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# THE CANADIAN JOURNAL.

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No. XCIII.—JANUARY, 1877.

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## THE EASTERN ORIGIN OF THE CELTS. SECOND PAPER.

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In my last paper on this subject I mentioned an important Celtic family which did not trace its descent directly from Gilead, but which, nevertheless, sustained intimate relations with his line. Gael and Cymri, according to Niebuhr, were the two great components of the Celtic stock.<sup>1</sup> Josephus long before had been struck with the connection of the two names, and accounted for it by deriving the Galatians from the patriarch Gomer, in which he has been followed by a large number of writers coming down to the present day.<sup>2</sup> It was, however, with no intention of tracing the family of Gomer or the origin of the Cymri that I commenced the researches in the departments of comparative geography and mythology that have resulted, as I believe, in fixing the relations of the latter. The result, entirely unexpected and even astonishing to myself, was the consequence of a legitimate and full, but by no means exhaustive, induction from geographical facts and mythological statements extending over a wide field. It rests to a great extent, although far from exclusively, upon the collocation of names in the topographical nomenclature and mythological genealogies of many peoples. I do not claim that all the names mentioned by me refer to the personages whose descendants I seek to trace. These are so numerous that time has not permitted me to make that minute investigation into their history which would enable me to write with certainty. A few of them I have already brought forward in totally different connections,

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<sup>1</sup> History of Rome, ii. 520.

<sup>2</sup> Josephus' Antiquit. I, vi. 1.

and the present state of my knowledge does not allow me to assert which of these connections is the most worthy of confidence.<sup>3</sup> I may not even have discovered the precise relations in which the personages with whose history I deal stood to one another. Yet this, I think, will be found indisputable, that they were intimately related, and that *their descendants constituted an important element in the great Celtic family of nations.*

My starting point is the family to which Gilead belonged. This family I believe to have been that of Bethlehem. However, this for the present is immaterial. We read that Gilead had a sister, whose name was Hammoleketh, or, The Queen.<sup>4</sup> This remarkable lady, for such her name would indicate her to have been, has no husband assigned her in the Bible, but the names of her three sons are given. These are Ishod or Ishchod, Abiezer, who is also called Ezer, and Mahalah. In seeking for a fuller genealogy of the family of Hammoleketh, I found it impossible to associate any of the Ezers of Chronicles with her second son, and for the first no connections appear. A geographical trace is, however, afforded for the identification of the former in a place in Abiezer of Palestine, called Ophrah.<sup>5</sup> Now Ophrah is mentioned among the descendants of Othniel the Kenezite. His father is Meonothai, who seems to have married Hathath, the daughter and only child of Othniel. It is very probable, therefore, that Meonothai was the son of Ezer or Abiezer.<sup>6</sup> A more interesting connection has been found for Mahalah. His name is identical, not only with that of the place called Meholah or Abel Meholah, which was Gilcadite, as was also Ezer, Jazer or Abiezer, but also with Mahol, the name of a sage mentioned in the book of Kings.<sup>7</sup> There his three sons are spoken of, their names being Heman, Chalcol and Darda. These sons of Mahol again appear in the book of Chronicles among the descendants of Judah with slight changes, Calcol and Dara presenting variations illustrative of the mutable character of early language.<sup>8</sup> Heman, Calcol and Dara are in Chronicles called sons of Zerah, an honour which they shared with

<sup>3</sup> Eponyms like Ishod and Eshton, Moleketh and Molid, Abishur and Abiezer, Mamro and Zimran, Eschol and Chalcol, cannot fail to present great difficulties in the attempt to distinguish their traces in many languages.

<sup>4</sup> 1 Chron. vii. 18.

<sup>5</sup> Judges vi. 11.

<sup>6</sup> 1 Chron. iv. 13, 14.

<sup>7</sup> Judges vii. 23; Numb. xxi. 32; 1 Kings iv. 31.

<sup>8</sup> 1 Chron. ii. 6.

Zimri and Ethan. In Kings, however, Ethan is spoken of as the son of Zerah or Ezra; Zimri is ignored; and Mahol is made the father of the wise triad. There can be no doubt that these are the same persons. My conclusion, the grounds of which will appear in the sequel, is that Zimri, the first mentioned among the sons of Zerah, was the father of Mahol or Mahalah; that Heman, Chalcol and Darda were his grandsons; and that Zimri accordingly was the husband of Hammoleketh. But who was Zimri himself? For many reasons I have been led to regard him as the same person with Zimran, the eldest son of Abraham by Keturah.<sup>9</sup> Why he is called the son of Zerah I cannot with absolute certainty say, but think it probable that his mother Keturah, after the death of Abraham, married Zerah, an Ethiopian.<sup>10</sup> The above may seem a meret issue of hypotheses. I grant it, and do not ask belief in the alleged facts on a simple *ipse dixit* or plausible statement of theory. My own convictions did not arise from any such arbitrary interpretation of scripture passages, nor did I upon these frame any theory whatever. The evidence which constitutes the remainder of this paper, and which is intended not to trace the family of Zimran but the origin of the Cymri, will, I think, show that the foregoing necessary statement has at least strong probability on its side. Another connection of the family of Zimran may be mentioned here. His mother was Keturah, and his brothers, Jokshan, with a son Dedan and grandsons Asshurim, Letushira, Leummim; Medan; Midian, with his sons Ephah, Ephher, Hanoah, Abidah and Eldaah; Ishbak; and Shuah.<sup>11</sup> As for Keturah, I am inclined to believe that she was a sister or near relative of the Amorites, Aner, Eshcol and Mamre, with whom Abraham was confederate.<sup>12</sup> I have some light upon the story of Zerah, his son Ethan and grandson Azariah, but to set it forth here would involve unnecessary complications.

I purpose restricting myself in the main to the family of Hammoleketh, the sister of Gilead, uniting with her, as it seems to me I must, a certain Zimri or Zimran. As part of this family I count Heman, Chalcol, and Darda, the sons of Mahol or Mahalah. For

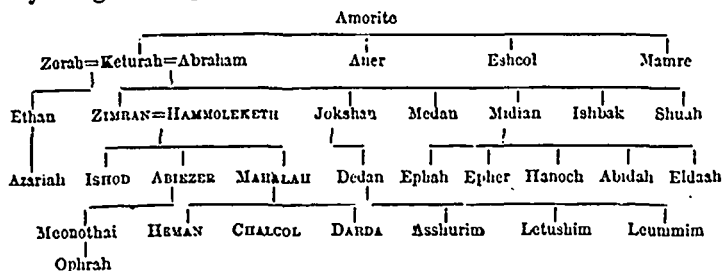
<sup>9</sup> Gen. xxv. 2.

<sup>10</sup> Zerah or Tirhacha long remained an Ethiopian name, 2 Chron. xiv. 9. I do not by any means suppose that Zerah was a Cushite. He was a son of Achumai or Kames, the Horite King of Egypt, and the ancestor of the Zorathites or Caphtorim.

<sup>11</sup> Gen. xxv. 1-4.

<sup>12</sup> Gen. xiv. 13. This connection is antecedently very probable, and the association of the names of Eshcol and Mamre, at least, with those of Keturah and her sons tends to confirm it.

