of my terrified English servants bursting into my room, and declaring that a rebellion had broken out, that one of the gamekeepers had seen your house on fire, and had come to warn us that we might expect a speedy visit from the rebels in our turn. I soon discovered that the report I had heard was considerably exaggerated, but the story about the burning of your house seemed true enough, so I got on horseback as quickly as I could, and came here with some of my servants. How did you get out of the rascals' way? Had you notice of their coming?"

"Yes, one of my parishioners, a protestant, though belonging to a catholic family, let me know their kind intention, and so I left the house in time."

"What a narrow escape! We must reward the faithful fellow that gave you information—one of your converts, I suppose—for I hear it is your active labours as a clergyman that has excited such a hatred against you among these wretches."

"See what they left to greet me on my return," I said, pointing to the gigantic coffin on the wall inscribed with my name.

"The scoundrel!" exclaimed Sir Francis, starting. "Listen to me my young friend," he added, gravely; "you must run such risks no more. You are much too clever a fellow to be left to the mercy of such incarnate fiends. You must come home with me at once, and make Grey Court your residence for the present."

He would not listen to any excuses. "Have you a horse?" he asked.

Not within reach," I said, and my thoughts forcibly flew back to Kate, toiling wearily and painfully through the long five miles that lay between her and home; her only solace that she had left me in safety

"Well, one of the servants shall give you his, and you can give directions about having your clothes and any valuables you may have here removed to Grey Court. He will have the policeman to protect him.—Now let us be off. Evelyn will be in an agony of suspense till I return."

"What, then does Miss Denzil know of your coming?" I asked.

"Of course she does. Do you suppose her maid could resist making

her mistress share her terror? No doubt the poor child's imagination has already encompassed you with a martyr's halo, but I daresay you will have no objection to dispel the illusion, and appear before her without a hair of your head being singed."

But I need not go on, Walter. I am still at Grey Court, treated as a valued friend by Sir Francis, and certainly not with dislike by his fair daughter. She *is* fair, too, with deep, melting blue eyes, clear as a limpid well, a brow smooth and cloudless as that of an angel might be, shaded with soft glossy curls of a golden brown, a chin fair as snow, showing the rose's blush on the transparent cheek at every word, all her features soft and delicate, and her mouth like an opening rose-bud. There!—I have made a pretty picture, have I not? But a face scarcely so brilliant in its hues, bearing more traces of thought and feeling, yet fresh and pure as morning, and lighted by eyes whose lustre is that of the soul, rises up before me as I gaze on it, and blots it from my sight.

But I have sworn to be firm, and now Fate has come to my aid, shall I turn recreant? Never, come what may!

Witness my hand and seal,

EARDLEY TEMPLE.

CHAPTER X.

The next tidings that reached me of Eardley was the news of his marriage to Miss Denzil. Shortly after I received an invitation to visit him at Grey Court, to which he and his young wife had just returned after their bridal tour.

From some whim which I could scarcely explain, even to myself, I resolved to pass the night before my going to Grey Court, which was Saturday, at the inn by the Ford, and meet my friend the next morning at church. The landlady was surprised to see me when neither fishing nor grouse shooting was in season, but on learning that I was on my way to the Court, ran off in such rapturous descriptions of the beauty and goodness of Mrs. Temple, and the great affection Sir Francis showed to his son-in-law, that it was evident Eardley's popularity was still at full tide.

"There was not such a well matched pair in the kingdom," she declared, "for Mr. Temple was fully as handsome for a man as she was for a woman, and if she had the most money, he had genius and learning enough to weigh down all the riches in the world. And, indeed, every one in the house made more of him than if he had been a prince!"—She next told me of the villainous attacks the Whiteboys had made on the young curate, and declared her solemn conviction that they had been

set on by the priests in revenge for the young curate's zealous efforts to open the eyes of the poor deluded papists. Some of the wretches, she said, had been taken, convicted, and transported; soldiers and police had scoured every mountain and glen in the country, and neither a rebel nor a pike had been left a hole to hide in; the place had never been so peaceable or safe in the memory of man. I did not forget to ask for Freney, but it appeared that he had not been seen in the neighbourhood since such stringent measures had been taken against the Whiteboys, with whom he was supposed to be connected.

I had not forgotten Kate Redmond, but from some dread of inculpating Eardley, in some way or other, I refrained from making any enquiries about her. Her lovely young face seemed to gleam before me as I sat in the little inn parlor and looked out on the swollen river rushing by, and I wondered again and again what her fate had been.

It was now nearly the middle of December, and as I took the road to the church on the moor the following morning, the contrast between the present scene and what it had been when last I traversed it, bright and soft in rich September, was great. The valley and heights were bleak and bare, the trees brown skeletons, the sky dull and grey, the river flooded and discoloured, rushing angrily along, not a ray of sunshine to brighten the dreary waste, not the note of a bird to be heard; a few daisies, scattered here and there still raised their little heads, but every other flower was gone, and the very sound of the church bell had to my ear a sad as well as solemn tone. When I came out on the moor with its solitary church and few scattered headstones, standing bare and grey in the midst, I thought I had never seen any spot look more lonely, desolate and austere; and the dark barren mountains that enclosed it seemed to shut it out from every image of hope and life. No larks now sang carols in the cold damp air, no bee or linnet flitted among the heath and thyme, whose dry and withered stems no longer emitted their pleasant fragrance when my foot crushed them.

The bell had ceased and the last straggler had entered the church before I reached it. The pews were so crowded, that it was with difficulty I found a seat, and the congregation's attentive and interested air proved the influence their young pastor's eloquence exercised over them. Eardley looked quite as handsome as ever, yet I fancied him somewhat changed. Something harder, sterner, more sarcastic, was impressed on his face; there was less sweetness in the haughty mouth, less softness in the flashing eye. After one glance at him I looked for Kate, but she was not to be seen. I had expected to find her absent; it would have jarred against all my pre-conceived ideas had I found her in her place as of old, and the gaily dressed damsels who occupied her seat were more in character there now than she would have been. Eardley's bride was

not present either; there was no one in the Denzil pew but an elderly gentleman, tall, handsome, and dignified—Sir Francis, of course.

The service proceeded as usual till Eardley left the reading desk to go to the communion table. He had just entered the railing, and turned to close the door, when I saw him grow deadly white, and gaze down the aisle with a wild horrified stare. At the same moment a low murmur ran through the congregation.

Up the aisle of the church, her eyes bent immoveably on Eardley, Kate Redmond walked slowly and steadily. The light, wavering, flash of insanity glittered in her eye, its vacant wandering smile was on her lips, and her cheek, though a hectic flush burned in its centre, was hollow and wasted. Yet enough of her loveliness remained to make its wreck inexpressibly touching and mournful, and there was a sad sweetness mingled with the wild expression of her face, that took from her madness all that was fearful and appalling. She was dressed in the every day dress of an Irish peasant girl, a blue calico jacket, and black stuff petticoat, and her head was uncovered; but nothing about her was out of order except her hair, which hung loose on her shoulders; its long silken tresses reaching nearly to the ground. Some of the congregation rose, and all stared at her, but no one attempted to stop her till she reached the marble font, just in front of the communion table, where she stopped, and supported herself by grasping it with her slight bloodless fingers. Eardley stood by the railing, one hand yet holding the door, his face blanched white as his gown, his eyes fastened as by a spell on Kate's. Hers had never once moved from him.

At last she spoke. "I have come to bid you farewell," she said, and her voice, though still silvery in tone, was so shrill and over-wrought as to pierce the ear painfully, "I couldn't die in peace till I had seen your face again. For I'm dying fast. You'll soon hear that I'm laid in my grave, and then you'll be sorry, and say, 'Poor Kate Redmond! it was I killed her, but I loved her once!' For you did love me, didn't you Eardley? Your heart's joined to mine, and even when I'm under the earth, they can't be sundered."

Unable to master his anguish, Eardley turned away and covered his face with his hands, and at the same moment, Sir Francis Denzil left his pew and came noiselessly up the aisle.

"He's sorry for me now," said Kate, bending wistfully towards her unhappy lover. "I knew he would be. He can't bear to look in my face when he sees how plainly death has marked it with his finger. But I know we won't be separated long. Something tells me that you'll soon come to me, and we'll be together in another world, though we were parted in this. There now, he's crying," she exclaimed, more wildly, as a sort of convulsive sob burst from Eardley—"Oh, his heart's not

hard or cruel as they said it was; it was always soft to me, and I knew how he suffered when he bade me farewell. That hour my heart grew as cold as ice, and my brain began to burn like fire, and they've been that way ever since. But he loved me all the time," she contined, as if that one conviction atoned for everything else; "he told me he'd never love any one but me, and I know he never will!"

Utterly powerless to control himself, Eardley made a movement towards her, she sprang to meet him, and in another moment they would have been in each other's arms, had not Sir Francis interposed between them, pushed Eardley back, and lifting up the struggling girl, carried her towards the door. Her cries now became heart-rending, and in piteous accents she besought Eardley to come to her, but he had been recalled to himself, and stood pale, stern, moveless, as if made of iron except for the wild fire of his eyes as they followed the frantic girl.—At the door she broke from Sir Francis, and turning towards the stony inexorable figure of her lover, but without attempting again to approach him, she cried—"So you won't come near me, you won't touch me; you hate me, you despise me. It isn't enough that you've killed me, but you won't speak a word to me, or move a step to make me die in peace, and rest quiet in my grave. But I'll never rest quiet till you come, Eardley Temple; I never will! I summon you to follow me and answer before God for all your cruelty to me, before the next green leaves fall from the trees!"

Wildly and shrilly as her words rang through the church, fearfully as they impressed every one else, Eardley heard them without moving from where he stood His first terrible emotion conquered, he was master of himself again; he neither stirred nor spoke, but his eyes seemed to devour her as she thus poured forth her frantic words, and to meet her frenzied glance with an imploring passionate appeal. The next instant, before Sir Francis and others who had come to his assistance could again seize her, she rushed from the church.

Several persons followed her out, and I among the rest. Sir Francis spoke a few words to some one in the porch, I think giving directions that she should be taken care of, and then returned to his pew.

When I came out, she was sitting on a grave, her arms twined round an old man who sat beside her, evidently her father, He looked upwards of seventy, and more feeble and bent than is common even at his years, but his finely-marked features, and large dark blue eyes bore traces of the beauty that had adorned his prime. His hat had fallen off and his hair of the pure silvery tint, so beautiful in old age, was blown wildly about by the breeze, its white locks blended with Kate's raven tresses, and tears, which he made no effort to stop, or even to wipe away fell slowly down his wrinkled cheeks. A hushed and pitying

group of spectators stood near, but neither father or daughter heeded them; they were only conscious of each other's presence.

"Hush now, father, hush!" murmured Kate, softly stroking his face as if he had been an infant, "don't cry any more, and I'll sing you a song you always liked to hear me sing,"—and she began one of those mournful ballads so much beloved by the Irish peasants.

"Cruel is this winter's wind
That chills my heart with cold,
But crueller that false one
That sold his love for gold!"

The wild broken melody of her voice had a pathos no art could reach, and the poor old man seemed to feel all its force, for he sobbed out—"Oh, don't, my heart's darling; you'll kill your old father if you go on that way!"

"Aye, it's too mournful, isn't it, father?" she said. "But I can't think of anything merry now; if I try to sing gay songs, sad tunes and sorrowful words come to my lips; I think there's nothing else in my heart. I suppose it's this pain in my head that ails me throbbing and shooting all day. I don't know what else it can be."

"Oh, Kate, my darling," my heart's treasure, exclaimed the poor old man, "how can I bear it! How can I look in your face and see the change that's come over it, and keep my senses! The light's gone from your eye, and the smile from your lip, and the heart's dead in your bosom, and you're wasting away before my eyes! Oh, how can I bear it at all!"

"Bear what?" she asked, wildly, and drawing back a little to gaze in his face, "do you think I'm mad, like the rest?"

"No, no, my darling, not mad; God forbid! only dying by inches before my old eyes."

"Ah! that isn't the worst," she said, more gently, and with a strange frightened look, "there's many worse things than dying. How hard and cold he looked, all but his eyes, and they blazed like furnace fires—they're burning into my brain now. But there's quiet for us all down under the green grass, and I'll soon be lying there."

"And your poor old father, too, Kate, my darling. God is good, and will take us both together.

"There now," she cried, "I forgot my father was listening, and talked about dying. It was only nonsense, father dear; I won't die. I'll stay and take care of you. And I'll sing for you every night as I used to do. What shall I sing?"

She seemed unable to recal anything but the same sad old strain she had before commenced, though its mournful notes appeared to inflict

almost as much pain on herself as on her hearers, and she immediately stopped again. At that moment she chanced to catch sight of me, and my presence seemed in some way to bring the scene that had just passed in the church more vividly before her bewildered mind;—"Were you there?" she cried, wildly "did you see him? Do you think it was really him? Oh, it was him!" she exclaimed, in an accent of the most heart-rending anguish; "it could be no one else! No one but him ever looked so handsome and so proud; but oh, he didn't seem the same to me!"

"Stop talking of him, stop talking of him!" cried her father with fierce vehemence, adding curses too fearful to write, but which still, at times, I hear sounding in my ears; for the trembling weak voice, the bent enfeebled body, the withered, ashen coloured face, the shaking hands, and half-crazed, scintillating fire in the eyes of the aged figure that pronounced them, made them seem to me more awful than any maledictions I had ever heard; those terrible cries for vengeance contrasting so fearfully with the tottering feeble frame which had given them utterance.

Kate shuddered violently, and putting her hands on her father's lips tried to stop him. "Hush! father, hush! don't curse him!" she cried "you're cursing me when you curse him, for my soul's his, and his is mine. Oh, father, father, don't curse him any more;" for the old man's passion, now thoroughly aroused from the lethargy of age and imbecility, was again about to break forth in words, "Oh, wicked father, how can you curse him that I love so well!"

"To hear you talk that way is the worst of all," cried her father passionately, "how can you love him, the false, cruel villain! Hate him and curse him as I do, and then maybe we'll live to trample on his grave yet."

"I'd rather you'd trample on my heart!" she exclaimed, frantically starting to her feet, "But you don't know how I love him; how could you—no one knows; he knows least of all! Oh, Eardley, my heart echoes for you night and day—will you never come to me again!" And sinking down in the grass she buried her face in her hands.

The poor old man's impotent paroxysm of fury melted again into softness at the sight of his daughter's sufferings, and kneeling beside her he lavished the fondest caresses and the most endearing epithets on her.

"Forgive me, Kate, my own darling, forgive your poor old father; he didn't mean to grieve you, but he's old and foolish, old and foolish. Look up, my darling child, look up, and I'll never curse him again!"

But she heeded him no longer; utterly exhausted, she lay half unconscious, and no effort could rouse her.

"Let us take her home, boys," said her father, at last, "she doesn't

mind anything when she gets this way, and she'll let us take her home quietly."

A jaunting-car was brought, and old Redmond getting up on it, the passive girl was placed beside him. Putting his arm round her, he supported her head on his shoulder, and as I looked at them I thought of poor old Lear holding his dead Cordelia in his arms. The driver of the vehicle jumped up on the other side of the car, and giving his horse a signal from his whip to move on, they drove away across the moor, and seemed to vanish among the gloomy mountains that formed its barrier.

ON THE WORD "CANADA."

The learned Dean of Westminster, in his interesting and valuable work on "The Study of Words," remarks, that "the rise of some new words is mysterious, they appear, they are in everybody's mouths; but yet when it is inquired whence they are nobody can tell. They are but of yesterday, and yet with a marvellous rapidity have forgotten the circumstances of their origin." He adds, "one might suppose that a name like 'Canada,' given, and within fresh historic times, to a vast territory, would have been accounted for, but it is not."

Although philologists are not yet agreed as to the derivation of the word "Canada," yet numerous have been the attempts made to account for it. Some writers have suggested an aboriginal origin; others an European; while some have gone to search for it among the languages of distant India.

We will consider first, the European theories; secondly, the Asiatic; and lastly, the aboriginal American.

I. Some have maintained that the name of our beloved country is derived from two Spanish words, "Aca" and "nada." These writers say that when the Spaniards—who visited the shores of the St. Lawrence long before either the French or the English—arrived here they were, as usual, eagerly in quest of their long sought El Dorado; but that on finding neither silver nor gold nor precious stones they departed, saying to each other, "Aca nada," "Aca nada,"—"There is nothing here."

The red men who dwelt on the banks of the river, hearing these oft repeated words, treasured them up in their retentive memories; not knowing, however, their meaning, (according to some writers) or not

wishing to have any dealings with the treacherous white men, (according to others) when the French voyagers arrived the Indians, who supposed that they also were Spaniards in search of gold, kept continually repeating to them "Aca nada," "Aca nada." The French (say these writers) mistook these words for the name of the country, and abbreviated them into "Canada."

This theory as to the origin of the word is, however, liable to several strong objections: first, it is very improbable that the learned men who accompanied the French expedition under Jacques Cartier were all so entirely ignorant of the language of the Spaniards, their neighbours, as not to be able to recognize these two very common words, "Aca, nada." Secondly, instead of the early voyagers finding "nothing here," we know that these Europeans did find some gold here, and took home large quantities of a substance which they thought was gold, but which eventually turned out to be only mica; they likewise found some precious stones, resembling diamonds, near where Quebec now stands, and from that circumstance gave the name of Cape Diamond to a neighbouring headland. A third objection is, that *Aqui* not *Aca* is the Spanish for *Here*, and it would be forced and unnatural to corrupt "Aquinada" into Canada.

The chief supporters of this theory are Dr. Mather, in his "Magnalia Christi Americana," Bk. VIII., p. 71; Harris, in his "Voyages," Bk. II., p. 369; and Moulton, in his "History of New York."

II. Other writers have suggested a second Spanish theory: these hold that it is highly probable that the Spaniards—who, as above mentioned, are known to have visited the St. Lawrence before either the French or the English—on observing the high banks between which the River of Canada poured its waters into the mighty Atlantic, in their astonishment and admiration compared the river to a mountain torrent leaping down some ravine or chasm, and called it Canada; which word, perhaps, the aborigines picked up and repeated to the French, who gave it to the country on both sides of the river.

III. John Josselyn, Gent., in the fifth chapter of his curious and amusing book, published in 1672, and entitled "New England Rarities, discovered in birds, beasts, fishes, serpents, and plants of that country, also a perfect description of an Indian Squa, in all her bravery, with a poem not improperly conferred on her," says, speaking of Canada, "the country was called Canada from Monsieur Cane." We believe, however, that this derivation depends solely on the authority of Mr. Josselyn, and is held by no other writer.

IV. Another conjecture on this subject is thrown out by Dr. Davies, a member of the Council of the Philological Society of London, in an article lately published in the *Canadian Naturalist*. He fancies that

the name may have an oriental origin, "for," says he, "I met some years since with the word Canada in a very learned article on the Canarese language and literature, in 'Zeitschrifter Deutschen Morgenlandischen Gesellschaft,' for 1848, p. 258, where the erudite author gives *Canada* as another form of the names *Canara* and *Canata*, from whence we doubtless get the geographical names Canara and Carnatic in Southern India. The occurrence of the word reminded him that Columbus and the early voyagers thought that they had stumbled on the eastern coast of Asia, and it suggested that as the American Islands were called the West Indies after the East Indies, so it was possible part of the main land was called *Canada*, in reference to that part of Hindostan that was so named, either because the voyagers took it for a portion of India, or because they fancifully chose to give the name to the new continent.

V. As before mentioned, some philologists have sought for the derivation of the word "Canada" among the various languages and dialects of the natives of the country. Jeffreys, in his "Historia Americana," gives a derivation which, as far as we can learn, rests on his authority alone. He says, "the word Canada is Indian, and derived from two words, namely, *Can*, a mouth, and *ada*, country, and so means '*the mouth of the country*.'" This name probably was first given to the River St. Lawrence, which, at its *embouchure*, resembles somewhat the mouth of an animal.

VI. The last theory that we will bring forward is that which is most generally held, and is most probably the correct one. Those who support this theory maintain that the word Canada is derived from the Iroquois word *Canata*, a town or village. The word Canada first occurs in the narrative of Jacques Cartier, who entered the St. Lawrence in 1535, and was the first European who explored the interior of the country. He heard the Indians talking about their town of Stadacona (which was situated near where the City of Quebec now stands) as "Canata," or "Kanada," and he applied the name to the whole country; which name this, the brightest jewel in Britannia's crown, has ever since retained. In his narrative he remarks, "Ils appelent une ville, Canata."

Charlevoix, in his "Histoire de Nouvelle France," Vol. I., chap. 9, speaking of this word, says, "Quelques uns derivent ce nom, du mot Iroquois, Kannata, que se prononce *Canada*, et signifie un amas de cabanes."

The celebrated chief Tyendinagea (better known by his English name of Captain Joseph Brant), in his translation of the Gospels, always uses this word to express a town or city. And in all other translations into the Mohawk, and its cognate dialects, the Onondaga, Oneida, &c.,

similar words are used, as "A City called Nazareth" is "Ne Kanadagongh konwaytsk Nazjareth," in Mohawk.

Mr. Davies, in the excellent article before quoted, says, "this is the explanation which appears now to find most favour, and, though not satisfied with it myself, I must add that it is somewhat supported—as it struck me—by the analogy of another term, namely, *Canuc*, which is used vulgarly and rather contemptuously for Canadian, and which seems to me to come from *Canuchsha*, a word employed by the Iroquois to denote a '*hut*,' (see *Arch. Am.*, Vol. II., p. 322.) Hence a Canadian is a townsman, a villager, while a Canuc is only a 'hutter.'"

M. M.

ON THE CULTIVATION AND MANUFACTURE OF FLAX AND HEMP IN CANADA.

BY THE EDITOR.