Ishod no other connections have yet been found; and the relations of Abiezer with Meonothai and Ophrah I shall only indicate in passing. In a similar cursory manner I intend referring to the brothers of Zimran and their descendants, as well as to their mother Keturah and her supposed relatives, Aner, Eshcol and Mamre. The following is the genealogy as I propose to restore it, the names in capitals being those which form the subject of geographical and mythological comparison:—



Out of thirty-two names, therefore, I at present, in order to avoid confusion and to guard against hypothetical connections, direct attention to eight only. The list is larger than that which formed the subject of my last paper, and is thus sufficiently large to enable one to predicate something from a mere geographical comparison. Unfortunately, however, there is a lack of determinateness in the character of the names which hinders their presenting that identity of form in different languages, which has appeared in those belonging to the family proper of Gilead. The Greek form of Zimran is Zambran, so that an adventitious *b* or *p* sound may be expected in the body of the word. The final *n* of proper names in Hebrew is exceedingly inconstant, and generally disappears in patronymics.<sup>13</sup> Even the initial *z* may not only be replaced by *c*, *k*, *d*, *t*, or *s*, but may be reduced to an aspirate or even an open vowel. Ishod or Ishchod may be deprived of its initial *i* and appear as Shochad, its root. Abiezer presents peculiar difficulties, the prefix *Abi* being unnecessary, and the word *Ezer* itself, as commencing with *ayin*, and containing the changeable letter *zain*, being liable to appear in such forms as *acr*, *agr*, *adr*, *atr*, *asr*, *azr*, or as the same preceded by *c*, *g*, or some equivalent, *Gadr*, *Actr*, &c. Mahalah may aspirate or altogether omit the

<sup>13</sup> An example is found in Ithrite, a noun derived from the name Ithran. Ithri is to Ithran as Zimri to Zimran.

medial *cheth*, as in Machalah, Malla; it may admit a prosthetic *a*, and, as in the case of Zimran, insert a *p* or *b* sound between the consonants, such as we find in Amphiclea, Amphiale, &c. Heman, commencing with a mere aspirate, may be found preceded by *d* or *t*, Deman, Teman. Chalcol or Calcoul can hardly be expected to retain its final *l*, which may be altogether omitted or replaced by *r* or *s*. Dara or Darda has two forms to begin with, and the final letter being *ayin*, will be found to end with *c*, *g*, *s*, or *ng*. Our subject is thus encompassed with philological difficulties of no mean order, and for this reason I have supplemented the geographical comparisons with others derived from mythology and tradition, which I trust may tend to confirm the evidence that geography supplies.

Palestine affords evidence that the children of Hammoleketh were counted as part of the family of Gilead. Abiezer was situated near the land of Gilead, and Jazer, presenting another form of the name, constituted a region of it; Abel Meholah was in similar proximity, and Barzillai the Meholathite is also called a Gileadite.<sup>14</sup> The name Abel Meholah, if like Abel Mizraim it denotes "the mourning of Mahalah," may furnish the clue to a tragical story. It may, however, simply mean "the meadow." As such we may expect it to reappear in other parts of the world in some form like Philomelium. It is worthy of note that the family is not only represented as one of pre-eminent sages but also of musicians, so much so that the name of Meholah was applied in different forms to musical compositions, and the meaning of the root from which it is derived is *singing*. But the word Zimran itself means *a song*. Abiezer or Ezer indicates *the helper*, and appears in a remarkable Greek word for which no root can be given, *Epikouros*, meaning the same thing. The etymology of Heman and Chalcol is obscure, unless the former, like Jamin, denote *the right hand*. Darda is supposed to signify *the pearl of wisdom*. A similar Celtic connection to that which comparative etymology afforded in the case of the descendants of Gilead is found for three of the names of his sister's family. Zimran, *the song*, is the Erse Amhran, with the same meaning. Mahol or Mahalah is the Welsh Moli, *to sing*, Mawlganu, *to chant*, and the Erse Mal, *a poet*. But, still more remarkable, the obscure word Ishod or Ishchod, from the root Shochad, *a gift or present*, is reproduced in the Erse Asccadh, bearing an identical signification.<sup>15</sup> Were I sufficiently conversant

<sup>14</sup> 2 Sam. xxi. 8 Compare 2 Sam. xvii. 27.

<sup>15</sup> The Persian Shekhaut, meaning *liberal, generous*, is probably the same.



with the Celtic languages, I doubt not that similar agreements of the Hebrew and the Celtic might be found in the case of the other names.

As, in tracing the wanderings of the Celts, Persia was my starting point, it is fitting that the Cymri should first meet us in the same ancient, historic land. It is there, between the Oxus and the Indian Ocean, that Ptolemy and other geographers placed the Comarians.<sup>16</sup> There, also, we find the Gimiri of the Persian inscriptions; and from the same region Pezron derived his Cymri, in which he has been followed by more recent and more scientific investigators.<sup>17</sup> Now, the Bible should shed some light upon this large portion of the population of a country which had important relations with Palestine. And so it does. In Jeremiah xxv. 25, we find the people of Persia classified as Zimri, Elam and the Medes. Elam I have already identified with the Gileadite or Celtic line. I do not at present enter upon the origins of the Medes, who, I am convinced, were like Zimran of the so-called Midianite family, deriving their name, as Matieni itself indicates, from Medan and Midian, two of the sons of Abraham by Keturah.<sup>18</sup> Zimri is identical with the name we have already found in Chronicles, and is the form in which we should naturally expect the Zimranites to appear. I have indicated that the word Zimran presents a variety of modification in transliteration. The initial *z* may be represented by *c, g, d, t, c s*, and may even be replaced by a breathing or an open vowel. An illustration of the latter has been seen in the identity of the Hebrew *Zimran* with the Erse *Amhran*. But a better illustration is afforded in the Arabian Homeritæ, who, according to the testimony of Philostorgius, were the descendants of one of the sons of Abraham by Keturah; and this son can be none other than Zimran.<sup>19</sup> Another form is that of the LXX., in which Zambran is the equivalent of the Hebrew word. Such a form meets us in the modern Persian name, Gombroon. In addition to this name, which belongs to Persis, we find Amariem in Media; Amarus, Asmura, Samariana and Tambrax, in Hyrcania; Ambrodax in Parthia and Margiana; Somiramides Montes in Car-

<sup>16</sup> Ptolem. vi. 11. Pomp. Melæ, c. 2.

<sup>17</sup> Rawlinson's Herodotus, App. Book iv., Essay 1. Pezron's Antiquities of Nations, i. 2, 3, &c.

<sup>18</sup> The traces of the Midianites are found in all the Zimri regions of Asia, Africa and Europe, extending even to the Modona or Slancy in Ireland. Were I to add the traces of Jokshan, this paper would double its size.

<sup>19</sup> Philostorgii Epit. lib. 4, ap. Photium.

mania; Tamorus in Gedrosia; Zimyra in Aria; Amares and Chomora in Bactriana. The eldest son of Hammoleketh was 'shod, a name derived from the root Shochad. In his name we discover the reason why Segistan, Segeste, and similar terms, so constantly accompanied the Celtic stock, as I set forth in my last paper. The Soxotæ and Systa of Persis; the Astaceni and Socauda of Hyrcania; Issatis, Astasana and Tastache of Parthia; the Isatichæ of Carmania; Asthæa, south of Gedrosia; Asta, Astanda, Astaveni, and Sacastene of Aria; Astacana of Bactria; and Basistis of Sogdiana, are his Persian record. The family of Ezer or Ablezer is exceedingly hard to trace; and it is with diffidence that I present Azara of Media with Tigrana and Tachasara; Agra of Susiana; Gadar of Parthia; Gedrosia itself; Casirota of Aria; and Icarus of Bactria. The names of Mahalah and his mother Hammoleketh or Moleketh, seem to have been frequently associated, and it is hard to say when one and when the other is to be found commemorated in a geographical name containing as its chief elements the letters *M. L.* Such are Amul and Maltai of Media, Melitena of Susiana, and Malana of Gedrosia. The paucity of Mahalah's geographical records may be accounted for by the superior fame of his children. These may be found in Amana, Acola and Dariausa with the Derusici of Media; in Decra of Susiana; the Daritæ of Hyrcania; Dordomana of Parthia;<sup>19</sup> Omœnus and Dara of Carmania; Cocala of Gedrosia; Dammana of Aria; and Dargidus of Bactria. The Daritæ must furnish us with the originals of the Celtic Druids, being the descendants of Darda or Dara, which, in the latter form, with the full power of the Hebrew *ayin* is the Erse Darag, *the oak*. The Persian Dur, *a pearl*, agrees so far with the Hebrew. The Chaldeans and the Daritæ were the early Culdees and Druids; and with the latter the oak has ever been connected, both in the matter of worship and of name. Aristotle, Diogenes Laertius, and other writers associate the Druids with the Persian Magi; and Pliny expressly says that the Druids of Britain so cultivated the magic art that they would appear to have taught it to the Persians.<sup>20</sup>