FLAX AS A FARM CROP.*

Flax is one of those hardy plants which grow upon almost any kind of arable soil capable of producing average farm crops in common cultivation. Like other plants, it has its likes and dislikes, and succeeds best when cultivated on a medium rich sandy loam. The fibrous nature of its roots causes it to delight in a deep and open soil, through which they may ramify, both vertically and horizontally. Low alluvial soils tend to encourage mildew, which, not unfrequently, attacks flax cultivated in such situations in America.

Rotation is almost immaterial, provided the soil be in good heart and free from weeds. In Europe it is made to take every position which can be assigned to it in rotation with other crops, convenience generally being the rule which determines its place, but when special attention is devoted

* It does not come within the scope of this article to discuss, or even to describe the minutiæ of flax cultivation, or the preparation of the fibre. The reader who is desirous of devoting attention to this part of the subject will find ample information in "Our Farm Crops," by Professor Wilson, of Edinburgh; also in various articles and correspondence in the *Canadian Agriculturist*; Kirkwood on Flax in the Parliamentary Reports. A small pamphlet entitled "Flax, directions for its Cultivation and Management." "A manual of Flax Culture." (Moore, Rural Manual, Rochester, N. Y.) The same remarks apply also to hemp.

to rotation, practice serves to indicate that it should follow a straw or hoed crop.

THE SEED.

European flax-growers exercise the greatest care in the selection of their seed. In Germany particular value is attached to linseed from Courland and Livonia, where the soil and the nature of the climate, especially the short hot summer, bring the flowering and fruit time near together; so that the flowers, being simultaneously and uniformly fructified, produce ripe and perfect seeds.* The Belgians, also, always select Baltic flax for their seed. For the heavy soils the Dutch seed is frequently used, which is the produce of Riga seed, once grown in Flanders. The American seed has been tried, but experience has shown that the plants had a tendency to grow branchy instead of a single erect stem; and although good for seed purposes, a large portion of the fibre was necessarily lost in scutching. In the regular flax growing countries, where they rely greatly upon their flax as the money-producing crop, they always obtain a new supply.†

Professor Wilson recommends sowing merely sufficient foreign seed to reproduce the quantity required for the succeeding flax crop, in order that a clear sample may be obtained, for foreign seed is notoriously dirty. This practice is generally followed in Belgium and Ireland.

The quantity of seed sown varies from one to two bushels to the acre. The larger quantity being used when flax is grown for the sake of its fibre. Thick sowing induces the plant to throw up a tall slender stem, and its fibre is developed at the expense of the seed. When sown for fibre and seed, it is recommended to be sown earlier than when seed alone is the object of its cultivation. The seed should be very lightly covered, a common bush-harrow being used for the purpose, and the work finished with a light roller.

Sown in the last week of April, or the first week in May, after danger from frost is over, the flax crop will be ready for pulling in Canada about the middle of July, according to the season and the latitude, and the exact time for pulling, if both fibre and seed are to be saved, is a matter of much importance. "In Belgium—and we instance that country, as the flax cultivation has a higher importance there and receives far more attention than with us—the way they proceed is this:—A full grown plant

* Liebig's Natural Laws of Husbandry.

† The amount of Riga flax seed exported for sowing in 1850 was 126,518 barrels. Each barrel weighs about 200 lbs, and contains three and a half bushels. The prices of Riga seed have ranged from 35 shillings sterling to 53 shillings per barrel, or about $2.50 to $3.75 per bushel, within the last twenty years.

is selected, and the best matured and richest capsule is taken. This is cut across with a sharp knife, and the section of the seeds examined, if they have become firm inside, and the outside has assumed a good deep green colour, the plant is considered fit for immediate pulling. At this time the entire plant will exhibit signs of its approaching maturity—the bottom of the stalk will be seen to have assumed a yellowish tint, and have become much harder to the touch than it was before, good indications of an interruption to the circulation of the juices of the plant. If this altered condition be allowed to go on by the plant remaining in the ground, the change of colour will rapidly make its way up the stem until it reaches the capsules, and then the seeds will be found to be fully matured, quite hard, and to have assumed the dark colour with which we are so familiar in the market samples. The next stage of the plant would be the bursting of the seed-vessels, and disjection of their contents, and the decay of the entire plant; but to preserve both seed and fibre, the plant should be harvested at the earlier stage, at which time the fibre is at its best condition. If left until the seeds are quite matured, the stem gets hard and woody, and the fibre is apt to get much broken in the subsequent process of separation. Long experience has proved that this is the most profitable time to pull the flax; for although the seeds are not at that time fully ripe, yet if allowed to remain in the sheaf, they will absorb from their integument a quantity of sap to render them sufficiently mature for the purpose of vegetation, though perhaps for commercial purposes their market value may not be so high as if allowed to stand a little longer in the field."

TAKING THE CROP.—FLAX-PULLING MACHINES.

As it is probable that the ordinary mode of taking the crop, technically called "pulling," will be commonly practised for some years to come in Canada in many localities, a brief reference to it is necessary before alluding to the flax-pulling machines. Flax is pulled, stem and root, by the hand, bound in small sheaves to dry the fibre and ripen the seed thoroughly. It is then stooked, and when cured it may be housed at once. The idea that it is necessary to pull flax by the hand in place of using machinery for gathering it or cutting it, is fast giving way to more advanced opinions.

There can be no doubt that the supposed necessity for pulling flax by hand has been one cause for the neglect of its cultivation, "but it need not be so for the future; it is now found, that when the ground is smooth and well rolled, it may be as well cut with the reaping machine, except for the very finest fibres; in this case a machine for pulling it has been invented, which executes the work with great rapidity, and at a very

small expense."* Such is the evidence of competent men in America.—In the United Kingdom Professor Wilson says, "If the tillage operations of the farm have been properly carried out, and the directions given as regards tilth of surface, and rolling after the seed is got in, has been attended to, there is no reason why we should not avail ourselves of the 'mowing machine,' which is now doing such good work in our grass fields, and cut down our flax, as near the ground as possible, in the same manner." For all textile uses, the portion of the fibre, of any value, exists only in the stem above the ground, the lower part of the stem cut off by the mowing machine is worthless for fibre producing purposes, and arrests the process of fermentation when in the "steep." The ends or buts of the steeped straw are also injurious in the process of dressing the fibre, so that on several grounds the use of the mowing machine is preferable to pulling.

RIPPLING.

"Rippling," or the process of separating the seed from the straw; is best accomplished with a common rippler or comb soon after the crop is cut, if it be delayed until the winter, it undergoes a beating process, which separates the seed from the capsules without difficulty. Rippling can only be undertaken with safety soon after the crop is pulled, as the fibre becomes too brittle for this process if the plant is permitted to get thoroughly dry. The seeds may either be used directly as food or sold for the extraction of the oil they contain, and the manufacture of oil-cake.

THE ROTTING PROCESS.

We now arrive at the most serious objection to the extended cultivation of flax, at least in this country and the United States. The rotting process in unskilful hands is always uncertain, and frequently leads to disappointment and serious loss; nevertheless it is essential that this necessary part of flax manufacture should be carried on within a few miles of the spot where the crop is grown, otherwise the expense of carriage of the straw would so far diminish profits as to render flax cultivation unremunerative. About three-fourths of the entire weight of the straw is useless for textile purposes, but it is not useless as fodder or manure. Since the straw will not bear the expense of transportation to any considerable distance, it is clear that the farmer must either consent to perform the rotting, breaking, scutching, and hackling processes, as they

* Report on Flax and Machinery for making Flax Cotton: By a Committee of the New York State Agricultural Society.

do in Ireland, or factories for the express purpose of preparing the straw for the manufacturer must be situated near where the flax is grown. A flax district must, as it were, be created, and a factory erected within the limits of the district, just as saw mills are generally built near the supply of timber, instead of remote from it. Experience shows that where a constant supply of flax is cultivated, and enough to support a factory can be relied on, there is never any trouble or difficulties in finding enterprising and capable men willing to erect and work a factory. It is a want of mutual confidence on the part of the grower and the flax-factor which has checked the cultivation of flax in Canada: the factor has not erected his mill, because the farmer showed no reliable disposition to cultivate the flax, and the farmer refused to grow his crop because he was not sure of the factor being ready with his mill to consume it. It is thus that a generation has passed away without any improvement being made, and those lessons of experience which the first settlers had learned in the cultivation of this plant and its subsequent manipulation, or knew before they emigrated from "home," have not been transmited from father to son; hence the present generation, as a class, have actually to be taught a portion of that valuable industry with which their fathers were familiar, and by neglect has grown out of date and perhaps out of remembrance. The State of New York cultivated 46,000 acres of flax in 1845; ten years later the area under that crop had diminished seventy-five per cent. The United States, in 1850, produced 7,709,678 pounds of flax; in 1860, only 3,783,079 pounds, a diminution of more than fifty per cent.

In order to understand the true nature of the preparation of flax for the market, and the difficulties and chances which attend it, a brief description of flax straw is necessary, so that the object of the successive manipulations to which it is subjected may be understood.

COMPOSITION OF FLAX STRAW.

If we examine minutely the structure of flax straw, we shall discover that it consists of five parts. 1st, the epidermis or outer covering; 2nd, the bark; 3rd, the fibres, which make it commercially valuable; 4th, the woody centre, or "shove"; 5th, the pith. The "fibres" form a tubular sheath round the woody centre or shove, and are cemented together by a mucilaginous compound which it is the object of the manufacturer to dissolve, so that the fibres may be separated after they have been removed from the bark and woody centre, into delicate filaments or fibrilla. The grand object of the flax-fibre manufacturer, then, is to separate these filaments uniformly from one another by a cheap mechanical or chemical process. This is effected in a greater or less

degree by the steeping, breaking, and scutching processes. The "steep" dissolves, after fermentation, the mucilaginous cement which binds the filaments into fibre and the fibres into a tubular sheath. The breaking process enables a considerable portion of the woody centre, or "shove," and the bark to be separated, the remaining part is removed by the scutching machine, when the material is considered to be fit for market purposes. All of these objects can be effected by hand labour, and the greater part of the flax fibre in Europe is so prepared; but hand labour in this country is too expensive, and would always operate as a bar to the extensive preparation of flax fibre among our farmers, hence the absolute necessity of performing as much of the mechanical processes by machinery as possible, if we desire to extend the cultivation of this valuable plant.

A great step has already been made in advance by the Government introducing into the country Rowan's flax-scutching machines. To this machine has recently been awarded the gold medal, from among forty competitors, at the late Agricultural Meeting at Lille, the centre of a district where the cultivation and manufacture of flax is the staple industry.

The cheapness of Rowan's machine places it within the reach of small manufacturers, and the excellent work it accomplishes, with the small amount of loss, gives it a practical recommendation of the highest value in extending the sphere of this important branch of industry.

It will be argued by many that in the present scarcity of capital in Canada it will be necessary to rely upon the farmer preparing the straw for the operation of the scutching machine; that there is no prospect of the establishment of a sufficient number of factories in districts where flax would probably be grown if the entire process, from the steep to the prepared fibre, is to be accomplished in one and the same establishment, the farmer merely supplying the straw. Although the arguments which could be advanced in favour of home steeping are very strong, yet they are far from opposing an obstacle to the gradual introduction of a modification of Schenck's process in factories especially designed for the purpose. Schenck's process is speedy, economical, reliable, and can be conducted throughout the year. It does not involve much outlay of capital, and has been actually introduced, to a considerable extent, in Ireland, where skilled labor available for the ordinary rotting process is everywhere abundant. In Ireland there are now upward of thirty establishments at work on this principle, requiring annually from fifty to sixty thousand tons of straw.

The mode of operation is simple in the extreme; it consists in submitting the straw to the solvent action of water at an uniform temperature of 80° or 90°. Instead of the flax requiring to remain in the steep for ten to twenty days, according to the temperature, the whole

fermentative process is completed in three or four days. The operation is altogether independent of the weather, and can go on uninterruptedly throughout the year. Tanks, with a hot water pipe passing through them, are all that is required. The results have been favourably reported on by the Irish Flax Improvement Society. The investigations of that body led to the conclusions that Schenck's process increased the yield of fibre, increased the strength of the fibre and increased the quality of the linen made from the fibre. Prof. Wilson speaks of this process in the following words: "This process is so simple, and its advantages over the old method so manifest, both in respect to time, quantity and quality of produce, that it is somewhat remarkable that, notwithstanding the knowledge which existed of the value of temperature in respect to fermentation, even indeed in reference to flax itself, it has only so comparatively recently been employed."*

In the Report of the Committee of the New York State Agricultural Society (Feb. 1863.) the following words occur: "It seems to us that our experimentalists have much neglected Mr. Schenck's method of steeping the flax in warm water at ninety degrees, with Mr. Pownall's improvements in exposing the steeped straw to the pressure of a pair of smooth iron cylinders, while at the same time a stream of water is made to flow upon the rollers, so as to wash away the softened organic matters which adhere to it." Numerous other processes for separating the fibre have been invented and to a small extent practised, but they are not suitable to Canada.

FLAX-COTTON.

The process for the manufacture of flax-cotton which some years ago excited so much attention in connexion with the name of the unfortunate M. Clausen, although previously discovered by Lady Moira in 1775, failed on account of the attempt to obtain uniformity in the length of the fibre by the simple process of cutting, which had the effect of leaving rough or "stumpy" ends, which so impaired the quality of fabrics made from the so called flax-cotton as to prove fatal to the success of the process. Nevertheless, well founded expectations are entertained that flax-cotton is no idle dream, and that a process will soon be developed for obtaining this result. Indeed so confident are persons interested in the cultivation of flax in the ultimate success of the project, that the United States Commissioner of the Census states in his report published in 1862, that "the manufacture of fabrics from flax-cotton has been commenced and success in a new branch of industry is confidently expected."

* "Our Farm Crops."

ENCOURAGEMENT OF HOME INDUSTRY.

With respect then to the encouragement of the cultivation of flax in Canada it appears essential that the following steps require to be taken:

1. The annual importation and subsequent distribution under careful and responsible supervision of a certain amount of Riga Flax Seed.

2. The establishment of flax growing districts, in each of which a flax mill for the preparation of the fibre should be established and efficiently sustained.

3. The purchase from the farmer of crude flax straw by flax factors at the district mills.

The introduction of Schenck's improved process and the employment of Rowan's scutching machines.

It is not to be supposed that the purchase of flax straw, at the district mills, precludes the purchase of fibre prepared by the farmer by the steeping or dew-rotting process, it is rather to secure a certain market for flax-straw in suitable condition, and by the employment of Schenck's process, and Rowan's scutching machine to prepare an article for exportation which shall by the price it will command abroad encourage private enterprise to establish mills in all suitable localities.

It is suggested that any government aid which the Minister of Agriculture may be disposed to recommend should be placed at the disposal of the Boards of Agriculture for Upper and Lower Canada, for the purpose of importing Riga Seed; also that handsome premiums be offered for a certain number of bales of flax, the produce of *district mills* either erected by private enterprise or joint stock companies, where crude straw would be purchased from the farmer and manufactured into merchantable fibre.

The experience of the past two years shows that the efforts which have been made in various parts of Upper and Lower Canada to encourage the cultivation of flax among our farmers is beginning to produce good results,* but before the introduction of this most impor-

*British American Land Company,
Sherbrooke, C.E., 23rd June, 1863.

Dear Sir,—I hasten to reply to your letter of the 20th instant, just received.

I can give you no exact statistics, but a few words will convey to you what has been done, and is now doing, on the subject by our people.

Throughout Lower Canada, some years ago, every farmer—whether French Canadian in the Seignories, or English in the Townships—grew more or less flax for domestic use. The French still continue the growth, for their own domestic manufacture, in small garden patches; but the practice was almost entirely discontinued in the townships when cotton goods took the place of the home-made linens to a great extent. The cultivation of flax is now being revived, but not for domestic use so much as for export to England, Ireland, and the United States.

tant plant as a farm crop becomes general throughout the country, the subject will have to be warmly entertained and discussed by the different agricultural societies and measures taken to secure a market for the

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The quantity grown has been as yet very small, but it is increasing rapidly, the only drawback being that the farmers are slow to be convinced that the market is likely to be permanent.

The townships of Eaton, Ascot, and Lingwick grew a small quantity last year. I have had the Eaton flax—which was dew-retted only—scutched by Rowan's machine, and have sent two sample bales home—one to Messrs. Marshall, of Leeds, the other to Belfast—to get a report as to quality, &c. The report from Messrs. Marshall is, on the whole, very favorable. I am, as yet, without any report from Belfast; but I believe they are spinning and making the flax into cloth, with the view of shewing its capabilities.

This year I have distributed about two hundred bushels of seed in the townships of Bury, Lingwick, and Eaton, and as the season is much more favorable than last year, I anticipate a very good result; I hope also to have this flax water-retted and not dew-retted. There are besides large experiments being made in flax in the Bedford District of the Eastern townships, including the counties of Shefford, Brome, and Missisquoi. In the village of St. Armand, in the Bedford District, a woollen and flannel manufacturer, of the name of Lagrange, has purchased flax (some of that grown in Eaton) to mix with wool, and with a most satisfactory result.

The Eastern townships, generally, are exceedingly well adapted for flax growing. The soil of the valleys (intervale lands) is very fine, and the uplands are mostly of very good quality. We have generally more moisture than in Western Canada, although I fancy the Western farmers are generally more painstaking.

We possess very great facilities, not only for growth, but for the after preparation of flax, in the abundance of water for steeping, and water power for scutching and manufacture into linen,

I am, dear Sir,

Yours faithfully,

R. W. HENNEKER.

Editor of the *British American Magazine*.

MONTREAL, August 10th, 1863.

DEAR SIR,—Absence from home for some time, and a pressure of engagements on the part of the writer since, have prevented an earlier acknowledgement of your much regarded favour of the 10th ult. We feel a deep interest in the culture of flax in this country, believing that, if properly developed, it may prove of very great value as a staple article of export and domestic manufacture. It has obviously this advantage over wheat, that it is not subject to the destructive attacks of insects and rust, which render the latter so precarious as a crop; nor does the market price of fibre and seed fluctuate so much as the cereals which have heretofore claimed the chief attention of the agriculturalist.

We are convinced that a general adoption on the part of our farmers of systematic drainage, deep cultivation, and rotation of crops, with a considerable breadth devoted to flax, would render our agricultural interest extremely prosperous; and with its agriculture, every other species of industry would necessarily advance in a corresponding ratio.

crude straw* besides circulating such information among farmers as will enable them to effect the water-rotting process in a satisfactory and profitable manner, if they prefer it, within easy reach of a scutching machine.

With the view to promote the growth of flax and hemp, we imported a quantity of Riga flax seed and Piment hemp, for sowing, which we supplied at cost. We have a sample before us of Riga flax grown this season in this vicinity, which measures forty-six inches. This description of hemp (piment) grows from ten to twelve feet in height.

We purchase from twenty-eight to thirty thousand bushels of flax-seed annually, which produces from fifty to sixty thousand gallons of oil and about five hundred tons of linseed-cake. The latter is mostly shipped to Great Britain, for cattle food. Our machinery *could work up a much larger quantity if the seed could be obtained*. This department of our works is idle for a portion of the year on account of the paucity of the raw material.

We enclose a copy of a circular which we printed last spring for circulation in the rural districts, and we shall be happy to supply any further information which we may have it in our power to contribute, to promote an object which we deem so important.

We are, very respectfully,
Your most obedient servants,
LYMANS, CLARK & CO.

Editor of the *British American*.

* In the State of New York last year, the average crop in Niagara County was one ton of straw and fourteen bushels of seed to the acre. The Lockport Flax-cotton Company contracted last year with the farmers of the neighbourhood for flax straw at $10 a ton. Flax seed is worth $1.50 a bushel.

THE SETTLER'S DAUGHTER.

BY MRS. HOLIWELL.

Authoress of the "The Old World and the New," "The Earles in Canada," &c.

CHAPTER V.

NELLY.

Owing to fatigue and excitement, Lawrence slept to an unusually late hour on the morning succeeding her ravine adventure. Beautiful visions had haunted her sleeping hours, but as the sun rose in the heavens "a change came o'er the spirit of *her* dream." Claridge was cold and stern to her, large tears rolled down her cheeks, her breast heaved with sobs, and she was truly glad to be aroused from so painful a state, by Maggie unceremoniously shaking her. "Miss Lawrence, what ails yer? You're as white as a sheet, and crying like anything broken-hearted! Here's a letter for yer from Mr. Claridge, he brought it himself an hour ago, but I wanted you to rest yourself, I knew you were tired out last night—there, read it, and get dressed quick or yer pa will have to pour out his own coffee."

Lawrence wiped away her tears and tore open the missive. Her face clouded as she read; it was overflowing with true and honest affection, but there was an under current of pain, of mental suffering, she could not comprehend. He begged her to have a little patience with him, to grant him time to write home and receive an answer, before he spoke of his presumptuous hopes to her father. He had lately received a letter from his parents desiring him to leave Swinton, as his year was nearly expired, and locate himself in the neighbourhood of New London, but now he wished to alter their decision, and prayed her indulgence.

This was a real trial to Lawrence; she could hardly retire to rest the previous evening without telling her father all, and how to keep the secret till Hemsley could hear from England seemed an endless period of probation. It never occurred to her that though he had not falsified he had suppressed the truth, he needed an English letter, but not from his parents alone! Lawrence strove in her love to bear her forced silence cheerfully, but it preyed sadly on her light heartedness, and her father several times enquired so tenderly what ailed her, that she could scarcely restrain the impulse she felt to throw herself on his neck and tell him her secret. However, she strove in employment to find peace. Claridge enjoyed but little of her society, his presence gave her as much pain as

pleasure; and her lover learnt that to tempt Lawrence from the straight path of duty, was not the way to promote her happiness or his own.

A welcome distraction arrived about this time in the person of Mrs. Sheldon, who reached Mapleton village, penniless and heartsick, early in June. She was pressed to accept the hospitality of the Vale, but respectfully declined, declaring her post was by her son, and beside him only could she take her rest. The unfortunate youth, who had so far recovered as to be able to walk about a little, displayed no pleasure at seeing his idolising parent, although the demonstration of her affection melted all who beheld it. He was rather annoyed than otherwise at her appearance; she was a plain woman, and the foolish boy had bragged so much of his origin, and talked so grandly of his descent, that it was mortifying to his pride to acknowledge a mother who might well pass for a decayed housekeeper or retired tradesman's wife. Mr. Gilbert had endeavoured, at Miss Mapleton's suggestion, to interest him in a prospect of future study, and he had listlessly turned over a few law books, but there was no life in his actions, no energy in his intentions. He only craved for the rapid lapse of time, that he might own his small property and go to ruin as quickly as he could desire.

One of Mapleton's smallest cottages being vacant in the suburbs of the village, Lawrence persuaded Mrs. Sheldon to take possession, the young lady furnishing it in plain comfort from the superfluities of the Vale, Ailsie secretly adding considerably to its appointments. Had Ralph been moderately contented his mother would have been happy, she had not felt at home before for years, driven from lodging to lodging, and distracted for means to pay her rent. She was not an independent, proud-feeling woman, and Lawrence's way of doing a kindness could not offend any person, so Mr. Gilbert, to his infinite thankfulness, was left alone in his humble dwelling. The change was certainly satisfactory to both parties, for Sheldon's indolence and want of principle provoked the self-denying student as much as his severity and industry irritated the pleasure-loving stranger.

Miss Glegg's interrupted friendship with Lawrence was resumed, and they frequently made a call at Mrs. Sheldon's shanty; they never saw the invalid, for frail in body and morose in mind, he shut himself up in his stifling little room, sometimes not vouchsafing a word to his devoted mother for a week together. He never recognized Ailsie's attentions to his parent, although that weak woman clung to the stronger, younger spirit from the first interview, and was never weary of dwelling on her charms to her son. Often through the long summer evenings the elder woman and the younger would sit in the porch, discussing the failings and peculiarities of the object of their mutual regard, poor, simple Mrs.

Sheldon never suspecting her companion of other motive than christian charity.

Miss Glegg frequently passed an hour at Mapleton Vale on her way home, and then music and conversation charmed the old Lieutenant into the belief that it must be his sad fancy that had stolen away the roses from Lawrence's cheek. Claridge was grateful to Ailsie for the opportunity of being with his lovely Lawrence, how sweet the privilege of turning over her music, of joining his voice with hers in pleasant harmony! What happiness to seek her soft glance and return it with one of liquid fire! To kiss a floating curl, a stray ribbon, a fallen flower that had graced her hair, or nestled in her bosom. The young girl felt his devotion, it gave her the wildest joy, only why could she not share it with her father? Why need they address each other as bare friends? Why veil their loving looks from a parent's indulgent eye?

Hemsley's reflections, when he gave himself time to reflect, were far from enviable; anxious thoughts of past folly, of may be a human heart aching for him across the Atlantic, disturbed his pillow and haunted his working hours. In Lawrence's presence alone could he find forgetfulness and peace, and now that favour was grudgingly granted him, for every moment of her leisure was devoted to her father, as if she sought in her attention to overcome the recollection of her deception, for deception her unwilling silence seemed to her transparent mind, accustomed from infancy to live in the full daylight of her father's eyes.

One evening after a long and pleasant ride with her father, Lawrence was struck with the ghastly pallor of Maggie's countenance as she opened the door. Before she could question her she was gone; but Lawrence, quickly throwing aside her habit, sought her in her own domain, the kitchen. She was working as energetically as usual, folding clothes for the next day's ironing.

"What is the matter, Maggie?" said her young mistress, "has anything gone wrong?"

"Don't come here, Miss Lawrence, with your softness and your pitiful ways, the curse of God is on me and mine! I wish I was dead, and cold, and stony like my heart. Go away, Miss, I hate you just now, I shall be rude and bad to you, and say things you ought not for to hear."

"Maggie, Maggie, hush! you are wicked to talk so, your face is pale with bitter anger; lay by your work and tell me what it is."

"I have nothing to tell you, Miss Lawrence, I can bear my own burdens, though savagely."

"But you might bear them meekly if you shared them with somebody. Has anything happened to the children? You frighten me, Maggie, you look so dreadful."

The woman had sunk into a chair beside her basket of linen, clenching

her hands tightly, as if resolved to preserve a dogged silence. Lawrence approached her timidly, but when she saw the unspeakable anguish that was depicted on her coarse features, every feeling was swallowed up in pity, and, loosening Maggie's clutched fingers by very force of tenderness, she knelt by her side, saying, "God afflicts not in anger but in love, Maggie, therefore we should submit, not rebel; accept the cross, and it will be lightened by the very submission. I know but little of real sorrow, but I have found my small troubles lessened by acknowledging the superior wisdom of our Heavenly Father, and waiting patiently for the end."

"There's no end to my grief, but death."

"Oh, Maggie! there is nothing irretrievable in this life, tell me your hopeless sorrow, let us see if there is no 'silver lining to the cloud.'"

Maggie looked straight into Lawrence's face, and in a hollow tone replied, "Nelly is ruined. I hope never to see her again alive."

"Maggie! Maggie!" shrieked Miss Mapleton, recoiling from her with horror, "curb your passionate tongue, God may grant your wicked prayer. How is Nelly ruined, where is she, what do you mean?"

"I do not know where she is, or what has become of her, I took her shoulders with my two strong hands and put her out of doors, bidding her never to seek my face again."

"What have you done? Nelly, so proud, so high-spirited, will take you at your word! If, indeed, she has sinned so deeply, the more she needs your tenderness; if your door is shut against her who will open theirs? I fear you have done very wrong, how long is it since you parted?"

"An hour, may be, but it seems twenty years to me."

"Put on your hood, Maggie, and let us go and seek her."

"Seek her that's brought shame on me? never!"

"Then I will go alone."

Lawrence gave a last look at the stony face to see if there were any relenting, then turned hopelessly away. She dispatched Paddy to explore the neighbourhood, while she walked to Mrs. Sheldon's cottage herself. Although it was getting late, Lawrence, brave at heart and strong in her good resolves, tripped quickly along unconscious of timidity. The summer moon cast a bright radiance over everything, and in a quarter of an hour she reached the cottage. Without questioning wherefore, she linked Nelly's misfortune with Ralph Sheldon, and fancied the unhappy girl might fly to her betrayer in her hour of need. What excuse to frame for her visit, when at the humble door, she knew not, excuses were never ready on Lawrence's lips; a simple observation saved her the trouble. The window was partially open, and through it issued a sound of reading; she stooped her head, and saw the pious mother, Bible in

hand, reading aloud to her son, who, stretched on his bed, was listening in sullen silence.

"There, mother, that will do," he exclaimed petulantly, "go to bed, you would go on buzzing all night, I believe,—give me a cigar, and leave me alone."

As Lawrence turned away heart-sick, but satisfied that Nelly had not sought Sheldon's roof for protection, she reflected that Mrs. Sheldon might achieve more by catering for her son's amusement than by aiming higher; a child must be taught to stand before it can walk, to learn its letters before it can read; so must a fallen human soul rise by short steps, we must be content to lead it by circuitous and flowery paths to the stern walk of virtue. Lawrence retraced her steps, sadly thinking of poor, pretty Nelly. Paddy returned after a couple of hours' fruitless search, and she was fain to submit to inactivity during the night; as usual all her anxiety was shared with her father, who severely blamed Maggie for her harshness. The following morning Lawrence renewed her efforts without reference to Maggie, whose hollow eyes and cadaverous face shewed the suffering she was enduring. Her master's words echoed in her ears, "Maggie, Maggie," he said, as she brought him his boots for his morning walk, "who made you a judge over Nelly? if you have meted to her according to her deserts, how will the same judgment find you?"

Claridge, indefatigable in everything that interested Lawrence, set his energy to work to learn poor Nelly's fate. Alas! it was so sad and sinful that oblivion had better have shrouded it forever.

Peter Waylett, the fisherman, while fishing the previous night, two or three miles below the village, where the rocks are steep and the water deep and dark, was attracted by a heavy splashing sound; he drew his net and rowed to and fro, till presently he espied a body floating near his boat, the bright moonlight revealed a human form of female mould, with long black tresses undulating like seaweed on the surface of the waves. With difficulty he lifted her into his small craft; the breath of life was scarcely flown, and he thought if remedies could have been instantly resorted to she would have recovered. He gained the shore as quickly as possible, his log shanty was close by, and he and his wife tried every means through the night to restore animation. Their efforts were useless. The stained, outraged, passionate soul of Nelly had sought another tribunal than the world's. Would Supreme Power exercise mercy or justice?

Claridge learned all this from Peter Waylett, whom he met in the village inquiring for Nelly's friends. Hemsley took him to Mapleton Vale to tell his story in his own unsophisticated manner. They found Lawrence and her father sitting on the verandah, a few words explained the cause of their visit. Plentiful tears rolled down Lawrence's cheeks

as she listened to the fisherman's simple recital; as he finished she became conscious of another presence, and looking up saw Maggie standing at the open window, with a face as rigid and livid as dead Nell's. She had heard all, she knew her wicked wish was granted, her mad words registered in fiery letters for eternity. Vain were Lawrence's compassion and pious soothings: no tears dimmed the stony glitter of her eyes, no bursting sobs relieved the anguish of her heart. Good Peter Waylett evidently believed poor Nelly's death was accidental, whatever Mr. Claridge and Mr. Mapleton may have thought, they spoke of it as a shocking casualty; but Lawrence and Maggie, though not acknowledging the dreadful certainty of Nelly's self-destruction to each other, felt a horrible conviction of her sinful suicide. Over and over again Lawrence realized the mad leap of the betrayed, goaded soul, into those dark deep waters. It was the first time in her life that gross sin had intruded its downward career and summary punishment on her observation, and the sight chilled her young soul with terror. It was not only Nelly she saw in the miserable event, but the weak and ignorant all over the world; she caught a glimpse of life, unjust, cruel, selfish life, and her heart grew sick and sorrowful. Poor Nelly's obsequies were conducted in the quietest manner. Miss Mapleton went to the humble shanty of Peter Waylett and wept over the pale corpse of her loved though humble companion, she smoothed back her rich black hair as she lay in her coffin, and exclaimed with a burst of indignant tears, "How wicked must the world be if such a tissue of wrong and sin could reach us here and lead a human soul to perdition! How can Divine Justice be satisfied with such a disparity of punishment, what misfortune that can overtake him can equal the misery of his victim? God of the poor and the fatherless, guide thy erring creatures and pity their frailty!"

"Were you speaking, Miss?" inquired Mrs. Waylett looking into the room, with a fat baby in her arms.

The interruption recalled Lawrence's wandering thoughts and restored her composure, and after thanking the fisherman and his wife for their christian charity, and recompensing them for their loss of time, she took her lonely way home. On the road she saw Maggie, bent and bowed, following an unfrequented path to Peter Waylett's shanty. No remark was made by Miss Mapleton as to her absence or the object of her visit, but she prayed earnestly that poor Nelly's dead face might preach a sermon to the mother's proud and rebellious heart. Nothing could exceed the kindness and indulgence of the young mistress to her stubborn domestic, and the strong woman's rough attention and undemonstrative affection proved that she was not indifferent. She strove, though with but little success, to moderate her harsh manners to the others, who clung to their mistress with tenfold the affection they felt for their

mother; but as they were neither as self-reliant or as handsome as their unfortunate sister Miss Mapleton anticipated a happier destiny for them.

Poor Nell died with her dark secret unrevealed. Either she loved her betrayer too well to expose him, or she had a blind instinct of the uselessness of appeal to so selfish a nature for protection or reparation; be that as it might, his sin was buried for ever from human sight, and no one, save Lawrence in the solitude of her own thoughts, linked Nelly's sad death with Ralph Sheldon. There are other murderers than those condemned and executed by public justice.

Claridge's long looked-for letters from England arrived at last, they proved satisfactory; whatever little affairs he had to arrange were amicably disposed of, and he set off for the Vale in brilliant spirits. The first blast of autumn's breath had already painted the forest, and it was through an avenue of gorgeous hues that he approached the house. It was, indeed, a glorious evening in every respect, the light of joy returned to Lawrence's face when she learnt there was to be no longer a concealment from her father, she laughed at Hemsley's anticipations of paternal anger; for now that other objections were removed he magnified his own deficiencies and Lawrence's wealth, and felt that nothing short of the passionate love he bore her could brace him up to the courage requisite to ask her hand from her idolising father. They parted with the understanding that Hemsley was to come in the morning and have a private interview with the Lieutenant.

CHAPTER VI.

MARRIAGE BELLS.

Lawrence could not sympathise with Hemsley's fears and sad prognostications concerning the way her father would receive his proposal. In vain he set before her the worldly estimate of the case, the probable selfishness that would be imputed to him from her father downwards to the most ignorant inhabitant of Summerford.

"Dear Hemsley," she whispered, as she walked through the hall with him on his way to the old officer's private sitting room, "I have been thinking of all you said last night, and the more I think about it the more I feel sure you are wrong. If papa were poor, he might object, because he would not like to see me want for anything, but as it is, what use would more money or land be to us? Papa is a wise man Hemsley, he values other things besides wealth."

So, cheered by Lawrence's confidence and faith, Hemsley braced up his man's heart and entered the *sanctum sanctorum* of Mapleton Vale. This apartment, exclusively devoted to the master of the establishment,

was furnished and decorated with eccentric taste. The walls were hung with tapestry of Hindoo manufacture, a legacy from his brother, Ensign Mapleton of the Royal Bengal Artillery. Poor Horace! so dashing, handsome, and brave! he found an early grave under the tropic palms, another victim to the desolating pestilence that carries off more of Britain's sons in that unwholesome clime than all the ravages of war. In one corner were piled the vestiges of his naval career, and crowning all a French flag, that as a mere boy, a midshipman of a year's standing, he had by a bold stratagem taken from an enemy's ship, during a fierce encounter in the Baltic. Then there was his cabinet of treasures, so oddly ordered, strange specimens of ore and pebbles found on the Huron shore, mixed up with shells from the Mediterranean and the Baltic. Yet he never for a moment confused their history or their class. Leonore's letters, yellow and faded with age, were laid side by side with little memorials of Alice or of Lawrence's infancy, dead flowers, trifling articles of jewelry, &c. Mapleton was a man of reminiscences and dreams, ; fancies, fostered no doubt by the many years of utter isolation he had spent in the wild woods, before Lawrence with her innocent prattle followed him wherever he went, and left him no refuge from her loquacity. A small bookshelf comprised his library, he was not a studious or a learned man, he enjoyed the experimental sciences as far as he could prosecute them practically, he knew more of the plants, insects and birds of the country than most people, he was deeply interested in natural phenomena, and was so fond of exploring among the rocks and strata that the less enlightened villagers thought he expected to find a buried treasure. Vestiges of these pursuits adorned his room, stuffed birds, winged insects, different earths, wild herbs, aquatic plants, transformed his apartment into a miniature museum. The only link there to the external world of selfishness was a small, high writing desk, containing deeds, business letters and account books. Mapleton had a way of his own in business, and his book-keeping would have puzzled an accountant. Yet his affairs were always prosperous ; he was just while he was benevolent, and, although liberal in giving, liked his due. That desk was never approached but when necessity compelled, yet if there was business to be done, it was done at once, no procrastination or flinching from present duty, he never indulged himself till work was over, but it was with a smile of satisfaction that he turned frum "debit and credit" to his garden, his favourite studies, or his daughter.

The old gentleman was mending some fishing tackle when Claridge presented himself, he expressed no surprise at being sought in private for Lawrence had forwarned him of the visit though not of its purport, possibly he may have had his own suspicions. He went on with his employment consulting his visitor on the subject, and appeared so far

from suspecting any motive of importance to have influenced Hemsley in seeking the interview that the young man's courage almost failed him. At length, after a silence which it was his part to break, as Mr. Mapleton had made the last observation, he said desperately, "My father wishes me to leave Swinton as soon as I can, the very small capital he can afford to give me is at my disposal at once, and he suggests the neighbourhood of London as a desirable place for settlement, yet leaves it to me to decide, and thinks if I could get the benefit of your advice and experience it might be very useful to me."

"So, so, young man, you have made up your mind to live among us, to become naturalised, aye? Well I do not know that you could do better, but you should weigh well all you turn your back on, and count the friends you leave, before you resolve on a matter for life. I had seen more of the world than you have when I settled myself in this wild spot, and besides I had a powerful incentive that in your case is wanting."

"I have nothing to resign Sir, I daresay the world is well enough to those whom fortune favours, but to one like me, a poor parson's poor son, it turns a very cold shoulder. I do not know what your incentive was, but I doubt if it could have been a stronger one than mine."

"Indeed, I thought your motive in settling here, was the very laudable one of improving your fortunes?"

"That object is subservient to a higher."

"Well, well, I do not seek your confidence beyond what you voluntarily give me, I must believe your motive a good one, for I have watched your course with pleasure and appreciate your morals and your manners."

"I have sought your presence to-day Mr. Mapleton with the double intention of asking your advice concerning my pecuniary affairs, and of making known to you the high object I have in view. Imagine the utmost presumption the wildest ambition could prompt, then say if you can guess my incentive to energetic toil."

"Really, Mr. Claridge, you speak so enigmatically I am quite at a loss to imagine what you mean, when you spoke first of an incentive to action I thought most probably love quickened your arm, but now you refer to ambition I must own I can see no hope of gratifying it as a small farmer in an out of the way district, if you wish me to understand you, you must speak more plainly."

"Then Sir, I love your daughter! she is the goal of my expectations, the star of my future, let me speak before you overwhelm me with your reproaches, not intentional, not by design have I won her heart, or given her mine, far from it; I fancied I had left it behind me and sported in the sunshine of her presence secure in my armour. When I found out my error it was too late to retreat. I am aware of my numberless deficiencies, of my inferiority to her in all respects, I can only plead in

self defence that I love her, I believe as faithfully and truly as man can love, will you believe this? even if you forbid any engagement between us."

The old man passed his hand dreamily over his forehead, the great trial that he had been looking for the last year or two had come at last, and it was not so deadly a blow as he expected. If Claridge were ever so devoted, or Lawrence ever so fond, he had not the means to carry her off to his castle and leave him a prey to melancholy. There were bright lights in the picture and perhaps his daughter might be made happy without so great a sacrifice on his part.

"Does my daughter sanction this application to me?

"She does," returned the young man, "indeed I sought this interview almost entirely at her instigation, for my own moral courage forsook me at the prospect of making such a proposal."

"And why?"

"What have I to offer your child but a devoted heart?"

"Are devoted hearts so common that she could afford to barter it for acres or bank stock? Hemsley Claridge I have expected this, and have watched you as I would my own son since your arrival here, and I tell you frankly that one offense in morals or manners would have banished you from my house. I am not going to pass an eulogium on you, I give you credit for too much good taste to tolerate it, but I will say that I would rather give my daughter to you, poor as you are, and poor and proud as your friends are, than bestow her on some selfish wretch, in whose eyes her wealth would be her chief charm, and although your circumstances lay you open to suspicions of your disinterestedness I know you are not actuated by base motives. I have watched your every look, noted your most trifling words, and I feel confident that although you are not steadily grounded in good habits and high principles, you aim to do what is right, and meanness and selfishness have no part in you. I do not fear that I shall have to repent of my generosity to you."

"Never, Sir, so help me God!" replied the youth wringing his hand with emotion, as much with gratitude at this voluntary tribute of good opinion as for his unparalleled kindness. The old gentleman said they must not keep Lawrence in suspense while they were settling details that could be arranged another day, he had better find her, tell her of his success and bring her to her father to receive his blessing. The ceilings were scarcely lofty enough for the elated lover, though it must be owned his rapture was somewhat damped by finding Lawrence quietly hearing Maggie's children read. How could she be so self possessed when he was so agitated? she did not feel much for the chance of disappointment when she could employ herself thus! The young creature burst into a fresh joyous laugh as he muttered his remonstrances.

"Dear Hemsley, there was no risk, I was as certain of papa's answer as I am of your love, I do not even ask you what success you have had, and you do not look so very pleased that I might take it for granted, still I know it, and am perfectly at ease and at peace in my confidence."

Claridge clasped her to his beating heart and whispered some confused words of angels, &c., that young men are apt to do in such circumstances, and then they returned to the Lieutenant's sitting room to talk over their happiness and receive his congratulations.

The following day Mr. Mapleton opened to Hemsley and his daughter his plans for their future. He could not spare Lawrence, he said, in his old age, he looked to her to close his eyes, had she been a boy he should have expected him to have taken many cares from his shoulders, and by attending to business and superintending the estate, he would have had leisure to follow those pursuits in which he found amusement, and go down peacefully to the grave. That task now devolved on Hemsley, he must take a son's place, there was a great deal to be done, his office would be no sinecure, he was particular to a figure at the same time he exercised judicious benevolence, and he expected his successor to follow in his paths and improve on his schemes.

"I shall be the master in honour and name," said the old officer, "you in power and work. You must rent out to advantage, clear the remaining wild land, improve that under cultivation, watch the funded interest, sell out, or buy in, according to the times, see that those in subordinate places do their duty, from Paddy upwards, reprimand the lazy and assist the unfortunate. Lawrence will take care of the old and the sick and keep a sharp eye to the school interest, between coaxing and admonition secure a good attendance of children both at the common and Sunday schools. Altogether my young friend your labours will be pretty onerous, does your courage fail you?"

"No indeed, only I doubt my capacity; at all events I must pray that my induction may be gradual lest your affairs fall into confusion through my ignorance."

"Now, that we may not have to revert to the subject again, as not being a pleasant one between relatives, I wish you to understand what your income will be, here is my last year's blue book, the revenue I trust, under your administration will not be less; it should increase every year for half a century to come. Well, as I was observing, you will there see the sum total of my returns, half of them for the future will be yours and your wife's."

Poor Claridge's cheeks flushed crimson; the old man opened the volume in question, and placed it in his hands, but the figures swam before his eyes and he was not much the wiser for his examination, the

only feeling of which he was sensible was that a lifetime of devotion was not sufficient to give to either father or child.