In regard to mythology, we find two early Persian names resembling that of Zimran. One of these is Kaiomers or Gayomers, who has often been identified with Gomer; and the other is his

<sup>19</sup> The Parthians are also made the descendants of Keturah by Moses of Chorene. Euseb. Chron. Ed. Migne, p. 618.

<sup>20</sup> Plinii H. N. xxx. 4.

descendant, Tahmouras.<sup>21</sup> Mirkhond speaks of the latter as the father of Fars, so that he is thus made to connect with a son of Gillead, for nothing is plainer than that Peresh was the namer of Fars or Persis.<sup>22</sup> But the line of which Kaiomers was the first, was called the Pischdadian, and a son or grandson of that primitive king was Houcheng or Pischdad. The name Pischdad is sufficiently near, with the prefix of the Coptic article, to that of Ishod to make the connection of Kaiomers and Pischdad significant. The statement of Mirkhond, that Houcheng or Pischdad was by some writers supposed to be the same as Mahaleel, may point to an early tradition which united his name with that of his brother Mahalah.<sup>23</sup> It is somewhat remarkable that Pliny should mention among the inventors of magic the Median Apusorus and Zaratus.<sup>24</sup> The name Apusorus is so uncommon that it is pardonable to associate it with Abiezer, and to suggest the possibility that Zaratus may represent his nephew, Darda.

The ancient geography of India contained names that fitly set forth the whole family of Zimran. Such are the Kamarupas, Kimpurusas, Tumburas, Mlechhas, Nishadas, Apsarasas, Mekhalas, Yamunas, Kulakas and Daradas.<sup>25</sup> Already we have found Amares in Bactria on the Indian borders; and farther north on the Jaxartes were Comari. The Moguls and Tartars may have claimed kindred with them, as the descendants of Machalah and Darda. During the classical period, the north-western part of India about the Indus was peopled by the descendants of Zimran. Such were the Astaceni and Malli; and such, in the time of Darius Hystaspes, the Abissares and the Dardæ.<sup>26</sup> Near them dwelt the Glaucae, while farther south the Jomanes or Jumna commemorated Heman, and Agra, situated upon it, was another record of Ezer. In the basin of the Indus we also find Nagara, representing Ezer, and the Soastus with Suatene as traces of Ishod. To the east, in the region of Patna, lay Miyulu or Mithila, the modern name of which, Tirhut, exhibits a replacement of Mahalah by his youngest but most distinguished son. One of the mouths of the Ganges was called Camboricum, and near at hand was Cocala. Above the lower range of the Himalayas, in a

<sup>21</sup> Vide Shah Namch. It is worthy of note that Tahmouras is made the founder of Msdain in Irak Arabi: Geographical works of Sadik Isfabani, Or. Trans. F., 46.

<sup>22</sup> Mirkhond's History of the Early Kings of Persia, translated by David Shea, 134.

<sup>23</sup> Mirkhond, 66.

<sup>24</sup> H. N. xxx. 2.

<sup>25</sup> Muir's Sanscrit Texts.

<sup>26</sup> Lenormant & Chevalier's Manual of the Ancient History of the East, ii. 141.

direct line from Tirlhut, flowed the Dyardanes, and near it dwelt the Aminachæ. South of Amara or Ambra in Central India appeared Mesolia, with another Cocala and, better still, a Caliguris; while Hippocuria Regio seems a mere Hellenized form of the name Abiezer. Comaria and the Tamra river in the south would indicate that the descendants of Zimran had penetrated to the extremity of the peninsula. Mr. Hyde Clarke's valuable *Researches in Prehistoric and Protohistoric Comparative Philology, &c.*, first drew my attention to the Sumerian or Zimrite character of Farther India, including Malaya and Cambodia.<sup>27</sup> This distinguished philologist points out the interesting fact that the Cambodians call themselves Kammeron Khmer, and connects them with the great Sumerian family. He also holds that Malacca and not Britain furnished the supply of tin of which the Sumerians made use from an early period. Samarade in Malaya is a mark of Zimrite occupation, and so are Pagraza, Acadra, Thagora, which may be forms of Abiezer or Ezer; Maleucolon, in which Mahalah or his mother may find a record; Calligicum, a reminiscence of Chalcol; and Tharra, which commemorates Dara.

The regions inhabited by the Zimrites in India were at one time peculiarly Buddhist, especially Miyulu or Mithila.<sup>28</sup> The musical dewæ Timbara, pertaining to Buddhist mythology, may have been Zimran. Ho must certainly have been the Sumuri or Sambara of the Brahminical mythology, which plainly betrays enmity to the Buddhist families. He was slain by Indra.<sup>29</sup> The queen Mallika answers to Hammoleketh, but she is wrongly made the wife of Ajasat or Ishod, instead of his mother.<sup>30</sup> Ajasat, as a wicked king, may be the same as Chetiya, who built Astapura and Daddara.<sup>31</sup> If so, he is improperly called the son of Upachara or his brother Abiezer, and the father of Muchala or Machalah, the youngest of the three sons of Hammoleketh. Mahali, a famous king of Buddhist story, is no doubt the same person as the latter.<sup>32</sup> The ornament Mekhali, which Buddhist writers treat of, will yet be found to connect with similar

<sup>27</sup> *Researches in Prehistoric and Protohistoric Comparative Philology, Mythology and Archæology*, in connection with the Origin of Culture in America, and the Accad or Sumerian Families, 42.

<sup>28</sup> *Hardy's Manual of Buddhism*, 129.

<sup>29</sup> *Wilson's Vishnu Purana*. He must also be Cumara, the god of war, a character that will yet appear to have been borne by two of his descendants. Vide *Crawford's Indian Researches*, ii. 185.

<sup>30</sup> *Hardy*, 285-86.

<sup>31</sup> *Ib.* 128.