"Lawrence is a good housekeeper," continued Mr. Mapleton without noticing the young man's confusion, "and will never waste your means, trust her as implicitly as I have done, let me say this much to you, as an old man who has experienced life in many phases, and may be supposed to know something of mankind. Live together literally, never have a separate thought, as a good basis to begin the habit upon, never spend a cent without mutual account, don't be trying to make the other believe you are free from little faults and weaknesses, because human nature is frail; but be natural, be truthful to each other. If you, Lawrence, want a dress richer or more gaudy than Hemsley likes, tell him so, and say you would be the happier for it, and if Claridge wants to spend money in some Utopian scheme that he knows you would not approve, still let him consult you, talk over it together; listen to her view of the case Hemsley, combat it, go against it if you will, but do it openly, be ready from the beginning to say to each other, "I do not see it in your light, I like my own way best, I wish to do so and so," and let the other yield."

"I think, dear Papa, your homily will be useless, for we shall always be of one mind."

"Thank you, Lawrence, that was just what I was going to say," said Hemsley with a grateful smile.

"Well, children, put my axioms by, they will keep, only remember to bring them out when they are needed; by the bye, when are you going to leave Swinton's?"

Claridge looked at Lawrence who smiled and blushed, the old man understood the state of affairs and said with a sigh, "I suppose now that things are so far settled, it is of no use putting it off, and still less use for you to be giving your strength and labour to that rascal. Well, Lawrence, when is it to be?"

"When you and Hemsley will, papa."

"Say next Sunday then."

"Oh! papa, how can you!"

"You said when I will, and I will next Sunday, what is to prevent? You want no *trousseau*, the garden blossoms will make your bridal wreath, your muslin dress your wedding robe, Maggie will supply us with dainty fare and Mr. Muckle will be here to preside."

"Dear papa, say Christmas if you please, I wish to have some pleasure in dwelling on the past and looking to the future, let me live Lawrence Mapleton, your own darling, a little longer."

She threw herself on her dear old father's neck with such affection

that he could scarcely steady his voice to say, "Well, Claridge, what do you say?"

"Lawrence should have the privilege of deciding altogether, her wish is mine, whatever it may be.

"Very well begun really! then Christmas let it be."

Quickly indeed flew the intervening time to all the actors in the scene. Hemsley had many letters to write, to his parents, his sisters and the very few friends he wished to retain as a Benedict. Mapleton insisted on his keeping for his own immediate and private use the money sent out by his father, though he desired to throw his mite into the general stock. That he needed the supply may be well imagined by those who know the inroads farm work makes on garments of the strongest description, especially when, in addition to that, he had been in the habit of airing the best of his wardrobe in daily visits to the Vale. Then he had an opportunity of indulging his taste and affection in a few gifts to Lawrence, all well chosen, useful and lasting. The delight with which she put on the little pearl ring he brought her from New London had in it something childish, her young fresh feelings had never been blunted by any previous pleasures of the kind, and every delicate thought for her happiness and enjoyment was appreciated by her at its full value.

The news soon spread through the village, and everybody had their say on the subject.

"Poor young thing, to be snapped up by a fortune hunter," mumbled an elderly lady of the old maid type.

"Lucky dog," said Major Gleg, "he has played his cards well; what a fool old Mapleton must be!"

"Curse him," muttered Sheldon between his teeth, "to think that he can walk into that house and hang up his hat, without another thought but how to spend her money."

"I wonder whether Mr. Claridge really loves her," simpered Miss Terry, who had been to boarding school in London for a year and had read two or three novels.

Fortunately these remarks never reached those they affected, and with the exception of Claridge, who would most undoubtedly have winced under them, it is a question whether they would have excited aught but a laugh. Certainly the old Lieutenant had acted in a very unusual manner towards the young man, who, in spite of cash deficiences, had presumed to love his daughter. Query: was he justified in so doing? Doubtless Mammon is the god of this world but is his universal worship a proof that it is a righteous one? Can even the most covetous or ambitious of worldly pelf say, in all candour to themselves, "Money is above worth, dollars above mind." Those who are not possessed of it

may be excused for valuing it highly, for it is a necessary evil, and existence cannot be borne without it, but surely for those who roll in affluence it may be permitted to look beyond the golden circle of their possessions, and recognize with a generous heart the natural nobility of some of earth's poorer children without society crying out "they are taken in," "they are imposed upon!" Let us honour the old settler, who, in his simplicity of heart and purity of motives, gave his pearl of price, all dowered with a goodly heritage of gold and land, to a faithful, noble youth, an adventurer, indeed, who had adventured his life's fondest hopes in a bark that could never founder; for it was built on high principles, rigged with purity and at the helm sat perfect love.

ORIGIN AND CHARACTER OF THE EARLY TRADE CONTESTS BETWEEN CANADA AND NEW YORK—THE ST. LAWRENCE *vs.* THE HUDSON.

BY J. GEORGE HODGINS, LL.B., F.R.G.S.

To non-commercial men, and other on-lookers, who have silently watched the ebb and flow of trade to the sea-board, by way of the St. Lawrence, it may be interesting to glance back nearly two centuries and recall the circumstances under which the early contest, in favour of trade between Canada and Europe *viâ* the St. Lawrence, began.

That the river St. Lawrence is the great natural outlet to the commercial trade of the vast country lying in the interior, and along both sides of the Canadian Lakes, is an obvious fact which requires no demonstration to prove it. It is self-evident. In later times, the artificial channels of the Erie Canal and the New York Central and Erie Railroads, have proved formidable rivals to the natural route of the St. Lawrence, which, even the additional aids of the St. Lawrence canals and Grand Trunk railway, have not yet been able wholly to overcome. But in early times, there were no such rivals, and the contest for supremacy then partook more of a tribal and warlike, rather than of a geographical or commercial character.

The great river systems of this continent are not only vast in their proportions, but are also marked by great physical distinctness. When we speak of the Mississippi and the St. Lawrence, we at once associate with

the name of the one, the sunshine and perennial bloom of the South, and with the other, the periodical return of the silence and snow of the northern winter. Yet, they take their rise comparatively near to each other, in the same water shed, if not in the very same hilly ranges.

By a singular coincidence, the discovery of both these great rivers was due to the early French explorers of Canada, who, with sagacious foresight, sought at Quebec and New Orleans, to lay the foundation of future supremacy over the waters of each of these great arteries of commerce. Perhaps no chapter of the early history of Canada is so full of heroic incidents and daring exploit, as well as of persistent efforts to accomplish a great object, as that relating to French Canadian explorations on this continent. Soon after the settlement of the infant colony at Quebec took place, this spirit of enterprise developed itself. Nor was it satisfied until the Saguenay, Richelieu, St. Maurice, St. Lawrence, Ottawa, and French rivers, and the St. John, Champlain, Ontario, Erie, Ste. Claire, Huron, Nipissing, and Superior lakes were successively traversed and opened up, for future traffic and enterprise. Even the then mysterious Mississippi was explored for many miles down its course, and subsequently to its mouth.

It cannot be said that this extraordinary activity in explorations was the result of a romantic zeal. The prosaic principle of gain, no less than the higher one of Christian benevolence, stimulated most of these efforts. The early projectors of colonization in this country, were made up of two great parties—those who looked upon Canada as a great field of Missionary labour, and those who looked upon it merely as a vast mine, out of which untold wealth might be obtained, with very little effort. The trading merchants of Rouen and Rochelle, as well as other royal chartered associations, pursued their plans in the spirit of this latter class and in antagonism to that of the former. By their narrow and exclusive policy they showed how lightly they valued the religious interests or material prosperity of the colony, as compared with its capability, in a wilderness state, to furnish so many thousand skins of wild animals every year. So completely was the very commercial existence of Canada bound up with each of these successive trading companies, that at one time the inhabitants could neither import articles from France, for themselves, or for trade with the Indians, without permission, nor purchase imported articles, except at the Company's stores, and at a fixed tariff of high prices. Even the royal Intendant himself, (M. Talon) had, in 1665, to implore the interposition of the French monarch, to prevent the colony from going to ruin under such a perniciously repressive system. The representations of the Intendant were listened to; and to the colonists was given "freedom of trade with the aborigines and with the mother country." M.

Garneau, in his *Histoire du Canada*,* thus refers to the deplorable state of the Colony, on the relaxation of the restrictive commercial *régime* to which it had been so long subjected. He says: "The commercial freedom thus accorded was really urgently needed, as every interest of the Colony had fallen into decay. The Sovereign Council (at Quebec) had felt constrained to multiply its restrictive regulations, to pacify certain sections of trades, and to foster special interests to the injury of others; insomuch that the collective industry of the Colony has been reduced to a state of bondage. Thus, for example, the Council tried to lower the monopolist prices (become exorbitant indeed) of the Company's merchandise, by issuing a tariff with lower rates, fixed by law. As a natural consequence, none of the commodities so depreciated by purblind authority, being brought to market at all, were to be bought at any price. Such a state of things, which, though it did not last long, went nigh to effect the perdition of the colony, ceased at once as soon as trade with the Savages and France was declared free."

Notwithstanding these restrictions, the staple traffic of the country was, in order to comply with the demands and expectations of the stockholders at home, vigourously prosecuted. In 1665, 550,000 francs worth of furs alone was shipped to France. Of course, every effort was made, and every expedient was resorted to, in order to obtain these furs from the Indians. The disputes and rivalry excited among the various tribes, were so strong and violent, that the general policy of the government of the day was often subordinated to the necessity of allaying or suppressing these internal disputes and disagreements.

During all this time, a powerful rival, like the youthful Hercules, was silently gaining strength and growing into prominence on the southern Atlantic seaboard. The English, having dispossessed the Dutch at Manhattan (New York) in 1663, and, being less phlegmatic than their predecessors, soon developed the peculiar energy and commercial activity of their race. Enjoying perfect liberty of internal trade, they gradually extended their forts and trading posts far into the interior. In doing so they were peculiarly fortunate in securing the active friendship of most of the celebrated Iroquois Indian tribes or cantons, whose hostility to the French and their Huron allies was both fierce and unrelenting. Nor was it without a sufficient cause that the Iroquois cherished this hostility. The first time they ever met was signalized by an unprovoked and murderous attack upon them by the French,—who had become the allies of their enemies, the Hurons,—and this was shortly afterwards followed up by another and still more decisive blow. With a singular want of sagacity, Champlain had, on his arrival in Canada, allied himself with the

* Bell's Translation, Vol. I., p. 220; Montreal, John Lovell

nearest Indian tribes. Without inquiring into the character or resources of the enemies of these tribes, he espoused their quarrels; and in the first few unequal encounters with the dreaded Iroquois, he gained an easy victory, by means of his destructive European weapons. Fearfully indeed were these unprovoked quarrels avenged. The injuries then inflicted were never forgiven. For more than a hundred years the fierce war whoop of the unappeased Iroquois scarcely ever ceased its echo among one or other of the French settlements,—which, in time, had stretched themselves from the lower valley of the St. Lawrence to the upper valley of the Ohio.

It is true that other causes tended to foster this vindictive feeling against the French on the part of the Iroquois; and the English colonists in New York did not fail to turn it to good account in their schemes of traffic. Having soon exhausted the supply of beaver within their own cantons or territories, the Iroquois were unable, without encroaching upon the beaver preserves of their neighbours to furnish a sufficient number of skins to satisfy their own love of gain or the demands of the English. As these preserves lay within the territory of their hereditary enemy, the Iroquois felt little compunction in invading them themselves and even in compelling the Indian allies of the French living there to furnish them with beaver to be sent forward to the English traders. This, in many cases, they were not loath to do after a little while, especially as the price paid by the Anglo-Iroquois trader for the beaver skin was higher than that paid by the French, while the articles supplied by the English in barter were cheaper. This was the case in 1670,—shortly after the Dutch ceased to hold possession of New York; and the fact was afterwards confirmed by Frontenac, in a letter addressed to Louis XIV. He says: "I consider it my duty not to conceal from you that the English rate the beaver carried to Orange (Albany) and elsewhere one-third higher than it is rated at the office of your Majesty's revenue; *(Ferme;)* and that they pay ordinarily in dollars, without making any of the distinctions customary here (at Quebec); and when merchandise is preferred, they furnish it at a lower rate, by half, than our merchants do."

In order to show exactly what was the difference of prices in the Indian trade at Montreal and Albany, in 1689, we give the following table:

The Indian pays for	*At Albany*	*At Montreal*
8 lbs. of powder.....	*one* beaver	*four* beavers.
A gun	*two* beavers	*five* beavers.
40 lbs. of lead	*one* beaver	*three* beavers.
A red cloth blanket....	*one* beaver	*two* beavers.
A white blanket.....	*one* beaver	*two* beavers.
4 shirts	*one* beaver	*two* beavers.
6 pairs of stockings....	*one* beaver	*two* beavers.

As might easily be supposed, a rival tariff of prices so favourable to the Indian, the half-breed, and the *coureurs de bois*, or white trappers, as well as to the increase of trade at Albany at the expense of Montreal, would need little argument to commend itself. Thus it proved; and in proportion as it was known did it lead to embarrassment and hostility on the part of the French authorities against the English traders. Neither friendly alliance nor national pride was proof against it. The Huron and Ottawa Indian allies of the French, secretly leagued themselves with the Iroquois to supply beaver to the traders at Albany; while the licensed French *coureurs de bois*, and even some of the highest French officials, were found either active agents of, or silent partners in, this forbidden traffic. In November, 1679, Duchesneau, the royal Intendant, thus writes on this subject to the minister of Louis XIV. at Paris: "The *coureurs du bois* . . . carry their peltries to the English, and endeavour to drive the Indian trade thither. Du Lut, the leader of the refractory, and who has ever been the Governor's* correspondent . . . shares whatever profits he makes with him and Sieur Barrois, his secretary, who has a canoe. Among his . . . the Governor takes the precaution to pass his beaver in the name of merchants in his interest; and if Du Lut experiences any difficulty in bringing them along, he will take advantage of the agency of foreigners." As an evidence of the value even then of the right kind of a *douceur* in this traffic, we quote the following curious passage from the same letter: "The Indians having included in their presents to the Governor some old moose hides and a belt of wampum, which they appreciate highly, but which the French do not value as much as they do beaver, he caused his interpreter to tell them, according to their mode of speaking, *that such did not open his* ears, and that he did not hear them *except when they spoke with beaver!*"

In the contests for the fur traffic between the traders of Montreal and and Albany the latter had decidedly the advantage over the former in the more liberal system of trade established by the government. In Canada the fur and peltry traffic was chiefly in the hands of some chartered company or association, or in those of the government. No one was allowed to trade with the Indians for furs except by special license. Various other restrictions and charges were also imposed, in addition to the payment of a heavy royalty on each beaver or other skin brought to market. The license system led to great abuse; and the payment of the royalty and other exactions to farmers of the revenue, &c., were very onerous; besides, a high tariff of prices was generally fixed for articles supplied to the Indians and traders. In New York, the fur trade stood upon an entirely different footing. There every one was at liberty to embark in the trade at his pleasure, without restriction or without the

* Perrot, Governor of Montreal.

payment of any fee for the right of doing so. He could also sell articles in exchange for furs at such prices as he pleased, or could obtain for them. The revenue tax was limited to the payment of ninepence for every beaver skin exported; other skins were rated according to the beaver standard. It is easy to see under which system—that in force in Canada, or that followed in New York—the fur trade would flourish. It will be easily seen, too, how strenuous the efforts of the French traders would require to be in order to resist a rivalry so potent and so active. The Indians were not slow to perceive the nature of this rivalry; and they did all in their power, by sometimes supplying both parties and by fostering mutual dissension, to promote their own influence and to prevent an union of interests between the French and English traders, which would inevitably result in their destruction or subjugation.

As the English neared the St. Lawrence and the borders of the great lakes, the French sought, by extending their trading posts towards the North West, to maintain the balance of trade in their favour. Exploring parties were despatched far into the interior; and distant tribes were visited, and trading posts established among them. In this way many new discoveries were made far to the west and north. Nor did these efforts end in mere discovery. A chain of posts or trading forts was established, which not only gave the French an immense political influence over the aboriginal tribes scattered throughout the vast area, but also secured to them a territorial jurisdiction, for the very purpose of the peltry traffic which was then of the utmost importance to them. In this way the great rival entrepôts of European trade at Quebec or Tadousac, and at Albany or New York, were abundantly supplied; and for a time both enjoyed great prosperity.

Both the French and the English colonists were anxious to promote as large an export trade as possible between themselves and their respective countries. New York and Quebec were therefore, as long ago as 1670, in direct antagonism as to their commercial interests. The French sought to obtain from the neighbouring tribes, and from the interior as large a supply of peltry or furs as possible. The English were equally on the alert; and they had this advantage, that they were perfectly untrammelled in their trading operations with the Indians. They sold their goods cheaper than the French, and, in consequence of a brisker trade, were enabled to pay more for the peltries in exchange. As the trading influence of each party came more directly into contact, the prices of furs increased up to the English standard, while the desire to obtain them as the basis of trade became the stronger with each. Not only did the Iroquois continue to furnish large supplies to their allies, the English, but by their skill and prowess they were successful in inducing tribes far in the interior, and within the territory of

the French, to furnish them with beaver and other skins, so that they might resell them to the English. M. Talon, the Intendant, in a memorial to the King, dated November, 1670, estimates that "the English at Boston, and the Dutch at Manatte, (New York) and of Orange, (Albany) who are subject to them, attract, by means of the Iroquois and other Indian tribes, over 1,200,000 livres of beaver, almost all dry and in the best condition, part of which they use in trade with the Muscovites. All this beaver is trapped in countries subject to the King (Louis XIV.)" It was in this active or positive form of Anglo-Iroquois interference that the rivalry between the traders at Quebec and New York first commenced. So audacious an interference on the part of the Iroquois with the territorial trading rights of the French Colonists could not be permitted to pass unpunished. The French Governor of the time (M. de Courcelles) at once determined to inflict a signal blow upon the power of the insolent Iroquois. He marched straight into the very heart of their country, and for a time was highly successful in his efforts to compel them to respect his authority. But these and subsequent repressive efforts against a determined and interested enemy had but a temporary effect. The English took part with their allies, and silently and skilfully followed up every advantage of position and influence gained by the Iroquois.

At length the French and English came face to face in this conflict of jurisdiction of territory and of traffic, in 1686. In that year, Col. Thomas Dongan, Governor of New York, gave a pass to Col. Patrick Macgregorie, in command of a small party, to trade with the Ottawa Indians at Michilimackinac. Up to that time, Col. Dongan says, "Noe man of our government ever went beyond the Sinecaes [Senecas] Country"—near Niagara. Macgregorie was taken prisoner and sent to Montreal. Angry indeed was the correspondence which followed between the Governor of the aggrieved French colonists in Canada and the Governor of the aggressive English colonists of New York. The one haughtily denounced, while the other explained and temporised in diplomatic phrase. Nevertheless, the rival traffic went on; and many a bloody blow was struck by the Indian allies of either colony for the possession of some rich cargo of furs on its way to the rival trading-posts.

The French, being first in the field, could not brook the loss of prestige which the successful rivalry of the English traders on the borders of the great lakes or on the rivers in the Ottawa or St. Lawrence valleys produced. With sagacious foresight the French had erected palisaded enclosures around their trading-posts at Tadousac (Quebec), the River Richelieu, Trois Rivières, Montreal, and Cataroucy (Kingston). Subsequently, and as a counterpoise to the encroachments of the English, they erected palisaded forts at Niagara, Detroit, Sault Ste. Marie, Michili-

mackinac and Toronto. Thus, after Governor Dongan had sent Colonel Macgregorie to trade at Mackinac, the Canadian Viceroy, M. Denonville, wrote to the French minister, to authorize the erection of a fort at Niagara, which, he said, "would secure to us the communication between the two lakes, and would render us masters of the road the Senecas take in going to hunt for furs."—"This post would absolutely close the entire road to the Outaonacs against the English, and would prevent the Iroquois carrying their peltries to the latter." The post was accordingly erected in 1687, and named "Fort Margaret." Finding that this did not sufficiently accomplish his purpose, M. de Denonville shortly afterwards writes to the minister to say: "The letters I wrote to Sieurs du Lhu and de la Durantaye (of which I send you copies) will inform you of my orders to them to fortify the two leading passes to Michilimaquina. Sieur du Lhu is at that of the *Detroit* of Lake Erie, and Sieur de la Durantaye at that of the portage of *Toronto*. These two posts will block the passage against the English, if they undertake to go again to Michilimaquina." Nor on their side were the English idle. Creeping gradually up the Hudson River, they erected armed trading posts at Albany and up the Mohawk valley, until at length they boldly threw up a fort at Oswego,—mid-way between Frontenac and Niagara.

Although the English governors of New York were to a great extent held responsible for the conduct of the Iroquois towards the French, it is clear that they were not only unable in many cases to restrain them, but the English were themselves often equally the object of attack or dislike. Thus M. de Denonville, in a memoir on the State of Canada, dated 12th Nov., 1685, speaking of the Iroquois, says: "Even the English in Virginia have suffered, and still daily suffer from them;" and in his memoir on the same subject, dated 8th October 1686, he adds: "The Iroquois have no other design than to destroy all our allies, one after another, in order afterwards to annihilate us; and in that consists all the policy of M. Dongan and his traders, who have no other object than to post themselves at Niagara, to block us; but until now they have not dared to touch that string with the Iroquois, who dread and hate (the) domination (of the English) *more than ours*, loving them not, in truth, except on account of their cheap bargains." As to the character and policy of the Iroquois towards the French and their allies, we find M. de la Barre thus speaking of them, in a letter to the Minister of Louis XIV., dated 4th of November, 1683. He says: "That nation (the Iroquois) the strongest and shrewdest in all North America, having, twenty years ago, subjugated all their neighbours, turned their attention to the trade with the English of New York, Orange, (Albany,) and Manette (New York); and *finding this much more profitable than ours*, because the Beaver (exempt from the duty of

one fourth which he pays here, (Quebec) is much higher there than with us, they sought every means to increase it; and as they perceived that they could not succed better in that than by destroying the Outaouax, (Ottawa Indians,) for thirty years our allies, and who alone supply us with *two thirds* of the Beaver that is sent to France, they, * * * after having excited all the five cabins, (or cantons) declared war against these people, doubting not but they would easily master them. This done, they would absolutely intersect the path to the South, by which our French go trading with licenses, and prevent the farther Indians bringing any beaver to Montreal, and having mastered the post of Missilimakinac, establish a new one there of themselves alone and the English."

The determination of the Iroquois to extirpate the Ottawas so as to control their beaver traffic and thus "intersect the trading path" of the French "to the South," was no doubt due to the refusal of Count de Frontenac to permit the Ottawas to enter into a treaty for trade with the Iroquois some years before. By this treaty the Iroquois "offered to supply the Outaoüaes with all the goods they required, and the latter were to carry to them generally all their peltries, and the exchange was to take place on Lake Ontario." Frontenac, in his *Journal of a Voyage to Lake Ontario in* 1673, remarks: "The only way to traverse and upset this negociation was, as had been frequently before proposed, to establish a post on the same lake, which would prevent the communication of the nations of the South with those of the North, and force the latter to continue to bring us not only the peltries that usually come by the river of the Long Sault, but even those our neighbours (the English) profited by, through the facility of being able to cross the lake without any impediment."

Of these Ottawa Indians and their usefulness to the French the royal Intendant, M. Duchesneau, thus speaks in his memoir to the French government, dated 13th Oct., 1681. He says: "The Ottawa Indians, who are divided into several tribes, and are nearest to us, because through them we obtain beaver; and although they, for the most part, do not hunt, and have but a small portion of the peltry in their country, they go in search of it to the most distant places, and exchange for it our merchandise, which they procure at Montreal. * * * They get their peltries, in the North, from the people of the interior, * * and in the South from the (Sacs, Foxes, Pottawotamies, &c.)

Notwithstanding all the efforts made by the French to restrict the traffic in beaver skins and peltry within their own territories to the St. Lawrence route, they were in the end powerless to accomplish it. They at one time interdicted trade with the Anglo-Iroquois;—then they made

them presents;—again they threatened them—made war upon them—invaded and desolated their villages;—they made treaties with them, and urged and intreated the Dutch and English to restrain them, and even sought to make the latter responsible for their acts—but all in vain. As the tide silently rolled in upon them, and the English, who were always heralded by the Iroquois, advanced northwards and westwards towards the St. Lawrence and great lakes, the French, still gallantly holding their old forts in their possession, also pressed forward before them and occupied new ground. With singular sagacity, too, they selected the best spots, whether for defence or offence, or for interrupting trade. To this day the sites of their trading forts at the narrows or straits of Kingston, Niagara, Detroit and Mackinac, are considered strategic points of great value and importance.

Having exhausted these means of preserving the peltry trade of the great St. Lawrence valley to themselves, two other schemes were successively proposed. The one—that of war against the English Colonists and their Indian allies—had been tried, though in rather a desultory manner. It was therefore thought that a war on a scale commensurate with the object to be sought against—that of conquest—should be undertaken. But apathy at home and want of ability in Canada, prevented this scheme from being fully carried out. One other plan remained—in case all attempts to detach the Iroquois from their English alliance should fail—and that was the possession by purchase of all the English strongholds and trading posts in New York. This accomplished, the Iroquois could be inevitably crushed, then destroyed, and the whole Sovereignity of the rival colonies transferred to the French monarch. This scheme was warmly advocated by the royal Intendant, Duchesneau, in 1681; by the Viceroy Denonville, in 1685; and by the Viceroy as well as De Callières, governor of Montreal in 1687; but it was not considered feasible by Louis XIV. The idea of conquest was, after a while, revived with great energy, by DeCallières, as the only means of saving Canada. The King at last consented; appointed DeCallières prospectively first French governor of New York, and sent minute instructions to Frontenac, in 1689, for conducting the expedition. The project was, however, abandoned, in 1690, by the King's express orders, but was again revived in 1701, with no better effect—D'Iberville, the naval officer appointed to conduct the expedition, having reported upon it as "visionary."

From this time until the Treaty of Utrecht, in 1714, a continued system of warfare was kept up, chiefly between the rival maritime colonies. After that the French peltry traffic declined; and events of graver moment occupied the attention of statesmen and politicians both in Europe and America. These events eventually culminated in that mo-

mentous one which led to the separation of Canada from France, in 1759, and for ever put an end to the struggle between the French and English colonies for supremacy among rival Indian tribes, and for the monopoly of the fur trade. Little did those, however, think who were then the victors, that within twenty years their own proud flag would be ignominiously lowered at the seat of their power in New York. Little too did they know then that hereafter they would be compelled to maintain at Quebec the struggle in favour of the St. Lawrence route to Europe, which the vanquished French colonists had so valiantly done against them during the preceding one hundred years.

We hope to devote a future paper to the discoveries and trade of the rival colonists in the Hudson's Bay Territories.

THE SALMON QUESTION IN CANADA.

The title of this article will, we fear, be sufficient to cause many of our readers to turn from it with indifference, as if it related solely to Lower Canada, or involved merely matter of amusement for the wealthy or of recreation for the sportsman, but such is not the case, the whole population of the province, especially of *Upper Canada*, are, if they only knew it, deeply interested in it. So strongly was the value of the Salmon as an article of food and an article of commerce felt in England at the time of the passing of Magna Charta, that that title deed of her liberties includes a stipulation for "the free run of Salmon" in her Rivers and Estuaries, which present practice unfortunately denies to them in Canada.

The Salmon is a production of nature adapted for man's nutriment which is self-sown, self-grown, self-reared and self-ripened, without any demand for space, care, seed or investment of human pains or money. Salmon flock of their own accord to our Rivers and there deposit their spawn. The spawn is quickened into life and myriads of little fish soon swarm in the stream. At the beginning of May, and during the remainder of that month and June these young fish swim down the rivers to the open sea. There, in their natural feeding grounds, they fatten so rapidly that they increase in weight, five, six, seven and eight pounds in as many weeks. This has been most satisfactorily proved at the artificial breeding establishment at Stormontfield, on the Tay, where, the smolt of three ounces weight, unmistakably marked, and

liberated in March and April, has been recaptured in June and July of the same year, a grilse of five or six pounds weight. But the singular point of the case is that after fattening himself in this manner, he will, of his own free choice, come back again to be killed. The same instinct which took him off to sea brings him back again to the River. He will infallibly return from his pasture to his nursery, and there offer himself for capture without any cost for keep, for attendance or for transport. He will make flesh more rapidly, than any cake fed ox or any milk fed hog, and do it all for nothing. The only thing he asks is not to be interrupted—not to be stopped when he comes to our Rivers to breed—not to be turned back when he goes away to grow. All the rest he will do for himself, and will add pound after pound to his own substance for our benefit and pleasure if we will but leave him alone to do it.

But it is a strange instance of mortal perverseness that the only crop which costs us nothing to raise, should have been already all but extinguished in the upper portion of the province, and is upon the very verge of extinction in a great part of the lower. No fish, flesh or fowl ought to be so cheap or plentiful in Canada as Salmon, whereas it has hitherto been the dearest of all, without a shadow of reason or necessity. We set impassable barriers across our streams in the shape of inaccessible milldams to keep them out—yet they exhaust themselves and die in trying to overleap the obstacles.

The Law—22nd Victoria Chap. 62, Sec. 27—enacts that the owners of such dams or slides shall maintain in each of them, "a fishway of such form and dimensions as shall be determined by the Superintendent of Fisheries, under a penalty of four dollars for each day on which he shall fail so to do after two months notice by the Superintendent." Yet it is notorious that hundreds of mill-dams, without fishways, are still in existence in Canada East and Canada West, and no one appears to be aware that any serious effort has been made in either section of the Province to put the Law in force.

Thus we persist in destroying our own harvest in defiance of the law, whereas if we withheld our hands there would be hardly any limit to the produce. Never did tariff take so grotesque an expression as this. Salmon endeavour to import themselves, free of charge, for our consumption, and we put a prohibitory duty on this bounty of nature.

This really involves public as well as private interests—the people at large should not be damaged while millers are suffered unpunished to commit this wholesale destruction of nutritious food. It is only destruction of this kind and spearing on the spawning beds, which requires to be prohibited. We are so fortunately situated, that the salmon come by force of instinct to our rivers, without allurement of any kind. They want only a free passage up and a free passage down;

or at least so far free that they may increase, multiply, and go on without material hindrance.

And let it not be imagined that the western section of the Province is unconcerned in this matter. Thirty years ago, almost every stream tributary to the St. Lawrence from Niagara to Labrador on the north side, and to Gaspé on the south, abounded with salmon; while at present, with the exception of a few in the Jacques Cartier and the St. Francis, there is not one to be found in any river between the Falls of Niagara and the City of Quebec:—all have fallen victims to the impassable mill-dams, and there can be no doubt that were they removed, or the fishways which the law prescribes attached to them, they would again abound with salmon, and proprietors on their banks would find it to be their interest to aid the officers of Government in protecting the spawning fish.

Many persons in Toronto know that the true salmon are still taken annually at the mouths of the Credit, the Humber, and at Bond Head, during the month of May, which is earlier than they are usually killed below Quebec, proclaiming, as it were, that if the streams were open to them, they would again ascend them, stock them with their offspring, and provide for the people of Upper Canada an abundant supply of the most valuable of fresh-water fish. But this will never be effected until the Superintendents of Fisheries are taught fearlessly to prosecute every man who maintains on any river any effectual obstruction to their ascent of it.

Having said so much on this branch of the subject, let us make a few brief observations on the Rivers—east of Quebec—which still abound with salmon, and on the mode by which these rivers might be made to render an annually increasing revenue to the Province.

The number of these streams—according to the official advertisement of the Crown Lands office—which is not accurate—is *sixty-seven*. But suppose the number to be fifty, and that they hold some proportion in the numbers of their fish, and their consequent commercial value to the Rivers in Europe—what ought to be the revenue derived from them?

The English newspapers state that the Duke of Richmond recently refused an annual rent of £15,000 sterling—for thirteen years—for the fishery of the River Spey in Scotland, now there are the very best reasons for believing that amongst our Canadian Rivers there are many as productive as the Spey, and that the only obstacle to the Government's deriving a large income from them, is the difficulty and uncertainty of reaching them and returning from them by sailing vessels,—while there are hundreds of noblemen, gentlemen, professional men, and merchants in the British Islands who pay high rents for every river there and in Norway where a fish of a pound weight is to be caught, and many

of the latter classes in Canada and the United States, who would gladly pay large annual rents for our Canadian rivers, if they could only enjoy the recreation of fishing them for a brief period, and be certain of returning to their occupations at a fixed time.

If the Commissioner of Crown Lands, and the Commissioner of Public Works would co-operate—the former by advertising during the Winter in the English, American and Canadian Papers—and the latter by causing the Government Steamers to make a trip to and from the Salmon Rivers every fortnight during the months of June and July, there can be no doubt, but that the Government would immediately derive an increased revenue from these Rivers—the resources of the country be considerably developed, and its valuable fisheries better appreciated. It is not intended to suggest that the Government Steamers should carry anyone on these trips, free of cost, on the contrary, a remunerative tariff should be adopted, and the vessels should, at the same time, convey oil, stores, &c., to the various light houses and depots on the coast, which would be an economical course, compared with their present system. For some reason, which it is not easy to fathom, the masters or managers of the Government Steamers have steadily set their faces against calling at the Salmon Rivers. On two occasions, Sir E. Head left Quebec in the Napoleon, with the intention of calling at the Godbout, but the master flatly refused to stop there, spoke of danger and responsibility, and carried Sir Edmund on to Mingan in spite of him. The absurdity and futility of such pleas have been fully demonstrated by the fact that the Steamer "Arabian," chartered by private individuals, has stopped, and loaded and unloaded, and embarked and disembarked her passengers, at the Godbout and the Moisie, for the last two years, without the slightest danger, difficulty or inconvenience.

If the course advocated should be adopted, advertisements should be sent abroad with no niggard hand; and should be soon set forth, in order that the information they will contain may reach Europe, the United States and Canada, in time to enable speculators, fishermen, and tourists to make their arrangements for the ensuing Spring and Summer.

With regard to the efficiency of the Fishery Act, as far as salmon are concerned, there can be no doubt but that that Act, with the orders in council supplementary to it, leave nothing to be desired in the way of legislation, if they were only honestly and earnestly carried out by the Superintendents of fisheries, which hitherto, has not been done. Progressive improvement has been very evident in all the Rivers which have been properly protected, in all of which great multitudes of young fish, have, for the last three years, been observed descending towards the sea, thus affording bright prospects of abundance of salmon for the future.

The following suggestions for the further improvement of the salmon fisheries, in addition to those already mentioned, are, we think, worthy of serious consideration.

1. That the present system of leasing them should receive the consideration of the Government, with a view to ascertaining whether it would not be beneficial to the Rivers, to the lessees, and to the Government that they should be let for longer periods than at present.

2. That the removal of obstacles—the application of fishways to mill-dams, and the artificial propagation of salmon, should be immediately proceeded with in every River in Upper and Lower Canada, where salmon formerly abounded. The two former should be carried out by the Superintendents of fisheries, for the latter, a person well acquainted with the process, should be imported from France or Ireland. The ova of the salmon should be procured in the Autumn, in the Rivers on the North shore of the St. Lawrence below Quebec, carefully preserved during the winter, and largely sown—before their development, in the Spring, in the streams west of that city.

3. The subject of bag or stake nets fixed in the sea—*i. e.*, the River St. Lawrence—will require the consideration of the Government—whether such nets drive the fish from the coasts, and are consequently more injurious than nets placed within the Rivers, is a question which is at present agitating all the British Islands, and upon which such evidence has been adduced before the British Parliament that no doubt can exist upon the subject. But in no part of the world have such flagrant abuses been committed by the use of these iniquitous machines as have been perpetrated in Canada.

It is the fashion, however, amongst the maintainers and proprietors of the stake nets and brush weirs in the St. Lawrence to accuse their opponents of being merely selfish fly fishers, who, for the promotion of their sport, would willingly sacrifice the wealth which the Province derives from these engines, and deprive its population of a valuable and luxurious article of food.

If this question be examined ever so briefly it will be found, that these maintainers and proprietors are in reality the selfish parties, who, for the gain they derive from their ruinous machines, have already deprived more than one-half of this Province of that noble fish, the Salmon, and do not hesitate to drive from our shores the Whale, the Halibut, the Cod, the Mackerel and the Bar, by depriving them of the food which instinct teaches them to seek in our magnificent estuary.

Turn for a moment to page 172 of the Report of the Commissioner of Crown Lands for 1862, lately laid before Parliament, and there we find the following words from the pen of the Superintendent of Fisheries in *Upper Canada*. "*The system of extending watling fences in the St.*

Lawrence has, in a great measure, destroyed the salmon fishery of Upper Canada."

What this gentleman calls "watling fences," are better known in Lower Canada as Brush weirs, which are the most destructive description of stake net, for they are *always* fishing, by day and by night, on Sunday and holyday, they kill every sized fish, from the salmon of 40lbs. to the salmon fry of two inches long, and these they take while the tide is rising and while it is falling, in fact there is no cessation to their evil doings, they take the sardine, the capelin, the herring, the smelt and the salmon smolts, in *hundreds of millions*, and so far diminish the food which the cod, the mackarel, the bar, the halibut, and the whale seek on our shores.

These destructive engines have been abolished by legislative enactment in England and Scotland, and a Bill for their removal from the Irish rivers has been read a second time in the present session of the Imperial Parliament, and is probably, by this time, the law of the land.

No protective measures, however stringent, no expense in the artificial propagation of salmon can be of the slightest avail in restoring the lost salmon to the denuded streams westwards of Quebec, while these machines annually destroy the smolts in millions, either to be boiled down into oil or to *manure the fields on the banks of the lower St. Lawrence.* As well might we hope to encourage immigration to our country by placing rocks and snags in the course of our Ocean Steamers, and digging pitfalls in our rail roads.

But here the advocates of the stake nets meet us with the question, "If you abolish stake nets in the St. Lawrence, how will you supply the market with salmon?" The answer is easy—let the lessees of the tributary streams set stake nets if they please—in the Rivers for which they pay rent, then for their own sakes they will not exterminate the breeding fish. Let each lessee kill the fish for which he pays the Government.—Let the highway be open to the salmon, and so give Upper Canada a fair share of that noble fish, but restrain those who pay nothing, or merely a nominal sum for a license to fish, from destroying the most valuable fisheries of the Province.

These traps for the destruction of the salmon are a comparatively recent Scotch invention, the introduction of which has caused endless litigation, much bloodshed, and a sad diminution in the numbers and size of the fish in the British Islands. Can it then be wise or prudent to continue their use in Canadian waters? Is it right that Upper Canada should submit to be deprived of the finest of all fish for the benefit of their grasping owners? None of the difficulties which beset the British Government in getting rid of them beset us in Canada. In the former, the conflicting claims of landholders on the estuaries,

on the banks of the lower portions of the rivers, and in the upper and breeding parts, have rendered it nearly impossible to do justice to them, or, what is still more difficult, to satisfy all the claimants. But in Lower Canada, all the estuaries and all the salmon rivers are the undisputed property of the Crown, and Her Majesty's Government can have no difficulty in making proper regulations for fishing them. To legalize by act of parliament engines, which placed in the paths of the salmon capture undue quantities, and in greater proportion than they can be produced, is not only an act of cruelty but of sheer stupidity; and when these are fixed in the tidal portion of a river, they become nuisances and obstructions to navigation.

Messrs. Ffennell and Barry, the British Commissioners of Fisheries, have, in their last six reports, uniformly and utterly condemned the use of these destructive nets. But our Canadian legislators appear to close their ears to the voice of experience, and to adopt what the British legislature is occupied in repudiating.

4thly. Each Overseer of Fisheries, being a Justice of the Peace, should be authorised and empowered, in cases of necessity, to swear in special constables, and to charge the Department for their expenses while he employed them in preventing encroachments or in apprehending offenders, which expenses might be eventually charged upon the lessees of the Rivers where the offences were committed. Powerful schooners, British and American, with numerous crews, many of them of reckless character—are in the habit, during the summer, under various pretences, of anchoring in the mouths of the Rivers, and, by illegal and unauthorised fishing, by inviting the peaceful habitans and Indians to intemperance and infraction of the Law, and by throwing the offal of the fish they catch into the streams, doing an immense amount of mischief. It frequently happens that the crews of two or more such schooners unite in these lawless depredations, and it must be self evident that an overseer of Fisheries, single handed, must be powerless in their presence, and that they can have no difficulty in escaping where they have plundered the lessees, and, as in some cases—outraged the inhabitants.

In conclusion we would express an earnest hope that the present Session of the Provincial Parliament will not pass away, without due attention having been given to this matter by the Commissioner of Crown Lands, and the passing of a Bill to remedy the evils complained of, which will have the effect of inducing mercantile men and capitalists to embark in our fisheries, thus developing the resources and increasing the revenue of our country.

REVIEWS.

A History of the Intellectual Development of Europe. By John Wm. Draper, M.D., LL.D., Professor of Chemistry and Physiology in the University of New York, Author of a "Treatise on Human Physiology," &c., &c. New York: Harper & Brothers. Toronto: Rollo & Adam.

The special object of the work, of which the title is given above, is to demonstrate these two propositions, to wit: first, "that social advancement is as completely under the control of natural laws as is bodily growth;" and secondly, that "the life of an individual is a miniature of the life of a nation." It is presented by its author as the completion of a work previously published by him on Human Physiology, in which man was treated of as an individual, and contains the evidence of a physiological argument respecting the mental progress of Europe, of which he read an abstract at the meeting of the British Association for the Advancement of Science, held at Oxford, in 1860. The fruit of many years thinking it is now (though substantially finished so long ago as 1858) submitted, we are told, "with many misgivings as to its execution to the indulgent consideration of the public." To such consideration Dr. Draper is certainly entitled, both on the ground of the difficulty of the subject and the ability with which he has acquitted himself.

The work possesses, it will be observed, a two fold character, that, namely, of a history, and a scientific explanation of the history—two things so distinct as to leave the acceptance of the one quite compatible with the rejection of the other, should the arguments adduced in its favour be deemed insufficient.

Of the principle lying at its base, laid down and illustrated in chapter first, that the universe, including the individual and social life of man, is subject to law there can be no reasonable question. It is involved in every notion of a plan on the part of the creator, and established by the correspondences in the results everywhere evolved. The mode, however, in which the law operates and the measure of force exerted by it, in the case especially of man, remain open questions after the recognition of the fact; and they are questions whose importance cannot be over-estimated. In dealing with them all reasonable freedom should be allowed on the one hand, and all reasonable caution observed on the other. Whatever exerts an influence should, as far as practicable, be carefully noted, and each element contributing to the general result be credited with its own share in it. The process will be vitiated, and consequently the reliableness of the conclusions reached be destroyed, if this principle be violated, whether by the ascribing of power to that which exerts none, the denying of it to that which does exert it, or the making of it in any case less or more than it is.

In shaping man's history, whether in his individual or social character, three elements will be found, speaking generally, co-operating, to wit: the constitution given him by his Creator; the circumstances by which he is surrounded; and the power exerted by him through the medium of his will.

These might, perhaps, be reduced to two, by including the last under the first, all that is needful being gained if the *fact* of freedom be granted and the measure of its influence be easily assigned. The former is done without hesitation by our author, who differs in this respect from the late Mr. Buckle, who not merely denied freedom to man, subjecting him without help to the mercy of causes purely physical, but went so far as to argue against the reliability of consciousness for the purpose of depriving us of the evidence of it which every one feels he has in his own breast. Inasmuch, moreover, as everything which exerts a moulding or modifying influence upon us, not even excluding revelation, produces its effect ultimately in harmony with and through means of our nature, if the term organization be made to cover the whole of that (the mental construction and the fact of freedom, as well as what is merely bodily,) there may possibly be no great harm in speaking of it as controlling, no serious error, at all events, though we would regard it as a mode of expression very liable to be misunderstood.