<sup>32</sup> *Ib.* 282.

decorations in other lands.<sup>33</sup> The Tirttakas, a religious sect, may have been Darda's descendants, and an early class of Druids.<sup>34</sup> Certain it is that Druids and Buddhists alike held the doctrine of metempsychosis and other beliefs, which have led many writers to associate them equally with the philosopher Pythagoras. The learned Davies has not hesitated to associate Druidism with what he knew of Buddhism.<sup>35</sup>

Following the course adopted in the last paper, we return to the basin of the Tigris and Euphrates. In Chaldea, Zimran was represented by Camarina or Gomereek; his son Abiezer by *Abn-Shahreïn*; and his grandson Darda by Teredon or Diridotis. Babylonia furnishes Thamara, the Nahar Malcha, Issedea, Sittace, Otris, Teredata and Dorista. Assyria is more full, for it was the home of the Sumerians. There we find Sumere, Samaran, Gomara, Saccada or the Sakad of Ptolemy, Aturia, Meso-Pylæ or Mosul, Calchas and Chalachene, Dartha and Dura. In Mesopotamia appear Himeria, Ombra, Semiramidis, Saccada, Auxaris, the Mallii, Achaiakala, Cæcilium, Dura, Dadara, and Daradax. Turning from geographical to mythological and historical evidences, the great Sumerian family seems to exhibit its ancestry in the lists of Bar Hebræus and other chroniclers.<sup>36</sup> There we discover among the earliest monarchs, Nmrud, Cambirus, Smirus or Smirm, Zmarus and Semiramis, setting forth Zimran, unless Nmrud be a form of the name of his uncle Mamre. These must represent the so-called Medians or Midianites, who at an early period ruled in Chaldea. In other lists appear such names as Ascatades, Ephecheres, Mancaleus, replaced by Ascalius and preceded by Mamithus, who may have been Eshcol and Mamre, Mamylyus and Amyntes, who, as Heman, properly succeeds Ascatades.<sup>37</sup> Berosus seems to have known Mahalah in Amelon and Heman in Amenon, his successor, while Darda may have been his Euedoreschus.<sup>38</sup> The uncommon name Chalcol is preserved in full in Khal-khalla, a surname of Nin or Bar.<sup>39</sup> Enyalius will yet appear as

<sup>33</sup> Harly, 281. It was also called Mela, and was a girdle.

<sup>34</sup> *Ib.* 275, &c.

<sup>35</sup> Celtic Researches and British Druids. Vide Higgin's Celtic Druids. Pococke, India in Greece, 102, associates the Druids with Buddhism.

<sup>36</sup> Cory's Ancient Fragments. In support of the Eshcol connection, it is worthy of note that Semiramis was of Ascalon.

<sup>37</sup> Du Pin, Bibliothèque des Historiens, Amsterdam, 211, &c.

<sup>38</sup> Ap. Eusch Chron.

<sup>39</sup> Rawlinson's Herodotus, App. Book I, Essay 10.

a form of the word Mahalah. It is therefore interesting to find Hestæus saying that priests brought his worship into Sennaar of Babylonia.<sup>40</sup> Molis or Mylitta, the great goddess connected with Semiramis, if not identical with her, was undoubtedly Moleketh, the queen and wife of Zimran.<sup>41</sup> Her relations with the worship of Sacti and Vesta are explained by the fact that these names were derived from that of her son, Ishod.<sup>42</sup> The land of Milidia, mentioned in the cuneiform inscriptions, and Milisihu, who appears in Mr. George Smith's list of Babylonian kings near Ulam-Buryas, may easily represent Mahalah, the cousin of the latter's father, Peresh.<sup>43</sup> It is a little striking to find three brothers named Muranu, Gatiya (the Indian Chetiya), and Musalimu, sold as slaves in the reign of Simmasihu, who follows Kurigalzu, the supposed father of Milisihu.<sup>44</sup> This may simply indicate that the names, being those of royal personages, were common at the time, for such names do not belong to later Babylonian history. Usati, the name of the father of the three slaves, is nearer to that of Ishod than Gatiya. Aswad, the name of Akkerkuf, is probably a restored form of Ishod. There is every reason to believe that the Sumerians or Cymri, Chaldeans or Cudees, and Dardæ or Druids, made their first home somewhere near the junction of the Tigris and Euphrates. Marmarus, the Babylonian whom Pliny mentions along with the Medes Apusorus and Zaratus, as an inventor of magic, was probably Mamre, the uncle of Zimran.<sup>45</sup> I am not disposed to heed the unscientific modes of connecting sacred and profane history prevalent in last century. The connection which the Abbe Banier established between Druidical worship and the oaks of Mamre, however, I hold to be worthy of the most serious attention.<sup>46</sup>

If any part of the world possessed a Zimrite population before Chaldea, it was Arabia. Abraham sent his sons by Keturah eastward into the east country, which would embrace these two regions.<sup>47</sup> The Katoorah were a famous people in Arabian history, whom Pliny

<sup>40</sup> Cory's Ancient Fragments.

<sup>41</sup> Rawlinson's Herodotus, i. 131 note, and App., Essay x.

<sup>42</sup> Cox's Aryan Mythology, ii. 117.

<sup>43</sup> Transactions of the Society of Bib. Archaeology, I. 1, 65.

<sup>44</sup> Records of the Past, v. 79, 85 note.

<sup>45</sup> H. N. xxx. 2. Sinuri, a mythical diviner, whose name has been discovered by Mr. George Smith, may have been Zimran. The Chaldean account of Genesis.

<sup>46</sup> The Mythology and Fables of the Ancients explained from History. London, 1740, iii. 224.

<sup>47</sup> Gen. xxv. 6.

knew in his day as the Kataræi, and whose chief settlement was Katara, now called Katura, appearing about midway on the eastern coast.<sup>49</sup> Beginning at the north, however, we find certain features of Hyrcanian geography reproduced, in the Zamareni, with a place Chamara, who appear a short distance south of the Saraceni, just as Samariene and-Syracene connect in Hyrcania. The Chaulothræi, Bene Khalid or Gileadites, with the Agræi or Ezrites, are not far off; while Madiana, farther south, affords another proof of Midianite connection. On the Arabian Gulf of the Red Sea opposite Berenice were situated the Malichæ, Darræ, Ausara and Agra. Lower down on the same side we meet with the Minæi, Mamala, Nagara or Agra, and Amara. The *N* of Nagara arises out of the nasal pronunciation of the initial *ayin* of Ezer, which is found in Arabic. But in the Persian Gulf about Katura, and in a direct line with the home of the Malichæ and Darræ, other Agræi or Gerræi appear, together with Asateni and Sata. In the south-east a galaxy of Zimrite names attest Midianite occupation. Such are Thamar, Saunbracata, Omanitæ, Darræ and Acilla, to which may be added Masthala. Coming further westward, but keeping to the southern coast, Hamirei in the Smyrnophoros Regio commemorate Zimran. The Ascitæ were the descendants of Ishod; the Ausaritæ of Ezer; and Massala was a record of Mahalah. Omana Sinus, south of which Marmatha may have been a reminiscence of Mamre, betrays Heman's posterity, and Cumacalum on the Sachalites Sinus may unite Chalcol with Eshcol. This leads to the great region of the Homeritæ, whom tradition has already identified with the family of Keturah. Among them Theophanes found the Amanitæ, to whom he attributed a similar descent.<sup>49</sup> The rite of circumcision prevailing among these tribes tends to confirm their Abrahamic parentage.<sup>50</sup> In the same region Burckhardt found traces of the Omran Arabs, although their principal settlement according to him was the northern tract in which we found the Zamareni.<sup>51</sup> Omran is an Arabic form of Zimran, exhibiting the same change as the Erse word *Amhran* has already presented. Sacatia, Mela Mons, Ocelis and Thuris in the land of the Homeritæ,

<sup>49</sup> Lenormant & Chevalier, ii. 293 seq. Jervis, *Genesis Elucidated*, 358.

<sup>49</sup> Jervis, 352.

<sup>50</sup> *Ib.*

<sup>51</sup> Notes on the Bedawin, &c., 221. Another Stonehenge was found by Chardin and other travellers at Ujan in Persia: Sadik Isfahani, 9 note. Still another in Phœnicia is described by Finu: *Byeways in Palestine*, 253.

among whom the Abideh or descendants of Abidah, the son of Midian, were found, set forth Ishod, Mahalah, Chalcol and Dara. The Camareni and Malichi Islands off the same coast were memorials of Zimran and his wife. If we suppose Chalcol to have been represented by the Chaulasii, who dwelt towards the northern extremity of the Persian Gulf, we shall find the whole family of Zimran appearing in Arabia as the eponyms of powerful tribes. Such were the Zamareni, Homeritæ or Omran, the Ascitæ, Agræi, Malichæ, Omnitæ, Chaulasii and Dardæ. In Kasseem, south of Jebel Shammar, or in the land of the old Zamareni, Mr. Palgrave found a Druidical circle, identical in character with Stonehenge, the work of Emrys or Ambrosius, who gave its name to Ambresbury in Wiltshire. Concerning it he says: "There is little difference between the stone wonder of Kasseem and that of Wiltshire, except that one is in Arabia and the other, more perfect, in England."<sup>52</sup>

If Strabo's statement, with which the accounts of Arabian historians seem to agree, be true, we cannot expect to find in the lists of early Arabian monarchs that hereditary descent which would enable us to speak positively of their Zimrite relationships.<sup>53</sup> Himyar or Hamyer, however, the greatest of Arab sovereigns and the ancestor of the Homeritæ, like the Persian Kaiomers and the Chaldean Zmarus, must have been Zimran himself. He is called a son of Abd Shems or Saba, and his brothers were Amru, a repetition of his own name, Ashar or Ezer, and Amelah or Mahalah, his sons.<sup>54</sup> Malik was an early king of Oman; and Shammir a descendant of Himyar.<sup>55</sup> The descendants of Amelah are said to have emigrated to Damascus, and there the Trachones, a memorial of Darda, are found, together with a Gerra that may be a record of Ezer.<sup>56</sup> Two modern names, Dummar and Aswad, in the same region may preserve the memory of Zimran and Ishod.

Unlike the family of Gilcad, that of his brother-in-law Zimran seems at some remote epoch to have passed over from Arabia into Ethiopia, and to have dwelt for a time also in certain parts of Egypt. We find them in the Sembritæ of the former country, who were

<sup>52</sup> Travels in Central Arabia, i. 251.

<sup>53</sup> Strab. xvi. 4, 3. He states that the son does not succeed the father, but the first son of a noble family born after his accession to the throne.

<sup>54</sup> Sale's Koran, Genealogical Tables.

<sup>55</sup> Lenormant & Chevalier, ii. 312.

<sup>56</sup> Sale's Koran, chap. xxxiv. note.



governed by a queen.<sup>56</sup> These are the modern Amharas. There dwelt the Agrii, and there we meet with Esar, Tasitia, Mosylon or Mosylicus, Eumenes, Acila, and Darada. Deire, which is said to have denoted "the neck," and thus to have been a Greek word, may have been originally derived from Dar, a *pearl*, a string of pearls forming an ornament for the neck, for it is the *Torque* of the Celts, in whose language *dorc* or *torch* signified a collar or necklace.<sup>57</sup> Although generally of gold, the torques were sometimes composed of amber beads. The Indian ornament Mekhali, the necklace of Manlius Torquatus, the golden collar of the Irish Malachi, serve to unite Mahalah and his son Darda in the invention of this article of dress.<sup>58</sup> Circumcision prevailed among some of these Ethiopian tribes.<sup>59</sup>

The Zimri passed into Lower Egypt, whether by way of Arabia Petraea or upwards from Ethiopia I cannot tell. An early historical notice of the sons of Keturah is given by Josephus, in which he unites them with the Egyptian Hercules, and makes Ephraim, the second son of Midian, the namer of Africa.<sup>60</sup> A part of Zimran's family must have entered the land of the Pharaohs in this migration. Milukhi, a kingdom mentioned in the Assyrian inscriptions, and which Lenormant at first identified with Meroe, the land of the Sembrite, was in the Delta.<sup>61</sup> Metelis and Menelaus, which, according to Aristides, had its origin long before the time of the Lacedemonian hero, doubtless indicate the position of this Mahalite kingdom.<sup>62</sup> Schædia, near at hand, is a perfect representation of Ishod; and two places named Taposiris, in the same region, are in all probability the memorials of Abiezer. Glaucus, near Libya, may unite Chalcol. There was a Deirut between Metelis and Schædia, and a Tarichæa north of the latter city. It is worthy of note that the god Malouli was worshipped at Talmis, in Ethiopia.<sup>63</sup>

The old tradition that Northern Africa was in great part peopled by the Homeritæ is undoubtedly true.<sup>64</sup> It is also true that Celts,

<sup>56</sup> Strab. xvi. 4, 8.

<sup>57</sup> Ib. xvi. 4, 4.

<sup>58</sup> The necklace of Eriphyle is the key to this association of terms and legends, in so far as mythology can afford a key.

<sup>59</sup> Strab. xvi. 4, 5.

<sup>60</sup> Josephus' Ant., i. 15.

<sup>61</sup> Lenormant & Chevalier, i. 394.

<sup>62</sup> Ap. Bryant, Analysis of Ancient Mythology, iv. 315.

<sup>63</sup> Rawlinson's Herodotus, App. Book ii. ch. 3. The authors of the Ancient Universal History mention among the Arab rulers of Egypt, Asmar; Sedeth; Ecros, Hadares, Budesir; Malinus, Malil; Culcan; Darkun. An. U. Hist. ii. 109 seq.

<sup>64</sup> Russell's Connection of Sacred and Profane History, ii. 243.

whom Pritchard calls Cumbrians, were found in the same region.<sup>65</sup> These are alike the Zimri, whose record in Cyrene, Semeros, connects them with the Assyrian Sumerians. A part of the Cymri followed the course pursued by the main body of the Celtic emigrants, and passed into Europe from Asia by the Black Sea, the Sea of Marmora, or the *Ægean*. But a very considerable portion of this family followed the route of the Trojan fugitives in Roman story, and of the Celts who peopled Britain and Ireland, according to their native traditions, that, namely, which lay along the northern coast of Africa from Egypt to Carthage, whence they set sail for Sicily; or to the pillars of Hercules, where they passed over into Spain.<sup>66</sup> Three Cymric tides at different periods thus set in to Europe from Asia and Africa. That which traversed a Greek and Sarmatian area probably became Germanized, and developed the Cimbri of Jutland with other Germanic tribes. These were Asiatic Cymri. The first in point of time of the two African migrations, that which set out from the neighbourhood of Carthage, furnished the Cymric element in the Italian populations, and fused in part with the two other streams from the east and west in *Rhætia* and *Helvetia*. The western migration filled Spain, occupied part of Gaul, and sent colonies into the British Islands. Still another stream, I believe in common with Mr. Hyde Clarke, visited the *Azores*, the *Canary and Cape Verde Islands*, and moved westward into the New World.<sup>67</sup> I propose devoting a separate paper to the Celts in America. To return, however, to the traces of the Cymri in Northern Africa. We have already found Semeros in Cyrene. In the same Libyan region we meet with *Auschitæ*, as in Arabia, with *Nausida*, *Aziris*, *Menelaus*, *Masadalis*, *Ampelus* and *Ampeliotæ*. In Africa and Numidia appear *Zamora*, *Sidetani*, *Pisida*, *Azarath*, *Sizar* or *Usar*, *Sizara*, *Macula*, the *Misulani* and *Machlyes*, *Amuncla*, *Damensii*, *Igilgilis*, *Culeua*, *Culucitanæ*, *Durga*, *Tarychiæ*, *Tritonis*, and a host of similar names. There also the *Mideni* carry out the Midianite connection, that has more than once helped to attest the Keturite origin of the Zimri. Sallust, quoting from the library of *Hiempsal*, states that among the ancient inhabitants of Africa and Numidia there were *Medes*, *Persians* and *Armenians*, who had followed the fortunes of Hercules, and that the

<sup>65</sup> Eastern Origin of the Celtic Nations, 70.