Seen through the medium of physiology history presents, our author holds, a "new aspect to us." We gain, he thinks, by so viewing it, "a more just and thorough appreciation of the thoughts and motives of men in successive ages of the world." This we can accept without difficulty; but the statement that "the equilibrium and movement of humanity are altogether physiological phenomena," appears to us too strong. In this and certain other passages, not very numerous, some modification of the phraseology might be useful in the way of helping to prevent mistake on the part of readers, to whom some of the thoughts, being possibly new to them, may seem startling.

Holding that there is "a progress for races of men as well marked as the progress of one man," and that "the march of individual existence shadows forth the march of race existence, being, indeed, its representative on a little scale," Professor Draper selects the intellectual class as forming the true representative of a community; in other words, he adopts intellectual development as his test or measure for the determination of the progress reached in any given case. Such development manifesting itself in the five forms of Philosophy, Science, Literature, Religion, and Government, he sketches the movement of each of these as exhibited in the history of Greece, which, as the eldest member of the European family, may, he conceives, be taken as a type of the others. As a matter of convenience, he divides the intellectual life of the type thus chosen into arbitrary periods, distinct from though merging into each other, which he designates: 1, the Age of Credulity; 2, the Age of Inquiry; 3, the Age of Faith; 4, the Age of Reason; 5, the Age of Decrepitude;—answering to periods in the individual life specially marked by these characteristics—each of which he passes in review for the purpose of gathering its contents.

From a state of comparative barbarism he traces the progress of Greece, through the gradations named, up to the high point of civilization ultimately attained by her—which qualified her for the place, which she has so wondrously filled, of leader in the march of Mind.

The Greek religion the author shows to have carried in itself the seeds of its own dissolution, involving, as it did, a vast mass of misconception in the regions alike of philosophy and fact. "Two circumstances," he remarks, "of

inevitable occurrence, insured the eventual overthrow of the whole system; they were geographical discovery and the rise of philosophical criticism." For illustration of these, see pages 32–37.

A rapid expansion of the Greek Intellect took place after the First Olympiad —one effect of which is stated to have been that it became "ashamed of the fables it had believed in its infancy. Of the legends, some are allegorized, some are modified, some are repudiated. The great tragedians accept the myths in the aggregate, but decline them in particulars; some of the poets transform or allegorize them; some use them ornamentally as graceful decorations. It is evident that between the educated and the vulgar classes a divergence is taking place, and that the best men of the times see the necessity of either totally abandoning these cherished fictions to the lower orders, or of gradually replacing them with something more suitable." With the poets the philosophers and historians sympathized, imitating at the same time their course.

"The immoralities," remarks Dr. Draper, "imputed to the gods were doubtless calculated to draw the attention of reflecting men, but the essential nature of the pursuit in which the Ionian and Italian schools were engaged bore directly on the doctrine of a providential government of the world. It not only turned into a fiction the time honoured dogma of the omnipresence of the Olympian divinities—it even struck at their very existence by leaving them nothing to do. For those personifications it introduced impersonal nature or the elements. Instead of uniting scientific interpretations to ancient traditions, it modified and modelled the old traditions to suit the apparent requirements of science." Of this the necessary issue was "that the Divinity became excluded from the world he had made, the supernatural merged in the natural agency; Zeus was superseded by the air, Poseidon by the water; and, while some of the philosophers received in silence the popular legends, as was the case with Socrates, or like Plato recognized it as a patriotic duty to accept the public faith, others, like Xenophanes, denounced the whole as an ancient blunder, converted by time into a national imposture. (pp. 35,36.) "The rise of true history brought the same result as the rise of true philosophy."

"In apparent inconsistency with this declining state of belief in the higher classes, the multitude, without concern, indulged in the most surprising superstitions. With them it was an age of relics, of weeping statues, and winking pictures. The tools with which the Trojan horse was made might still be seen at Metapontum, the sceptre of Pelops was still preserved at Chœroneia, the spear of Achilles at Phaselis, the sword of Memnon at Nicomedia; the Tegeates could still show the hide of the Calydonian boar, very many cities boasted their possession of the true palladium from Troy. There were statues of Athene that could brandish spears, paintings that could blush, images that could sweat, and endless shrines and sanctuaries, at which miracle-cures were performed. Into the hole through which the deluge of Deucalion receded the Athenian still poured the customary sacrifice of honey and meal. He would have been an adventurous man who risked any observation as to its inadequate size. And, though the sky had been proved to be space and stars, and not the firm floor of Olympus, he who had occasion to

refer to the flight of the gods from mountain tops into heaven would find it to his advantage to make no astronomical remark. No adverse allusions to the poems of Homer, Arctinus, or Lesches were tolerated ; he who perpetrated the blasphemy of dispersonifying the sun went in peril of death. They would not bear that natural laws should be substituted for Zeus and Poseidon ; whoever was suspected of believing that Helios and Selene were not gods would do well to purge himself to public satisfaction. The people vindicated their superstition in spite of all geographical and physical difficulties, and, far from concerning themselves with those contradictions which had exerted such an influence on the thinking classes, practically asserted the needlessness of any historical evidence." (pp. 37, 38).

The rise of the Roman power by the intercourse it promoted, and the crowding together of gods and goddesses at Rome, which helped by their contact to "bring one another into disrepute and ridicule," accelerated the fall of Paganism, which had its commencement nearly a thousand years before in the opening of the Egyptian ports.

What took place in Greece our author affirms to have taken place "on the great scale" throughout Europe ; and he sees in the wonderfully increased facilities for locomotion now existing, with the other inventions of our age, "the ominous precursors of a vast philosophical revolution."

After a digression, extending over twenty-eight pages—with which chapter third is occupied—on the subject of Hindoo theology and Egyptian civilization, the Greek Ages of Inquiry, Faith, Reason, and Intellectual decrepitude are passed in review, chs. 4-7, and the rise and decline of Physical Speculation and Ethical Philosophy, the rise of Science, and the death of Greek Philosophy detailed—sketches being given of the leading Schools, including notices of their more distinguished teachers and summaries of their doctrines.

Of the mode of treatment, the following extract from the account of the Platonic Philosophy may serve as an example :—

"Some of the illustrations commonly given of Plato's ideal theory may also be instructively used for showing the manner in which his facts are dealt with by the methods of modern science. Thus, Plato would say that there is contained in every acorn the ideal type of an oak, in accordance with which, as soon as suitable circumstances occur, the acorn will develope itself into an oak, and into no other tree. In that act of development of such a seed into its first growth, there are, therefore, two things demanding attention—the intrinsic character of the seed, and the external forces acting upon it. The Platonic doctrine draws such a distinction emphatically ; its essential purpose is to assert the absolute existence and independence of that innate type, and its imperishability. Though it requires the agency of external circumstances for its complete realization, its being is altogether irrespective of them. There are therefore, in such a case, two elements concerned—an internal and an external. A like quality is perceived in many other physiological instances, as in the relationship of mind and matter, thought and sensation. It is the aim of the Platonic Philosophy to magnify the internal at the expense of the external in the case of man, thereby asserting the absolute supremacy of intellect ; this being the particular in which man is distinguished from the brutes and lower organizations, in whom the external relatively predominates.

The development of any such organism, be it plant or animal, is therefore nothing but a manifestation of the Divine idea of Platonism. Many instances of natural history offer striking illustrations, as when that which might have been a branch is developed into a flower, the parts thereof showing a disposition to arrange themselves by fives or by threes. The persistency with which this occurs in organisms of the same species, is, in the Platonic interpretation, a proof that, though individuals may perish, the idea is immortal. How else, in this manner, could the like extricate itself from the unlike; the one deliver itself from, and make itself manifest among the many?" (p. 120.)

Another explanation is suggested by the Professor, but want of space compels its omission. We would call attention, as a further illustration of his manner, to the very interesting description furnished (p. 139–144) of the Alexandrian Museum, from which we had marked a portion for quotation.

The results of the Grecian experiment becoming available to the other nations of Europe through Rome, by which they were gathered up and passed on to them, by way of aid towards the better understanding of their development, a digressive sketch is given, in chapter eighth, of her history and philosophical influence, which will well repay careful perusal.

On the war-system of Rome take the following remarks :—

"The political maxims of the republic, for the most part, rejected the ancient system of devastating a vanquished state by an instant, unsparing, and crushing plunder, which may answer very well where the tenure is expected to be brief, but does not accord with the formula subdue, retain, advance. Yet depopulation was the necessary incident. Italy, Sicily, Asia Minor, Gaul, Germany, were full of people, but they greatly diminished under Roman occupation. Her maxims were capable of being realized with facility through her military organization, particularly that of the legion. In some nations colonies are founded for commercial purposes, in others for getting rid of an excess of population: the Roman colony implies the idea of a garrison and an active military intent. Each legion was in fact so contructed as to be a small but complete army. In whatever country it might be encamped, it was in quick communication with the head-quarters at Rome; and this not metaphorically, but materially, as was shewn by the building of the necessary military roads. The idea of permanent occupation, which was thus implied, did not admit the expediency of devastating a country, but, on the contrary, led to the encouragement of provincial prosperity, because the greater the riches the greater the capacity for taxation. Such principles were in harmony with the conditions of solidity and security of the Roman power, —which proverbially had not risen in a single day—was not the creation of a single fortunate soldier, but represented the settled policy of many centuries. In the act of conquest, Rome was inhuman; she tried to strike a blow that there would never be any occasion to repeat; no one was spared who by any possibility might inconvenience her; but, the catastrophe once over, as a general thing, the vanquished had no occasion to complain of her rule. Of course, in the shadow of public justice, private wrong and oppression were often concealed. Her officers accumulated enormous fortunes, which have never since been equalled in Europe, through injustice and extortion. Sometimes

the like occurred in times of public violence; thus Brutus made Asia Minor pay five years' tribute at once, and, shortly after, Antony compelled it to do so again. The extent to which recognized and legitimate exactions were carried is shewn by the fact that upon the institution of the empire the annual revenues were about two hundred millions of dollars." (pp. 185, 186.)

Chapter nine, which treats of the European Age of Inquiry, describes among other matters the rise of christianity and its contests with paganism, and victory over it; the various forms assumed by it; the relation of Constantine to it; the Arian controversy; the progress of the Bishop of Rome towards supremacy; the character and influence of the Ecclesiastical Councils of the East on it.

In dealing with the causes which aided the triumph of christianity, too much breadth is, we think, assigned to the belief respecting the supposed approaching end of the world, and too much influence imputed to it. While recognizing, moreover, the ability which marks the analysis given of the character and policy of Constantine—which form, we admit, one of the problems of history—we question whether full justice is done to his motives in his acceptance of christianity and action in connection with it. They were doubtless mixed; but there is reason to believe conviction to have had some place among them.

The Age of Faith in the East has two chapters devoted to it, namely, the tenth and eleventh, in the last of which a spirited sketch is supplied of the rise and triumphs of Mohammedanism, whose founder our author is more disposed to look upon—in view of the previously existing state of things, with the prevalence obtained by his system, and certain of the resulting effects—as sustaining the character rather of a "messenger of God" than an "impostor."

Chapter twelve, which deals with the Age of Faith in the West, enters at considerable length into the character of Gregory the Great and his influence on the faith of the West, with the services rendered by France in connection with its propagation. The passage of the Arabians to their Age of Reason forms the subject of chapter thirteen—which is digressive; after which the development of the Age of Faith in the West is continued in chapters fourteen to eighteen. Image worship, the monks, scholasticism, Gregory the Seventh, the Spanish Arabs, the crusades against the Albigenses, the contest of Frederick the Second with the court of Rome, the conflict between Philip the Second and Boniface the Eighth, the Templars and their fortunes, the great schism, the martyrdom of Huss and Jerome of Prague, the fall of Constantinople, with other points of hardly less interest, are made respectively subjects of discussion. A passage of some length and much interest, which we would have liked to give, on the various forms assumed by the idea of the supernatural, we are constrained to omit.

Chapters nineteen and twenty describe the approach of the Age of Reason in Europe; and chapters twenty-two to twenty-five the Age itself with its results, chapter twenty-one being occupied with a digression on the condition of England at the end of the Age of Faith; while chapter twenty-six, which forms the conclusion, presents the author's views in regard to the future of Europe.

While in our examination of the work of which the above analysis, necessarily brief and imperfect, has been given, we have met with views on some points which we might hesitate to endorse, we regard it as furnishing evidence of a desire to ascertain truth on the matters dealt with ; a disposition to express convictions freely, respectfully, and with a reasonable modesty ; and a power of thinking and giving utterance to thought in language appropriate and easy of comprehension, highly creditable to its author. It is not often that a knowledge so intimate of so many subjects, and these so various, and of such a kind, is met with in the same writer. The style is agreeable, and easy in its movement, and unites a good degree of force with an entire freedom from pretentiousness. We commend the work, with all heartiness, to our readers, in the firm belief that such of them as may take the trouble of giving it a careful and candid perusal, will, to whatever conclusions they may come on some of the ideas contained in it, thank us for calling their attention to it.

It cannot, we think, be intelligently read, without great profit.

Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1861. Washington : Government Printing Office, 1862.

In 1846 the Congress of the United States established the Smithsonian Institution, as trustee to the will of Smithson. The property left by this philanthropist was bequeathed to the United States, and the bequest was for the benefit of mankind.

James Smithson was a natural son of the Duke of Northumberland. He bequeathed his fortune to an illegitimate son of his illegitimate brother, with remainder to the children of the latter, legitimate or illegitimate, and then remainder over to the government of the United States. The last person died, leaving no legitimate issue, and the bequest to his illegitimate issue—they not having been specified by name—was held invalid by the English Courts, so that the United States succeeded to Mr. Smithson's splendid gift.*

The Report for 1861,† now before us, removes apprehensions which have been entertained by the friends of the Smithsonian Institution, that a considerable portion of its funds were jeopardized since the commencement of the Civil War. We are exceedingly glad to hear, that not only does the original fund of Smithson thus remain safe and unimpaired in the treasury of the United States, but after paying for the building, collecting a library and museum, and conducting all the operations which have given character to the establishment, out of the income ; an extra fund has been accumulated from the interest itself, which, at the date of the last report, yielded 7716 dollars. It is only during the past year that a part of this fund has been

* North American Review, page 49, No. CC.

† We acknowledge with much pleasure the receipt of the Reports of the Smithsonian Institution for 1854, 1855, 1856, 1857, 1858, 1859, 1860, and 1861, from the Secretary of the Institution.

unproductive. The investment of $50,000 of the fund in Virginia State Stocks, and $11,000 in those of Tennessee, has reduced the interest by about $4,000, but as an offset to this reduction, the principal of an annuity amounting to $25,000, has fallen in and will now be added to the bequest of Smithson. Besides the Annuual Report, printed at the expense of the government, but edited by the Secretary of the Institution, which will be noticed further on; there is published a volume annually of Smithsonian contributions, in quarto form, many of them splendidly illustrated, and comprehending important original papers on all branches of human knowledge.

Assistance has been rendered by the Institution to Exploration in different parts of America. The assistance rendered has not been confined to the United States, but has extended to those vast Territories under the control of the Hudson Bay Company.

The explorations of Mr. Robert Kennicott in this quarter are especially interesting, and due credit is given to the H. B. Company for their liberality in offering Mr. Kennicott every facility, and for traversing the vast regions under their control. Dr. Joseph Henry, the able secretary of the Institution says:—

"The explorations by Mr. Robert Kennicott, in the northwestern part of this continent, are still going on, the Hudson's Bay Company have extended the time and afforded additional means for the prosecution of the work. From the latest advices from Mr. Kennicott, he had reached Fort Yukon, on the Yukon river, a post in Russian America, and in a region almost entirely unknown, not only in regard to its natural history but also as to its geography. From this point he intended to continue his explorations to the mouth of Anderson river, on the coast of the Arctic ocean, and to return home about the end of the year 1863. It is proper to remark that in defraying the expense of this exploration the Institution has been assisted by the University of Michigan, the Chicago Audubon Club, the Chicago Academy, Academy of Natural Science, and by several gentlemen interested in natural history, and that without the facilities afforded by the Hudson's Bay Company and its officers the enterprise, as at present extended, could not have been acomplished. Not only has Mr. Kennicott been received as a guest at the different posts, but free transportation has been afforded for himself and his collections. It is gratifying to the friends of this zealous and accomplished young naturalist to learn that he has everywhere succeeded in exciting the sympathy and awakening the interest of the officers and employés of the foreign governments through whose territories his explorations have extended. And, thus, while actively engaged himself in extending our knowledge of these remote regions, he has diffused a taste for natural history, and enlisted the services of a number of active collaborators.

The officers of the Hudson's Bay Company have instituted local explorations at the principal stations, which, taken in connection with what Mr. Kennicott is doing, bid fair to make the natural history of Western Arctic America as well known as that of any part of the continent. Among the most active of those who have become voluntary collaborators of the Institution is Mr. Bernard R. Ross, chief factor of the Mackenzie river district. From that gentleman we are receiving, from time to time, valuable collections

of specimens to illustrate the natural history and ethnology of the region in which he resides.

Another gentleman, Mr. Lawrence Clark, jr., of Fort Rae, has contributed largely to our collection of specimens from the vicinity of Slave lake. Besides these, I must refer to the report of Professor Baird for the names of a number of other gentlemen who have made similar contributions from different parts of the Hudson's Bay territory, and other districts of North America."

As the Hudson's Bay Company is now attracting more than usual attention, the following testimony to the zeal exhibited by many officers of the Company, in extending our knowledge of the natural history of the vast wilderness under their charge, will be read with interest. It is from the Report of the Assistant Secretary, Professor Spence F. Baird.

"*Exploration of the Hudson's Bay territory by officers of the Hudson's Bay Company.*—The gentlemen of many of the Hudson Bay Company's posts have largely extended their important contributions to science, referred to in the preceding report. A large proportion of the principal stations have thus furnished collections of specimens and meteorological observations of the highest value, which, taken in connection with what Mr. Kennicott is doing, bid fair to make the Arctic natural history and physical geography of America as well known as that of the United States.

Pre-eminent among these vallued collaborators of the Institution is Mr. Bernard R. Ross, chief factor of the Mackenzie River district, and resident at Fort Simpson. Reference was made in former reports to his contributions in previous years; those sent in 1861 are in no way behind the others, embracing numbers of skins of birds and mammals, some of great variety, &c., besides very large series of specimens illustrating the manners and customs of the Esquimaux and various Indian tribes. Mr. Ross has also deposited some relics of Sir John Frankiin, consisting of a gun used by him in his first expedition, and a sword belonging to the last one, and obtained from the Esquimaux. Mr. Ross is at present engaged in a series of investigations upon the tribes of the north, to be published whenever sufficiently complete, and illustrated by uumerous photographic drawings.

In making up his transmissions to the Institution Mr. Ross has had the co-operation of nearly all the gentlemen resident at the different posts in his district, their contributions being of great value. Among them may be mentioned Mr. James Lockhart, Mr. Wm. Hardisty, Mr. J. S. Onion, Mr. John Reed, Mr. N. Taylor, Mr. C. P. Gaudet, Mr. James Flett, Mr. A McKenzie, Mr. A. Beaulieu, &c.

Second in magnitude only to those of Mr. Ross are the contributions of Mr. Lawrence Clarke, jr., of Fort Rae, on Slave lake, consisting of many mammals, nearly complete sets of the water fowl, and other birds of the north side of the lake, with the eggs of many of them, such as the black-throated diver, the trumpeter swan, &c.

Other contributions have been received from Mr. R. Campbell, of Athabasca; Mr. James McKenzie, of Moose Factory; Mr. Gladmon, of Rupert House; Mr. James Anderson (a) of Mingan; Mr. George Barnston, of Lake Superior; and Mr. Connolly, of Rigoletta. Mr. McKenzie furnished a large

box of birds of Hudson's Bay, while from Mr. Barnston were received several collections of skins, and eggs of birds, new and rare mammals, insects, fish, &c., of Lake Superior.

It may be proper to state in this connection that the labors of Mr. Kennicott have been facilitated to the highest degree by the liberality of the Hudson's Bay Company, as exercised by the directors in London, the executive officers in Montreal, (especially Mr. Edward Hopkins,) and all the gentlemen of the company, in particular by Governor Mactavish, of Fort Garry, and Mr. Ross. In fact, without this aid the expense of Mr. Kennicott's exploration would be far beyond what the Institution could afford, even with the assistance received from others. Wherever the rules of the company would admit, no charge has been made for transportation of Mr. Kennicott and his supplies and collections, and he has been entertained as a guest wherever he has gone. No charge also was made on the collection sent from Moose Factory to London by the Company's ship, and in every possible way this time-honored company has shown itself friendly and co-operative in the highest degree to the scientific objects of the Institution."

The general appendix to the Report contains Lectures on various subjects —Memoirs, papers on the progress of Science in different departments, Reports on special subjects of Enquiry, &c.

THE BRITISH MONTHLIES.*

BLACKWOOD.—JULY.

"*From Cracow to Warsaw.*"—The Poles look with hope towards France in their present struggle. They derive all their ideas of European policy from French newspapers, and while uniting a profound respect for the Emperor of the French, they are moved by their traditional associations with the country he rules to rely upon the universal sympathy, both passive and active, which they live in hope of soon receiving. The following account of events sent by the Mayor of a small town, places the real robbers and destroyers of the country in the true light.

"At twelve o'clock on such a day, the Destroyers of order (the Insurgents) arrived ; they took so much flour, so much brandy, so many pigs, &c., for all of which they paid, and then they retired ; and at four o'clock the Pre-

* THE BRITISH MONTHLIES, including *Blackwood* (American reprint), *Cornhill, Temple Bar, The St. James' Magazine, Good Words, London Society, The Churchman's Magazine, The Exchange*, &c., &c., can be procured each month at Messrs. Rollo & Adam's, Toronto.

servers of Order, (Russians) arrived ; they took so much flour, so much brandy, so many pigs, &c., for which they did not pay ; they then burned the town to the ground and retired."

Absolute confidence and unity of purpose appears to exist among the insurgents. Both police and soldiers are baffled, in fact the police are unquestionably in league with the insurgents, and the mode of communicating intelligence is perfectly safe, the chief artifice being to speak of every public event as a domestic incident, and persons of note are represented under familiar family christian names, and important movements as domestic episodes. The Central Committee, that occult body, is in full activity and governs Poland as it pleases. Its history will be most curious and instructive, if ever it is written. They make use of the government machinery, telegraphs, and police, for carrying out their secret designs, ; they deserve the highest credit for patriotism and skilful organization.

"*Ireland Revisited.*"—Twelve years have produced a vast and most satisfactory change in the condition of Ireland. Healthy vitality and vigorous life are now characteristic of districts where the greenness of putresence flourished some years since. In 1849 upwards of 2,000,000 of paupers had to be relieved, in the tenth year afterwards the number did not reach 150,000. Ireland is still the land for the Antiquary, If she cannot match England in the number, the greatness and the perfect art of her gothic buildings, she excels the rest of the empire, in abundance of those mysterious and chaotic antiquities, as to which we only know, that they go back beyond the bounds of recorded history, and cannot be attributed to any specific age or people. This fair country contains a rich and little-appreciated harvest of curious and uncommon types of ecclesiastical architecture.

"*The London Art Season.*"—The competition designs for the Prince Consort Memorial were publicly exhibited in the Royal Gallery of the House of Parliament. The following architects took part in this contest :—James Pennethorne, Philip C. Hardwick, Thomas L. Donaldson, George Gilbert Scott, M. Digby Wyatt, Charles Barry, and Edward M. Barry ; and in the plans displayed by these well-known men, was fought out once again the great battle of the styles. Classic and Gothic, with a mongrel which was neither one nor the other, each sought for victory. Classic temples, monuments suggestive of the Mausoleum of Halicarnassus ; canopies, crosses, buildings not unlike the Baptistry of Florence ; statues, cascades, flights of steps, a 'Medieval Fountain of National Science, and a 'Classic Fountain of National Art,'—such were the varied and prolific conceptions which these seven architects submitted to the approval of the Committee and the public at large. The genius displayed by these works, with one or two exceptions, was of that quality which may be fairly designated as sinking, on the one hand, into the simply feeble, or rising, on the other, to the boldly extravagant. If the noble art practised by the architect have in this country witnessed a revival—a proposition which we do not dispute—certainly evidence of the great renaissance was wanting in the late competition. But one exception at least to this sweeping judgment must be made in favour of the design executed by Mr. Gilbert Scott. This "magnificent design," to quote

the words of the Committee, has been by some persons termed an Eleanor Cross; by others it has been likened to Sir Walter Scott's Monument in Edinburgh; and again we have been told that the original type is to be found in ecclesiastical Baldichini—the grandest of which, for example, a design by Bernini, canopies the high altar of St. Peter's in Rome. To each of these well-known forms Mr. Gilbert Scott's conception bears some resemblance, yet does it differ from all by virtue of an originality of its own. The central or chief idea of this Memorial is a statue of the late Prince, to which the architectural structure comes as a protecting tabernacle and crowning pinnacle. The next motive in the design, we are told by the architect himself, was that this overshadowing structure should have the character of a vast shrine, enriched with all the arts by which the idea of "preciousness" could be imparted to the object protected. In the centre, as we have said, is placed the statue of the Prince Consort, seated in an attitude of repose and dignity, and around, on pedestals and in niches, or on pinnacles, are groups of sculpture illustrating the arts and sciences which the late Prince fostered, or commemorative of those great undertakings which he originated. The whole structure is crowned by a lofty spire of ornate tabernacle work, gilt and enamelled, terminating in a cross at the height of one hundred and fifty feet above the level of the surrounding ground. The entire edifice, decorated to utmost splendour, may indeed be said to shine in the full light of "the lamp of sacrifice." The materials, if the finances at command should be found adequate, are little short of sumptuous. The white marble of which the work will chiefly be composed, it is intended, shall be inlaid with granite, porphyry, crystals, and cornelians, thus imparting to the architectural composition the polychromatic brilliancy known to the buildings of Lombardy. The gables or pediments will be filled with mosaic pictures; the vaulted roof of the canopy beautified with the enamels or mosaics received by Salviati in Venice, and displayed, it may be remembered, at a stall in the nave of the late International Exhibition. Thus can we well understand that this design —which certainly promises, should it ever be completed, to be one of the most elaborate and ornate architectural edifices which this country and century have witnessed—will possess the merit of uniting within itself those decorative arts to the formation of which the late Prince was so zealously devoted. A fatality, we are sorry to be reminded as we turn to all sides of the metropolis, has attended nearly every one of our public monuments. We trust that this the last and greatest, will prove an honourable exception. The very magnificence of the enterprise has alone, however, filled some minds with misgivings as to the ultimate issue. The voluntary subscriptions, we know, reach close upon £60,000; and the State has augmented the sum to a total of £110,000. We feel assured, too, that if further subsidies be wanted, Parliament will meet the requirement, whenever it may arise, in a liberal spirit.

"*Under the Limes.*"—Berlin in 1863.

"*Chronicles of Carlingford: The Perpetual Curate.*"

THE VICTORIA MAGAZINE—JULY.

The new claimant for public favour has reached its third number. It is something in the style of *Cornhill*; among the contributors are some well known names.

"*The Humour of Various Nations.*" hardly does justice to the subject. The introduction of a few anecdotes, old as the hills, would scarcely seem to illustrate the Humour of a Nation.

English, Scotch, and Irish humour are widely distinguished from one another. English Humor, of the most purely national cast, shows itself in our great towns among the working (and *idling)* classes, the cabbies, costermongers, and, above all, the street sweepers, and city Arabs. The repartees of these men and boys—their instant appreciation of the ridiculous in any little scene or uncommon figure in the streets—is peculiarly English. There is nothing like it that we have ever observed on the Continent; the inimitable *gamin* of Paris, of whom Gavroche is the type, being quite another genus. We have a capital idea of it when Leech makes the poor old country clergyman in the omnibus, appeal piteously, with infinite mildness, to the conductor, to "make haste and save his appointment in the Strand," and the conductor cries to the driver, "Go on, Bill! Here's a old cove a cussin' and a swearin' like anythink!"—and another, when the magnificent "swell," with his head in the air, walks out of Tattersall's and a street boy exclaims, "I say! They've let out that 'ere hanimal without his martingale on!" We can vouch for the fact of the following, which is still better. A lady, teaching in a ragged school one Sunday evening, was trying to impress on her class of young city Arabs the duty of thankfulness to Providence; and, to begin at the lowest and most tangible proposition, asked them to mention the pleasures which in the course of the year they enjoyed the most; holiday's on some fine neighbouring downs being in her unsophisticated mind the probable reply to her questions, or at the worst the good Christmas dinner provided by the guardians of the schools. The class, composed of ten or a dozen lads between sixteen and eighteen, all sat very still for a moment in profound cogitation. Then the leader lifted his head, looked the lady straight in the face, and answered:

"Cock-fightin,' ma'am."

On a different occasion, some other boys of the same description being asked to define what conscience might be, answered that it was "a thing a lady or ge'mman hadn't got, who, when a lad found their handkerchiefs and gave them back to them, didn't give the boy sixpence."

There are two kinds of Irish wit—the intentional and unintentional. Of this latter sort, there is an absolutely limitless supply, afforded by the redundancy of metaphor and illustration common to the national mind, and productive of absurdities and hyperboles delightful to study.

The queer ideas which enter the fertile brains of Hibernians, at all times are sufficiently astonishing. A school of poor children having read in their chapter in the Bible the denunciations against hypocrites who "strain at a gnat and swallow a camel," were afterwards examined by the benevolent, patroness, Lady E——, as to their recollections of the chapter. "What, in

particular, was the sin of the Pharisees, children?" said the lady. "Ating camals, my lady," was the prompt reply.

But beside these unintentional drolleries, there is abundance of true wit in Ireland, with a flavour all its own. Few theological definitions, for instance, could bear the palm from that of a priest, who, having preached a sermon on Miracles, was asked by one of his congregation walking homeward, to explain a little more lucidly what a miracle meant. "Is it a miracle you want to understand?" said the priest. "Walk on then there forninst me, and I'll think how I can explain it to you." The man walked on and the priest came behind him and gave him a tremendous kick. "Ugh!" roared the sufferer, "Why did you do that?" "Did you feel it?" said the priest. "To be sure I did," replied the unhappy disciple. "Well then, remember this. It would have been a 'miracle' if you had *not*."

Very lately a somewhat rigid specimen of the English governess, primly dressed as became her years, and by no means attractive in cork-screw curls and well pinched lips, addressed a Dublin carman in an authoritative manner, with the obnoxious stipulation—

"I take you for an hour."

Cabby (in an insinuating manner), "Ah ma'am, won't ye take me for life?"

The lady's indignation may be easily figured.

Scotch wit or "wut," seems a very difficult thing to describe—perhaps because its vitality is not very highly developed. Scotch people have good sense, good brains, good culture, and super-eminently good conscience, if extreme scrupulosity constitutes goodness in that particular. But very rarely indeed to these fine qualities do they seem to add anything like either English humor or Irish wit. The nearest approach to anything of the kind appears to be a certain dry way of saying things so exceedingly plain and sensible as to occasion the same sense of surprise as that produced by the startling coruscation of ideas belonging to real wit. Of this class is a story we have heard of an English geologist, tempted on a Sunday in Scotland furtively to chip with his pocket-hammer a wayside rock of too tempting appearance. An old woman passing by remarked, with all the sternness befitting the offence, "It's not stones you're breaking, but the Sabbath." Also the old anecdote of the tourist indignantly asking, "Does it always rain in this abominable country?" and receiving the reply, "Na. It sometimes snaws." Another gentleman, sarcastically observing, in the midst of a downpour, "Fine weather!"—was answered doubtfully, "Wall! I was thinking it was raythor dampish."

Above all, there is the capital story of the Scotch lady, who was afraid to go over a certain ferry on a stormy day, and preferred going round by the bridge. Her friends suggested to her that she ought to "trust in the Lord," and have no fear; to which she replied, "I'll na trust in the Lord so long as there's a brigg in the country!"

The advertisement of a Scotch stage coach, some years ago, bore the singular announcement that it would always start on Mondays, "the Lord permitting and the weather being favourable,"—but that failing to do so, it would go on Tuesday *whether or not*.

After Scott and Dean Ramsay, however, it is idle to talk as if "Caledonia stern and wild" had not her merry moods occasionally.

"*The influence of University degrees on the Education of Women.*"—The strongest arguments which can be used in favour of offering some stimulus to the higher intellectual culture of women are in fact those which have been thoughtlessly advanced on the other side. Amazons have never been persons of high intellectual attainments, nor have the most learned women shown any tendency to rush into Bloomerism and other ugly eccentricities. It is true, indeed, and a fact of the utmost significance, that women with great natural force of character, do, when denied a healthy outlet for their energy, often indulge in unhealthy extravagances, simply because it is a necessity of their nature to be active in some way or other. But the fast women and the masculine women are not those who sit down to their books and devote themselves to an orderly course of study. It may be asserted with still greater emphasis, that the hard and cold women are precisely those whom a consciousness of their unimportance to the world in general has made callous to everything but their own petty, personal interests, and in whom the sense of duty and responsibility, or in other words, the conscience, has been deadened and seared by fashionable frivolity.

Great stress has been laid on the alleged fact that women do not themselves want University examinations and degrees. It is always difficult to ascertain the "sense" of women on any given subject. Many shrink from even affixing their names to a memorial, and there is no other recognised method by which they can, in any corporate manner, express their opinions. There can be no doubt that among the more thoughtful, there are many who are eager to obtain for younger women educational aids of which they cannot themselves enjoy the benefit. The cordial support given to this proposal by Mrs. Somerville, Mrs. Grote, Mrs. Gaskell, Mrs. Mary Howitt, &c., and by a large proportion of the ladies concerned in the management of Queen's College and Bedford College, sufficiently attest the fact.

FRASER'S MAGAZINE.—JULY.

"*Young England.*"—"The first thing that strikes one in mixing with young people now is the absence of that diffidence or timidity which has been supposed to belong to inexperience. There is in them generally, though in different degrees, what in the few may be called self-possession, but in the many must be called self-assurance. Afraid of nothing, abashed at nothing, astonished at nothing, they are ever comfortably assured of their own perfect competence to do or say the right thing in any given position. In schools, in universities, in military colleges, or in the world, wherever the young are assembled, these peculiarities are more or less conspicuous. Nor are they confined to the male sex alone. A girl of 18 goes with as much assurance to her first drawing-room as the boy just out of school goes to meet his first introduction to his professional superiors. Their elders remember such days as momentous periods of agitation or nervous shyness, and accompany their hopeful offspring with words of encouragement; while, in truth, it is more

probable that the daughter will support her mother's diffidence, and the son kindly patronise his father in the forthcoming trial to their nerves. One fear alone would be capable of unnerving either. If the youth could imagine that his companions suspected him of any of the poor-spirited qualities which are summed up under the awful accusation of being "green;" if the young lady who last week exchanged school room frocks for ball room dresses, could suppose that anyone would doubt her perfect knowledge of life and society, of all proprieties of dress, manners, and conduct,—then indeed a cloud might come over their mental serenity, and that grand repose of self-satisfaction might be disturbed; but there is little fear of such trouble falling upon them. If it were not for smooth cheeks, baptismal registers, and empty talk, we should rarely suspect them of youth. Truly the talk is the fatal snare. Registers we might not consult; cheeks may owe much to art, but the tongue is indeed an unruly member. In manner and conduct, the assurance of a settled position, or the self-assertion of tried character, may be assumed; but the tongue is loosed, and lo! all disguises fall away. Rushing with characteristic audacity into questions of literature and theology, morals and politics, their age stands quickly revealed. Then, according to our mood, we may laugh or weep, as we hear the morning's sermon and last night's partners discussed with the same off-hand ease by a set of young ladies; the heroes of twenty battles criticised by beardless boys, as they settle their neckties before a mirror; grave theological points, for which in former ages men were content to die, settled between the courses by creatures who were learning their catechism last month; political questions and the characters of public men disposed of in a few words by lads whose own experiences being necessarily a blank, have at least taken care to learn no lessons from history; points of conduct, puzzling to those who best know the trials of life, or rumours of foul-mouthed scandal, blasting honour and happiness in a breath, talked over by girls whose untried lives station has kept outwardly pure, even though youth has failed to keep them pure in mind or gentle in feeling.

"Want of reverence is one of the common faults of the young in our day. That it should accompany great self-assurance is nothing wonderful, though it is not easy to say which is the cause or the effect of the other; whether the undue growth of self-importance first hides from us the relative proportions of what is out of self, or whether, being first devoid of that noble feeling that pays instinctive homage to all that is great, we are driven to seek satisfaction in poor and arid admiration of ourselves. This knotty question of precedence in mental infirmity we are fortunately not obliged to decide; enough for us is the fact that in some manner the tendencies of our age have fostered a peculiarity apparently little congenial to youth. For it has been commonly supposed that, left to its natural instinct, the young mind is prone to reverence. Though often rash and presumptuous, youth has generally shown these faults in over calculating its strength, for every great and noble deed that he had, fed its hero-worship and fired its enthusiasm. A lofty ideal was present, and the untried courage spurned every worldly obstacle. But the presumption of our fast generation is no such heroic failing. It is not born of overweening satisfaction in actual achievement. It says not "Wait and see what we can do!" but "Look and behold what we have

done! how deep we are in the world's lore! how free from foolish prejudices; how far above ancient objects of veneration?" Those who enjoy this consciousness of inward strength naturally look not, as the inexperienced of former ages looked, for advice and encouragement from some whom they respected or revered; but on the other hand, they are willing enough to bestow it; thus their elders are saved a world of trouble; may have guidance if they will accept it, dismissing the old-fashioned hobbling guide called experience. It is time they should acknowledge that in place of one Minerva, whom Athens was proud of, we have a whole generation born ready armed for every conflict; whose swaddling-clothes are a panoply of wisdom. No wonder that they go their way rejoicing. They know everything except their own ignorance and the few things that may chance to hide, and divine everything except the feelings which these peculiarities of theirs are apt to excite in differently constituted minds. Nor, as we said above, are they chary of their superior wisdom, but willingly impart it; the misfortune is that the terms in which it is expressed are not always clear to the uninitiated, to the decrepit understandings whose culture was mostly effected while slang was denied the privilege of decent society; so that a new dictionary must needs be compiled before the sagacity of the fast school can be usefully digested into a new proverbial philosophy for common use and guidance.

"*Nil admirari* is almost necessarily the motto of such a school. It has been at all times the resource of fools aping wisdom; but now we believe it is not a mere affectation, but a sadly genuine state of feeling. Various causes have combined to wither the poetic element in the young mind, and with it naturally decays the faculty of admiration, the source of some of our truest enjoyments and most elevating emotions. The youngest can rarely be content now to see, and feel, and enjoy; they must also, or rather first, judge, compare and criticise—a process all the more rapid the fewer the grounds passed for comparison and judgment. Many would seem to have been born old, so completely has the gloss of life worn off before the fulness of life has ever been tasted. They come from country homes, and London seems quite commonplace to them. They go to the theatre for the first time, and are perfectly composed; for ever *a la hauteur des circonstances*, they criticise the arrangements, the acting, the getting up, and the audience with the aplomb of an habitué. They go abroad and no contrast seems to prompt an inquiry, or waken an emotion of surprise. They see the grandeur of nature, or the marvels of art, or the triumphs of science, and they may approve, but not wonder; they may express a judgment but not ask a question; they may be satisfied, and gratify science or nature by saying so, but not be wrought into that state in which fuller minds feel overwhelmed by the presence of the sublime, and yield themselves with a sense of fuller life to the emotion which finds no utterance. Never, perhaps, were such varied excitements presented to eye and ear as in the present day; but it would seem that, in the absence of the pure and simple spirit of enjoyment, the excitement itself is the sole object. It is not the music, or the scenery, or the riding which is the attraction, but the party with whom these pleasures are to be enjoyed, and the dinner or the dress involved, according as it is a male or female imagination that dwells upon the prospect. It follows that there is little medium between

excitement and *ennui:* and that the latter quickly resumes its sway till some new thing awakens a moment's curiosity, or promises some fresh stimulus. The love of excitement explains why, in the midst of the prevailing apathy, there exists an insatiable craving for what they are pleased to call fun. Strange enough are some of the things which go under that name. *Outre* dress, *outre* language, *outre* manners, and *outre* flirting all come under this head. Even in the female use of the term it often includes slang, smoking, and a somewhat questionable love of adventure; while used by the nobler sex, it would be hard to limit its signification; since ranging through every puerile amusement, it has been seen also to embrace that rare delight in other men's peril, which inspired certain chroniclers of Indian horrors and certain amateur camp-followers of Garibaldi—voluntary witnesses of a nations strugle for life or death, who rode out to a battle field to get an appetite for breakfast, and made merry over the squalid equipments of an army of heroes."

GOOD WORDS.—JULY.

"*On Comets.*"—By Sir John F. W. Herschel, Bart.

During the epoch of recorded history, namely 6000 years, the number of comets which have been, or might have been seen is probably between 20,000 and 30,000.

That same great comet of 1680, which occurred while Newton was brooding over those grand ideas which broke upon the world like the dawn of a new day in his "Principia," afforded him a beautiful occasion to test the truth of his gravitation theory by the most extreme case which could be proposed.—The planets were tame and gentle things to deal with; a little tightening of the rein here, and a little relaxation there, as they careered round and round would suffice, perhaps, to keep them regular, and guide them in their graceful and smooth evolutions. But here he had a stranger from afar—from out beyond the extremest limits of our system—dashing in, scorning all their conventions, cutting across all their orbits, and rushing like some wild infuriated thing close up to the central sun, and turning short round it in a sharp and violent curve, and with a speed (for such it was) of 1,200,000 miles an hour at the turning point, and then going off as if curbed by the guidance of a firm and steady leading rein held by a powerful hand, in a path exactly similar to that of its arrival, with perfect regularity and beautiful precision; in conformity to a rule which required not the smallest alteration in its wording to make it applicable to such a case. If anything could carry conviction to men's minds of the truth of a theory, it was this. And it did so. I believe that Newton's explanation of the motions of comets, *so exemplified*, was that which stamped his discoveries in the minds of men with the impress of reality beyond all other things.

This comet was perhaps the most magnificent ever seen. It appeared from November, 1680, to March, 1681. In its approach to the sun it was not very bright, but began to throw out a tail when about as far from the sun as the earth. It passed its perihelion on December 8th, and when nearest, it was *one-sixth* part of the sun's diameter from his surface (one-fifty-fourth part of

an inch on the conventional scale of our imaginary figure), and at that moment had the astonishing speed I have just mentioned. *Now, observe one thing,*. The distance from the sun's centre was about $\frac{1}{160}$ part of *our* distance from it. All the heat we enjoy in this earth comes from the sun. Imagine the heat we should have to endure if the sun were to approach us, or we the sun to $\frac{1}{160}$ part of its present distance! It would not be merely as if 160 suns were shining on us all at once, but 160 times 160, according to a rule which is well known to all who are conversant with such matters. Now that is 25,600. Only imagine a glare 25,600 times fiercer than that of an equatorial sunshine at noonday with the sun vertical! And again only conceive a light 25,600 times more glaring than the glare of such a noonday! In such a heat there is no solid substance we know of which would not run like water, boil, and be converted into smoke or vapour. No wonder it gave evidence of violent excitement. Coming from the cold region outside the planetary system torpid and ice-bound, already, when arrived even in our temperate region, it began to show signs of internal activity: the head began to develop and the tail to elongate, till the comet was for a time lost sight of. No human eye beheld the wondrous spectacle it must have offered on the 8th of December. Only four days afterwards, however, it was seen, and its tail, whose direction was reversed, and which (observe) could not possibly be *the same tail* it had before (for it is not to be conceived as a stick brandished round, or a flaming sword, but fresh matter continually streaming forth)—its tail, I say, had already lengthened to an extent of about ninety millions of miles, so that it must have been *shot out* with immense force in a direction *from* the sun; a force far greater than that with which the sun acted on and controlled the head of the comet itself, which, as the reader will have observed, took from November 10th to December 8th, or twenty-eight days, to *fall to* the sun from the same distance, and that *with all the velocity it had on November 10th to start with.*

All this is very mysterious. We shall never perhaps quite understand it; but the mystery will be, at all events, a little diminished when we shall have described some of the things which are seen to be going on in the heads of comets under the excitement of the sun's action, and when calming and quieting down afterwards.