<sup>66</sup> Virgili *Æneid*; Keating's General History of Ireland; Geoffrey of Monmouth's British History; Fordun's Chronicle.

<sup>67</sup> Researches, &c.

name Mede became corrupted into that of Moor.<sup>68</sup> Some ancient tradition must have given rise to such a statement. The Medes of Sallust were no doubt the Midianites, and his Persians the descendants of Peresh, the nephew of Zimran, some of whom I traced to Libya in my last paper. Mauretania was pre-eminently a Zimrite country. Thamarita, Tumarra and Camarata were records of Zimran. The great river Molochath, like the Nahar Malcha of Babylonia, commemorated his wife, whose name is identical with it in form and meaning. Usceta, Sigatha, Sitis, set forth the relations of Ishod's descendants, and the Massæsylii, Malliana, Amilos and Ampelusii, those of Mahalah's progeny to this African province. Asarth, Tigrisis and Tasagora might easily be reminiscences of Ezer. In Mina Heman's name may appear in an abbreviated form; the Chalcorychii mountains should preserve that of Chalcol; and Durdus Mons, the Dryitæ, Daradæ and Dracones, and similar words, recall the name of Darda.

Having taken Palestine virtually as our starting point, and having explored the lands east and west, we now return to it, and pass northward into Phœnicia and Syria. Already we have made an excursus into the neighbourhood of Damascus, in connection with the history of the Banu Amelah. With them we have associated Dummar, Aswad, Gerra and Trachones. There was an Azar also in Syria; and Mahallib and Ampeloessa may have been traces of the Amelah. Amana and Haminea, Trieres and Daradax should relate to Heman and Darda. Turning to the Phœnician history of Sanchoniatho, I am conscious of a wrong identification which I proposed in a former paper. It is that of the hero Demaroon.<sup>69</sup> He was the son of a well beloved concubine of Ouranos, who had been taken from him by Ilus or Cronos. In him we must find Zimran once more appearing, as he has already appeared in the Persian, Chaldean and Arabian histories. The fact that the son of Demaroon was Melcartus, and that Adodus was associated with him, tends to prove this connection.<sup>70</sup> Melcartus is Mahalah, and Adodus probably Ishod. In Melcartus we find an assumption by Mahalah of the name of his mother Moleketh. He is Moloch Mars, Enyalios and Miles, the soldier *par excellence*. The Tamyras river of Phœnicia commemorated Demaroon or Zimran. The mughazils, or phallic monuments of Phœnicia,

<sup>68</sup> Sallustii Bel. Jug. xviii.

<sup>69</sup> The Primitive History of the Ionians, Can. Jour., Nos. 5 and 6, vol. xlv.

<sup>70</sup> Sanchoniatho's Phœnician History by Cumberland, 34, 35.

probably retain a name once given in memory of the youngest son of Hammoleketh to rites characteristic of her worship.<sup>71</sup> The Phœnician colonies indicate that the family of Zimran was once powerful there. Camirus in Rhodes, named after Camirus, the son of the nymph Hegetoria, is undoubtedly a record of Zimran, the son of Keturah.<sup>72</sup> Malta, with its phallic monuments, received its designation from Moleketh or Mylitta.<sup>73</sup> Cossura may have retained the name of Ezer. Melos and Thera can hardly be dissociated from Mahalah and Darda. In Spain Abdera and Malaga, in connection with the Bastitani and Turdetani, also afford traces of Abiezer, Mahalah, Ishod and Darda.

In Armenia we find vestiges of the family of Zimran, as well as of that of Gilead. It contained Zimara, Astacana, Testis, Azora, Molechia and Acilicene. Darda appears to have had no memorials there. The region of Caucasus, besides the Cimmerii upon its borders, furnishes Sioda of Albania, Seumara and Vasæda of Iberia, Absarus and Mechlessus of Colchis. In the Glaucus river, the Cilici of Colchis, Colchis itself and the Tarsura, we may discover footprints of Chalcol and Darda. Madia, like Motene of Armenia and similar names elsewhere, keeps us in mind of Midian's relationship with Zimran.<sup>74</sup> Pontus, in Pimolisa, Megalopolis and Collucia, perhaps exhibits the marks of occupation by Mahalah's and his son Chalcol's descendants. Cappadocia, so rich in Gileadite names, was not altogether destitute of the records of Zimran's line. There we find Imbarus and Sinoria, the Scydices Mountains, Aziris, Melitene, two rivers named Melas, Eumeis, Gaolasera and ad Dracones. Cilicia was pre-eminently a Gileadite habitat. There Zimran's name survived in Coimoris. Posidium, built, according to tradition, by Amphiloclus, and Mallus, which contained his oracle, together with Melania and Mylæ, show that Ishod and Mahalah went hand in hand.<sup>75</sup> The family of Heman appears prominently in the Amanides and Homonadenses. Amphiloclus, as the namer of Mallus, was undoubtedly Mahalah, and his father Amphiarus, Zimran. At Mallus Calchas was associated with Amphiloclus, and he was his second son Chal-

<sup>71</sup> Lenormant & Chevalier, ii. 230.

<sup>72</sup> Diad. Sic., v. 35.

<sup>73</sup> Lenormant & Chevalier, ii. 230.

<sup>74</sup> The circumcision of the Colchians and some of the neighbouring tribes in Asia Minor may have been an indication of their Abrahamic ancestry. There were circumcised tribes in Thrace.

<sup>75</sup> Herodot. iii. 91; Strab. xiv. 5, 16.

col.<sup>75</sup> Pococke has well set forth that the name Calchas and all the associations of that hero point him out as a Buddhist priest.<sup>76</sup> The character for wisdom and the skill in gnomie poetry attributed to Amphiarus, Amphiloehus, Calchas and Tiresias, clearly indicate that in their history the Greek writers preserved part of the story of Zimran, Mahalah, Chalcol and Darda.<sup>77</sup> In Paphlagonia, the same family appears. Gazora reproduces Ezer; Timoleun, Mahalah; Domanitis, Timonitis and the Amnias, Heman; and Callichorus, Chalcol. Galatia recalls Ishod in Vasada; and it will be remembered that Josephus unites Galatia with Gomer. Phrygia presents us with Thymbrium and Amorium, Isauria and Achara, Melissa, Nacoleia and Philomelium, which is Abel Meholah, Eumenia, Glaucus and Cillexuga, Trogitis and Tyriæum. Midæum once more connects the Midianites. Bithynia, a settlement of Bedan, shows that Celt and Cymri rarely parted company. Thymbrius and Smyrdiana, Astacenus, Astacus or Nicomedia, Posidæum, Aminias and Callica give Zimran, Ishod and the two elder sons of Mahalah. Thymbrius in Pisidia and Chimæra in Lycia are alike memorials of Zimran. Pisidia, Isauria and Milyas in proximity, were tracts bearing the names of his three sons.<sup>78</sup> As Herodotus informs us that the Pamphylians were the people of Amphiloehus and Calchas, we must find in Pamphylia the name Mahalah, with the prefix of the Coptic article.<sup>78</sup> Amblada in Pisidia and Melas in Pamphylia are other forms of the same name. In addition to Pisidia itself, which precedes Ishod with the Coptic article also, he was celebrated in Side of Pamphylia and Isonda of Lycia. The Agrioteri palus of Pisidia may be added to Isauria as a record of Ezer. Hanona and Darsa in Pisidia, with the Glaucus of Lycia, perfect the Zimrite record in Heman, Chalcol and Darda.