"*Good Words for Children.*"—These are "Endless Life," "Endless Joy," "Our Father," "Trust in God."

"*What Hester Durham lived for*" is a beautiful and affecting story of the Indian Rebellion.

"*Sisterhoods.*"

"*Woe because of Offences.*"

"*Remembrance,*" *&c., &c.*

THE CORNHILL MAGAZINE.—JULY.

"*Over-eating and Under-eating.*"

It is a remarkable fact that the children of Lancashire, since the cotton distress, have actually become more healthy, and the mortality among these lit-

tle helpless things has become markedly less. The explanation is simple, the mothers are now unemployed, and have time to atttend to the feeding of their children, and they are far more skilful at this task than the incompetent persons to whom it is ordinarily confided. People in general eat too much, and the use of alcoholic stimulants with abundance of food is productive of disease. The value of different kinds of food is generally misunderstood. Onions are now regarded as equal in nutritious qualities to four times their weight of any vegetable except leeks. Cheese is also as nutritive a diet as one can name, but it ought to be well masticated. White bread is far less nutricious than brown, and yet it is commonly prefered by the poorer classes in England.—Ignorance of knowing what to eat and how to cook is the cause of much misery in the aggregate.

"*Was Nero a Monster.*"—This paper throws the gravest doubts on the generally received impressions respecting Nero's character. The testimony of the classic witnesses against this man is discussed, dissected and overthrown. Science is appealed to as establishing almost beyond doubt the absurdity of some of the charges which have blackened Nero's reputation. Common sense is next called into the witness-box and throws her sheltering wing over the emperor. All that is thoroughly reliable is the fact that a tradition of Nero's infancy existed, and was unhesitatingly accepted ; a tradition all the more noticeable since it was coupled with one which made his early years of brilliant promise, so that Trajan in after days expressed the wish that his whole reign might rival the splendor of Nero's commencement.

The writer does not wish the object of his essay to be less the vindication of Nero's character, than an appeal to the common sense of mankind to be vigilant in its demands of evidence, when called upon, either in history or in gossip circulated about living men, to accept statements affecting character and motives.

"*The Small House at Allington*" is becoming very interesting, and will probably prove a far more acceptable tale for the majority of the readers of Cornhill than the more highly wrought and polished historical romance which bears the title of

"*Romola.*"

"*Professional Etiquette.*"

"Some years ago a gentleman, who lived in a somewhat lonely part of the country, was asked to go and see a poor neighbour who was very ill. On his arrival he found the man at the point of death, and extremely anxious to see a clergyman. The visitor went to the house of a clergyman who lived near, and told him of the dying man's wish. The clergyman replied that as the house of the dying man was out of his parish he could not interfere, nor could any remonstrances induce him to do so. An eminent lawyer was so fortunate as to be made the heir of a rich and childless old man, who, falling ill, showed him his will, by which it appeared that the testator had given a life-interest only to his intended heir. When this was pointed out to the sick man he said, "Yes, but I understood you to say you meant never to marry?"

"I may have said so," was the answer, "but I certainly did not seriously mean it, and at any rate I should not wish you to act upon that assumption." "Then," said the sick man, "draw up the will so as to give yourself the absolute property, and I will execute it." The lawyer replied, that he could not make a will in his own favour, and before another lawyer could be found the testator had died, and the mistake had become irreparable. A gentleman was poisoned but escaped with his life; the poison remained in his body, and caused him grievous suffering. He employed certain unrecognized remedies, and by means of them, as he considered, recovered his health, and got the poison out of his system. He went to an eminent physician and described his case. The physician said, "I will treat you on the supposition that you really have got rid of the poison, but don't tell of me, for the remedy which, as you say, has got it out, is not recognized by the profession."

"These illustrations are instances taken from the three learned professions of a sort of secret code of laws, of which the outside world understands neither the principles nor the applications, but which exercise a wider influence than most people would suppose over the proceedings of some of the most important classes of the community."

LONDON SOCIETY.—JULY.

This is decidedly the best number of the series, as far as its literary character goes. The illustrations, too, are good, but not equal to those which beautify some preceding numbers.

"*The first time I saw Her*" is the beginning of a London story, which promises to become particularly interesting.

"*The Derby Day under an Umbrella.*"—One never tires reading good descriptions of the Derby Day, and although the circumstances under which the writer viewed this great national fête were not encouraging, yet he succeeds in giving a very interesting and lively narrative under unfavourable circumstances. The rain did not in the least degree lessen the fun or mar the enjoyment of thousands, although the uncloaked public must have had their ardour, but evidently not their spirits, damped by the downfall. The illustrations are worthy of *Punch*.

"*Among the Powder.*"—One would scarcely have expected to find a minute description of a powder manufactory in *London Society*. The writer succeeds, however, in keeping up the interest of his subject admirably, and treats of sulphur, saltpetre, and charcoal, crushing mills, drying mills, and magazines, as if they were the liveliest subjects for light literature.

"*The Doctor's Fortune.*"

"*How she was dressed for the Ball.*"—

> "Roses glowed ardent red on her dress,
> Glowed ardent red on her lips,
> Roses fainted and drooped on her hair,
> And died on her finger tips.

"Gold clasped the marble curve of her arms,
It wound round her throat so fair,
It coaxing drooped from her pearly ears,
And rippling gold was her hair."

"*Dicken's Dogs; or, the Landseer of Fiction.*"

AMERICAN PERIODICALS.

THE NORTH AMERICAN REVIEW—JULY, 1863.

"*The North American Review*" has now been published for more than forty years. It has long held a foremost place in the ranks of American periodical literature. The July number contains articles on

I. Traits of Jean Paul Richter and his Titan.
II. Peerages and Genealogies.
III. The Chronology, Topography and Archæolgy of the life of Christ.
IV. Liberia College. &c., &c.

"*Peerages and Genealogies.*"—The English nobility is of Norman origin. Few of the Saxon families survived the Conquest, and those which did were subjected to the feudal system, introduced by the Conqueror. The earliest honours were territorial, the counts or earls being governors of counties, with high authority, and the barons feudal tenants. All the tenants *in capite*, whether by knight's service or grand sergeantry, were required to give their attendance upon the sovereign at stated times, and at times to give advice. The transfer of the tenure to another person transferred the honours and duties to him. Thus were created barons *by tenure*, and such were all the great baronies of of the earlier Norman kings. It has for a long time been in dispute whether the possession of one of these ancient baronies entitled the owner to a writ of summons to the House of Lords. The question was frequently raised, but never decided until two years ago, when Sir M. Berkeley claimed a summons as proprietor of Berkeley Castle, and it was then declared that baronies by tenure had long ceased to exist in England.

Baronies by writ of summons followed the tenure baronies. These were created by a writ of summons issued under the great seal to certain individuals to attend Parliament. Some persons were summoned regularly, others only occasionally, or even only once. The custom varied, also, as to the heirs of a first baron. But if a person summoned actually sat in Parliament, he acquired a barony in fee, which descended like real estate at common law, the males taking in succession, and the females together. In the latter case the barony falls into *abeyance*, and so continues until all the heirs but one

are extinct, or until called out of abeyance, in favour of one of the co-heirs, by the sovereign. Most of the older baronies now giving seats in the House of Lords have been derived in this manner, as those of De Ros, De Clifford, Clinton, Hastings, Camoys, Willoughby d'Eresby, and Willoughby De Broke, the peers of these names being descendants in the female line of the original grantees.

But for a long time baronies, as well as peerages, have been created by patent, and the honour descends according to the limitation contained in the patent, which in England commonly restricts the succession to the male descendants of the first peer, though occasionally it is extended to collateral and female heirs. In Scotland peerages were generally granted to the heirs general, so that it is morally impossible for some of them ever to become extinct.

The foreign title of Viscount, which ranks next above that of Baron, was introduced in the fourteenth century. It has never been very popular, and was very little conferred until the reign of George III. The Viscounty of Hereford, conferred in 1550 on the Devereux family, is the oldest one giving a seat in the House of Lords. Next, at a long interval, comes that of Bolingbroke, conferred by Queen Anne on the celebrated statesman.

The title of Earl is the oldest in the peerage, and was, as we have stated, the official name for the governor of a county or province, though not since the Conquest. It has long been the favourite title in England, and in Scotland the earls outnumber all the other peers together. The oldest earldom is that of Shrewsbury, conferred on the Talbots in 1442.

The title of Marquess, next above that of Earl, was seldom conferred until the reign of George III. The oldest marquessate is that of Winchester, enjoyed by the Paulets, upon whom it was conferred in 1551. Next in the English peerage is Lansdowne, created in 1784. In the Scotch peerage there are four marquessates ; in Ireland, they are more numerous.

The title of Duke was introduced into England by Edward III., who created his son, the Black Prince, Duke of Cornwall,—a title which descends to all his successors, and gives the Prince of Wales a seat in the House of Lords. The dukedom of Norfolk, created in 1483, is the oldest after Cornwall. That of Somerset dates from 1546. This great title was rarely conferred, except upon princes of the blood, until the reign of Charles II. He and some of his immediate successors were very liberal in bestowing it. Of late, again, it has been bestowed charily, and the number of peers bearing it has actually decreased. The last created were those of Sutherland and Cleveland in 1833. It is understood that it was offered to the late Marquess of Lansdowne and the Earl Fitz-William, but declined by those eminent men.

The House of Lords did not contain more than fifty or sixty persons in the time of the Tudors, and was comparatively small until the accession of Mr. Pitt as Prime Minister in 1783. That statesman recommended a great number for the honours of the peerage,—his peers included the wealthy county families of Lowther, Vernon, Bagot, and Lascelles, and many Scotch and Irish lords ; and his successors in office have also generally been liberal in

titles. The House of Lords, however, has not kept pace in increase with the population and wealth of the country. The country gentlemen have furnished most of the new creations. Next in numbers probably comes the bar, and then those distinguished in political and military life. Many families have owed their foundation to trade and commerce; but the number of persons actually engaged in commercial pursuits who have been raised to the peerage has been small. It includes Lords Carrington, Ashburton, Overstone, and Belper. Literature has one great name,—the late Lord Macaulay. The House of Lords contains three royal princes—the Prince of Wales, as Duke of Cornwall, the King of Hanover, as Duke of Cumberland, and the Duke of Cambridge,—twenty other dukes, nineteen marquesses, one hundred and ten earls, twenty-two viscounts, and two hu dred and ten barons. This list includes all the hereditary members. There are also sixteen representatives of the peers of Scotland, twenty-eight representative peers from Ireland, and thirty-two bishops,—in all, four hundred and sixty members. The Irish representative peers are chosen for life; those of Scotland, for a single Parliament. While the Scotch and Irish peers are entitled only to select a certain number of their order to represent them, many, and, indeed, all the more influential among them, sit in the House of Lords by virtue of English titles conferred upon them. Thus, the Duke of Hamilton in Scotland sits and votes as Duke of Brandon; the Duke of Buccleuch, as Earl of Doncaster; the Duke of Leinster in Ireland, as Viscount Leinster; and the Marquess of Ormond, as Baron Ormond. The peerages of the three kingdoms number about six hundred and fifty persons, including twenty-seven dukes. While a large number of peers are peers of two out of three kingdoms, only three persons are peers of all,—the Marquesses of Abercorn and Hastings, and the Earl of Verulam. An Irish peer, when not entitled to a seat in the House of Lords, may sit in the House of Commons for any constituency out of Ireland. The second Marquess of Londonderry (better known as Lord Castlereagh) and the present Viscount Palmerston are distinguished instances. It has been supposed that this privilege does not extend to Scotch peers; but the question has never been tested.

It is seldom that a commoner is raised at once to a higher rank than Viscount, or even than Baron. George III. did this but twice,—in 1766, when William Pitt was created Earl of Chatham, and in 1784, when Sir James Lowther was made Earl of Lonsdale; and her present Majesty has done it but three times,—in the cases of Mr. Thomas William Coke of Holkham Hall, the Nestor of the Whig party, created Earl of Leicester in 1837, of Lord Francis Egerton, made Earl of Ellesmere in 1846, and of Lord John Russell, made Earl Russell in 1861.

AMERICAN JOURNAL OF SCIENCE AND ART.—JULY.

"*Fossil footmarks of the Connecticut Valley.*"—Professor Hitchcock quotes the views arrived at by Prof. J. D. Dana, with respect to certain kinds of animals existing during the early periods of the earth's history. "The world

will have finally to settle down to the belief, that there were Reptilian birds in ancient times, as well as Ichthyoid Reptiles and Oöticoid Mammals."

"*On the Luminosity of Meteors.*"—Mr. B. V. Marsh states that the greatest splendor of meteors does not arise from the meteor itself, but from the air which surrounds it. The conclusions to which the considerations he enumerates lead, is that the upper regions of the atmosphere, even to its utmost limit, are grand resorvoirs of latent heat, most admirably adapted for the protection of the earth from collision with bodies approaching it with planetary velocity from without. The intruder is invariably surrounded with a fiery envelope, heated to the greatest conceivable intensity; its surface is burned off or dissipated into vapour, the sudden expansion of the stratum immediately beneath the burning surface tears the body into fragments, each of which, retaining its planetary velocity, is instantly surrounded by a similar envelope, which produces like effect; and so on, until in most cases the whole is burned up or vaporized.

The abstracts of the proceedings of the Learned Societies, contain notices of most of the important scientific decisions of the day, and the 'Scientific' Intelligence, brings the reader face to face with what is doing in Europe and America, and in all the vast fields of Natural Science. Most of the articles in this number are of a purely Scientific character.

CANADIAN PERIODICALS.

THE CANADIAN JOURNAL.—MAY AND JULY.

May.

I. *A Popular Exposition of the Minerals and Geology of Canada.* Part V. By Prof. Chapman, Ph. D.

II. *On the Two Species of Astacus found in Canada.* By T. J. Cottle, Esq.

III. *List of Plants Collected chiefly in the immediate Neighbourhood of London, C. W.* By W. Saunders.

VI. *Mean Meteorological Results at Toronto,* for 1862. By G. T. Kingston, M. A.

V. *Notes on the Present Condition of the Oil Wells at Enniskillen.* By Sandford Fleming, C. E.

The supply of oil from flowing wells is sadly on the wane at Enniskillen. The deepest wells have ceased to flow first, that is to yield petroleum, for they still give abundance of brine. The quantity exported from Enniskillen had reached 180,000 barrels in March, yet double that quantity has been discharged by the wells. The "test" well designed to be 1000 feet deep has not yet been completed.

July.

The July number is almost exclusively devoted to mathematical questions. There is a very interesting translation of a Memoir written by M. Arago, on the Constitution of the Sun and of some of the Stars. The following extract will afford the general reader an idea of the immensity of the sun on the one hand, and of his comparative insignificance when placed, so to speak, side by side with the fixed stars. Our sun is really but an atom compared with the infinite host of starry worlds which the telescope reveals to us.

"Archelaus, who lived 488 B.C., and was the last philosopher of the Ionian sect, said of the sun:—'He is a star; only this star exceeds all the rest in magnitude.' This conjecture (for that which is founded neither on measurement nor experiment deserves no other name) was certainly very bold and beautiful. Let us pass across an interval of more than two thousand years, and we shall find the relations between the sun and the stars established by the labors of the moderns on bases which defy all criticism. About a century and a half ago, astronomers sought to determine the distance of the stars from the earth. Repeated unsuccessful attempts seemed to prove that the problem was insoluble. But what are the obstacles over which genius united to perseverance cannot ultimately prevail? We have learned within the last few years the distance which separates us from the nearest stars. This distance is about 206,000 times the sun's distance from the earth, that is more than 206,000 times 38 millions of leagues. The product of 206,000 times 38,000,000 would too far exceed numbers we are in the habit of considering, to render it of any use to state. The imagination will be more struck by the immensity of this number if I connect it with the velocity of light. The star Alpha of the constellation Centaur is the earth's nearest neighbour, if indeed we may speak at all of neighbourhood when we are dealing with such distances as in this case. The light of Alpha Centauri takes more than three years to reach us, so that if the star were anihilated, we should still see it for three years after its extinction. When we remember that light traverses 77,000 leagues (308,000 kilometres) in a second of time, that the day is composed of 86,400 seconds, and the year of 365 days, we may well stand, as it were, aghast at the immensity of these numbers. Furnished with these data, let us transport the sun to the distance of the star which is nearest to us of all, then this circular disk so vast, which in the morning lifts itself so gradually and majestically above the horizon, and in the evening takes a considerable time to descend completely below that plane, will no longer possess sensible dimension even in the strongest telescopes, and its brightness will range it among stars of the third magnitude. You see, gentlemen, what has become of the conjecture of Archelaus! We may possibly feel a little humiliated at the result which reduces to so small a matter our place in the material world. But let us reflect that man has arrived at this result by drawing all from his own peculiar fund, and we shall recognise in this his elevation to the most eminent rank in the domain of ideas. Astronomical investigations may therefore well excuse a little vanity on our part."

HISTORICAL NOTES.*

CANADIAN WHIGS OF 1776.—The Canadians who joined the Americans during the Revolution, were refused, on dying, christian burial by their clergy, and were interred outside of consecrated ground. This was insisted on in all cases where they did not acknowledge the error of their course, and express regret for it. It is related of one of these, that when the *curé* came to exhort him to avow his faults, he half rose from his bed and eyeing him scornfully, exclaimed, "You smell English!" then turned his face to the wall and expired.

LORD AMHERST AND GENERAL WOLFE.—In looking over a pile of letters of a worthy person now deceased, I find the following :—

Lord Amherst, the capturer of Louisburg, and conqueror of Canada, was a personal friend of my father (Collector for a long time of the Port of Halifax), who often related the following anecdote :—

"Wolfe, who was second in command, proposed to take Louisburg in ten days, if the General would intrust the enterprise to him, with the loss of not more than fifteen hundred men." Lord Amherst replied, "I will take it in six weeks without the loss of one." But he did not fulfil all the promise.

"INDIAN SCULPTURES.—Col. J. W. Foster recently presented the Chicago Historical Society four photographs of specimens of sculpture recently exhumed from mounds in Missouri, possessing a marked ethnological interest. The figures are totally dissimilar in outline and costume to the modern "Indian races. Col. Foster designs to present to the Smithsonian Institute a monograph on these valuable and rare archæological remains.

THE HON. THOS. D'ARCY McGEE AND THE *BRITISH AMERICAN MAGAZINE.*

We have very much pleasure in calling the attention of friends of the *British American Magazine* to the following card, which has appeared in numerous Canadian papers :—

A CARD—THE CANADIAN MAGAZINES.

"Some months ago I promised a few literary friends here, and at Quebec, to aid them in starting a new Canadian Magazine—to be called the *National Magazine.* The project not having matured, up to the period of my late absence from Canada, and the *British American* having, in the meantime, been called into existence at Toronto, under the editorship of one to whom

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* From the *Historical Magazine.* New York : Charles B. Richardson.

Canada owes already so much—Professor H. Y. Hind—I do not feel that I should be doing justice to my own sense of propriety or patriotism if I were instrumental in now establishing what might be considered a rival to the *British American*. The patronage within the Province is admittedly too limited to be advantageously divided; I therefore respectfully recommend those friends who may have subscribed to the projected *National Magazine* on my account, to transfer their subscriptions to the *British American*—that they may secure first one Monthly, creditable to the whole country.

"(Signed) THOMAS D'ARCY MCGEE.

"Montreal, August 3, 1863."

A PLEA FOR BRITISH AMERICAN NATIONALITY.

We are authorized to announce that the October number of the *British American Magazine* will contain a second article on "A Plea for British American Nationality," by the Hon. Thomas D'Arcy McGee.

BOOKS RECEIVED SINCE AUGUST 1ST.

"Smithsonian Reports for 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861." From the Secretary.

"Historical Collections of the Essex Institute." Vol. V., June 1863, No. 3. Salem: G. M. Whipple and A. A. Smith.

"The Historical Magazine, and Notes and Queries concerning the Antiquities, History, and Biography of America." January to July, 1863. New York: Charles B. Richardson.

"A Discourse Preached at St. Andrew's Church, Toronto, on the 24th May, 1863." By John Barclay, D.D. Toronto: Lovell & Gibson.

"Journal of Education," Lower Canada. 1863.

"Astronomical and Meteorological Observations, made at the United States Naval Observatory during the year 1861." Commander J. McGillis, Superintendent. From the United States Naval Observatory.

"Report of the Commissioners appointed to enquire into the Affairs and Financial Economy of the Toronto University and University College," Upper Canada.

"The Credit Foncier." By G. B. De Boucherville. Annexed to the Report of the Special Committee appointed by the Legislative Assembly, 3rd March, to enquire into the expediency of establishing it in Lower Canada.

TO CORRESPONDENTS.

W. D., Newmarket—You will find a parcel and letter at the Publishers C. C., Toronto—"Margaret" will appear in the next number. J. B., Kingston—Under consideration.