In Caria, Zimran, Ishod and Mahalah are found as Thymbria, Pystus, Posidium, Miletus and Mylasa. In Lydia, Smyrna, near which ran the Meles and to the back of which rose Tmolus, has been identified by Mr. Hyde Clarke as a Sumerian city.<sup>79</sup> Ephesus also was called Samornia, deriving its chief name doubtless from Ephah,

<sup>75</sup> Strab. xiv. 1, 27.

<sup>76</sup> India in Greece, 249.

<sup>77</sup> Banier, iv. 204.

<sup>78</sup> The Milyæ, or descendants of Mahalah, were Lycians, as belonging to the family of Lechem; and Solymi, since Salma was the head of that house. Beth Millo in Shechem, where a Shalem was found, may have been an early tribe of Milyæ.

<sup>78</sup> Herodot. vii. 91.

<sup>79</sup> Researches, &c., 43.

the eldest son of Midian. Thymbrae was another memorial of Zimran. There likewise appear Melæna, Mycale and Ampelus. Mysia contained a Cimmeris, a Thymbris and a Thymbrium. Mallus reproduces a feature in the nomenclature of Cilicia. Callicolona, Troas and Tragasæ set forth Chalcol and Darda. The Tragasæan salt pan recalls the Tarichæas of Palestine and Africa, which were pickling stations, and, taken together with the supposed meaning of Malaga as the town of salt and the occupation of its inhabitants, suggests an association of Mahalah and Darda.<sup>80</sup> Lydian history affords valuable aid in the work of identification. In the time of Atys, the Lydians, compelled by famine, emigrated from Smyrna to Umbria, thus carrying with them their Zimrite name.<sup>81</sup> Meles and Tmolus appear in different lists as Lydian kings.<sup>82</sup> They are the same person, who is Mahalah. An obscure narration concerning Tmolus, taken in connection with similar stories that will yet meet us, confirm this statement. The Abbe Banier says: "Tmolus, King of Lydia, if we may credit Clytophon, was the son of the god Mars and the nymph Theogena, and, according to Eustathius, of Sipylus and Eptonia. One day as that prince was hunting, he perceived one of Diana's companions who was named Arriphe. The king, bent on gratifying his passions, eagerly pursued that young nymph, who, that she might not fall into his hands, thought to find a sanctuary in the temple of Diana. Arriphe was violated at the feet of the altar. So cruel an outrage plunged her into the deepest anguish, and she would not survive the misery that had befallen her. The gods did not allow her death to be unpunished. Tmolus, carried off by a bull, fell upon stakes, whose points ran into him and made him expire in the most exquisite pain. Thus perished that prince, who was buried upon the mountain that went afterwards by his name."<sup>83</sup> It is in Palestine, at Abel Meholah, or in Chaldea, that we must find the scene of this tragical, and, as will yet appear, oft repeated story. The Lydian dynasty of the Mermnadæ, and Ascalus, connected with the early history of that kingdom, illustrate the relations of Zimran with Eshcol and Mamre.<sup>84</sup> Claros, in the same country, relates to the story of Amphiloehus and Calchas.<sup>85</sup> The most remarkable feature in Lydian history, however, is that which

<sup>80</sup> *Author's Class. Dict., Tarichæa; Strab. xiii. 1, 48; Lenormant & Chevallier, il. 178.*

<sup>81</sup> *Herodot. i. 94.*

<sup>82</sup> *Rawlinson's Herodotus, App. Book i., Essay 1. Apollodorus ii. 6, 3.*

<sup>83</sup> *Banier ii. 404.*

<sup>84</sup> *Vide note 82, and compare note 99.*

<sup>85</sup> *Strab. xiv. 1, 27.*

connects with the poet Homer. Chios, lying off the coast of Lydia, possessed a class of men called *Homeridæ*.<sup>66</sup> They were singers, and I cannot but think that their name is the old word *Zimran* or *Amhran*, *the song*. Ilgon gives such a meaning to the name Homer itself.<sup>67</sup> Smyrna laid claim to be his birth-place, and undoubtedly *Zimran's* descendants named that city. But the names of *Zimran* and his son *Mahalah* are constantly found in the genealogies of the blind poet. Thus he is called the son of the Smyranean river god *Moles*. His mother again is the daughter of *Menapulus* and a daughter of *Omyretis*, or of *Theseus*, the son of *Eumeles*, and a nymph *Smyrna*. Her name *Critheis* is like the Scandinavian *Gerda*, the daughter of *Gymir*. In another *Æt*, *Mæon* of Lydia, whose name may have been the same as *Heman*, was his father. It is remarkable that *Hesiod* is made a nephew of *Mæon*, bearing, as the name does, such a close resemblance to *Ishod*. *Perses* also, the brother of *Hesiod*, is identical in form with *Peresh*, the cousin of *Ishod*.<sup>68</sup> I do not by any means assert that Homer was *Zimran*, or even that *Mahalah* or *Heman* was his father, but these names must indicate that the great poet was a *Zimrite*. It is also very probable that he never saw Asia Minor, and that the scenes and peoples he sang of were to be found somewhere between Palestine and Arabia, Egypt and Babylonia, where all the names he mentions may be discovered in a truer Homeric order and of a more thoroughly Homeric character than in Asia Minor and Greece.<sup>69</sup> *Ishod* can hardly fail to have been the old *Æsycetes*, whose

<sup>66</sup> Pindar *Ap.* Strab. xiv. 1, 35.

Athenæus also refers to the *Homeridæ*. The song *Nomium*, which he connects with *Eriphanis*, the mistress of *Menalcas* the hunter, and the refrain of which was "the tall oaks," may have arisen out of the story of *Heman*, *Eriphyle* and *Mahalah*, with *Darda*, the man of the oak. Athen. xiv. 11. According to *Pausanias*, two persons named *Melan* were early colonists of *Chios*, vil. 4.

<sup>67</sup> Anthon's *Class. Dict.*, *Homerus*.

<sup>68</sup> *ib.*

<sup>69</sup> I do not consider that the researches of *Dr. Schliemann*, although of great historic value, by any means establish the fact that the *Troade* was the scene of the *Trojan war*. *Strabo* (I., li. 22) tries to meet the objections of those who affirmed that *Homer* knew *Egypt*, *Syria* and other regions better than *Greece*. Again (XII., iii. 26, 27) he specifies many places intimately connected with the *Troade* which *Homer* does not mention. The *Egyptian priests*, according to *Dion Chrysostom*, had a version of the war of *Troy* different from that of *Homer*. We find *Memnon*, the *Ethiopian* or *Susian*, appearing as one of its heroes. *Egypt* is visited by *Menelaus* and other of the *Greeks*. *Northern Africa* is the course of the *Trojan fugitives*. *Paris* carries *Helen* to *Sidon*. *Mr. Gladstone* shows that according to *Homer* the *Phœnicians* were a border people on the north-west instead of on the south-east. *Menestheus*, in whose time the war was occurred, was the son of *Petes*, an *Egyptian*. *Diodorus Siculus* connects the knowledge of *Homer* with *Egypt*. We have no indications that any states existed in *Asia Minor* so early as the period of the *Trojan war*, which *Pliny* places in the time of *Rameses III.*, *Manetho* in that

tomb was supposed to be in the Troade.<sup>20</sup> Molion, the charioteer of the Trojan Thymbraeus, presents an interesting union of Zimrite names; and Caria long retained a love for that of Mahalah.<sup>21</sup> If the Cimmerians and Treres overran this part of Asia Minor during the historical period, it must have been, like the Galatians, to regain a former home.

Passing over into Europe, Thrace first engages our attention. Ismarus, Himærium and Tempyra preserved the name of Zimran; Sestos, Sathæ and Astica that of Ishod; Abdera, Agora and the Agræanes that of Abiezer or Ezer; and Melas, Ampelus and Naucleus those of Mahalah and Moleketh. Darda finds many memorials, as in the Dorsæi, Treres, Doriscus, Drys, Tirizis, Tyrodiza, &c.; and it is possible that the very name Thracia came from the form Darag. It is true that the name Zamolxis is not very like Mahalah, yet as he is called the teacher of transmigration to the Druids, and as a god of the Thracians, I incline to the belief that they are the same person.<sup>22</sup> Thamyris, the blind Thracian bard, unites the character of Zimran and the Homeridæ with a name like that of the Phœnician Demaroon or Baal-Thamar.<sup>23</sup> Macedonia contained comparatively few Zimrite names, for Giladites occupied a great part of the country. Still Combræa, Satis, Schiate, Pissantani and Ægestea, Abderites and Agræanes, Æmonia and Derrhis appear as records of Zimran, Ishod, Ezer, Heman and Dara. What is wanting in Macedonia, Thessaly supplies. Zimran lives in Amyrus, Ambryus and Chimærium; Ishod in Hestireotis, Phæstus and Scinthos off the Thessalian coast; Ezer in Azorus; Mahalah in Melia, Mallæa, Milæ, Melas, Homolium and other places; Heman in Æmouia; Chalcol in Cæchalia, Ioleos, Igliaeo; and Darda in Tricca, Titarus, Titaresius, Dyras and the Dryopes. The Melian territory of Thessaly was possessed at an early period by

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of Thothes III., others in the time of Moses, and Mr. Gladstone long before 1200 B.C., when Sidon was destroyed. The Lycians, Mysians, Dardanians and other peoples who afterwards settled in Asia Minor, were at that period found in Palestine warring with the Hittites against Egyptian supremacy. We must look for the old Ilium not in the Troade but in Palestine, the scene of nearly all the wars of the same age, and must connect it with the declension of the Egyptian monarchy. The topography of the Troade is far from according with that of the Homeric poems, and Mr. Gladstone is justified in stating that the old poet was all astray in his geography, if any point in Asia Minor be the scene of his epics, or the stand-point from which he surveyed the world.

<sup>20</sup> *Iliad*, ii. 793.

<sup>21</sup> *Ib.* xi. 320-2. Strab. xiv. 2, 13, &c., gives Malaca, Melon, Meneles, Mausolus, &c.

<sup>22</sup> Malo-zimalka in Babylonia, which I have already connected with Hammoleketh or Mahalah, is a form that might give us Zamolxis. In this case Mahalah would take his mother's name.

<sup>23</sup> Philammon, the father of Thamyris, links him with the family of Bethlehem, with which Zimran was united through his wife. Demaratus, the Zimran of Etruria, was a Lucumo or man of Beth-Lechem, and Vetulonii sets forth the whole Hebrew name.



Eumelus, who is called the son of Admetus, but who is also made an ancestor of Homer.<sup>91</sup> Melia and Meles indicate, as does Mallus in the case of Amphiloehus, something of the true form of his name. The Dryades, whose appellation has always been connected with the oak, are called Meliadæ, and belonged to Melia of Trachis.<sup>92</sup> The story of Thamyris the Thracian relates to Œchalia and Tricca. Hesticeotis was a famous Doric region, and from it descended the Dymanes and Pamphylians.<sup>93</sup> I can hardly think that the Dorians were of Darda, although the memorials of the *Zimri* are to be found largely in Doric areas, and the love of swine was common to Dorians and Druids. Dymanes and Pamphylians, representing Heman and Mahalah, are called descendants of Ægimius, whom I have elsewhere identified with the early Persian Achæmenes and with Ochime, the husband of Hegetoria, from whom came Camirus.<sup>94</sup> This personage is Achumai the Horite, whom I have already made the real head of the Dorian line. He was, I think, the father of Zerach, who married Keturah after the death of Abraham.<sup>95</sup> Zerach will thus be the head of the Zorathites or Dorians, of whom the mythic King Ægimius was the ancestor. The Myrmidons of Æmonia, like the Merminadæ of Lydia, connect the family of Mamro. As Asciamus, the Lydian king who sent Ascalus to found Ascalon, has been shown by me to be the same as Achumai, Achæmenes, Ægimius and Ochime, we properly find him synchronizing with the family to which Zimran belonged.<sup>96</sup> Epirus is far from deficient in traces of the Cymri. Such

<sup>91</sup> Strab. ix. 5.

<sup>92</sup> Soph. Phil. 725.

<sup>93</sup> Herodot. i. 55. Müller's Dorians, ii. 76.

<sup>94</sup> The Horites, *Canad. Journal*, Vol. xlii. No. 6.

<sup>95</sup> As I have identified Achumai with Egyptus, we must find in Zerach, or, as his name would be in Greek, K-erak, the Cercestes who is called his son. He is also the Egyptian god Harka united with Khem, and, better still, the son of Amenemes the namer of Coptos, whom Mr. Osburn gives as Cherucheres. Amenemes, the son and successor of Achthoes, is Achumai, the son of Jachath.

<sup>96</sup> Since Ascalus or Eshcol was a general, or, at any rate, a tributary of Achumai, Aciamus or Amenemes, it is not surprising that the son of the latter should marry Keturah after the death of Abraham, seeing that she was Eshcol's sister. An important Egyptian date is afforded us in the association of these names, by which we are able to arrive at the period when Egyptian monarchy began and at the same time its mythology.

about 2000 B.C. Shohal, Seb or Sebek

about 1900 B.C. Reziath or Ra

about 1820 B.C. Jachath or Actoes

about 1850 B.C. Achumai or Kames

about 1850 B.C. Zerach or Cherucheres = Keturah or Hegetoria

Ethan

The Arabian historians make Ascalus a man of Ludim. Lahad or Lydas was the brother of Achumai. 1 Chron. iv. 2

are Chimærium, the Chimærian promontory, Comarus, Tomarus,<sup>99</sup> and, better still, Ambracia, a state founded by Torgus.<sup>100</sup> Posidium, Issoria, the Molossi and Omphalium were probably named after the three sons of Zimran, and the Amyntæ after Heman. The story of Milo, who slew Laodamia in the temple of Diana, where she had taken refuge—through whom a curse fell upon the whole of Epirus; and who, seized with anguish, tore out his own bowels and died in extreme agony on the twelfth day after the murder—bears a very close resemblance to that already narrated concerning Tmolus.<sup>101</sup> More light may thus be shed on the meaning of Abel Meholah. Acarnunia contained an Astacus, which may have commemorated Ishod. Ætolia is a supplement of Epirus. On the borders of Ambracia, the land of Zimran, appears Amphilochia, founded by Amphilocheus or Mahalah.<sup>102</sup> There also we find Thestia, the Agræi and Acææ, the Dymæi and Cæhalia. The stories of Tmolus and Milo are reproduced in that of Meilanion and Atalanta, the scene of which is laid in Calydon, the Gilcad of Greece, unless we are to transfer it to Arcadia, the home of Atalanta's father. While Meilanion and she were hunting together, they profaned the sacred enclosure of Jove with their love, and for this offence were metamorphosed into lions.<sup>103</sup> Meilanion can hardly be a different person from Meleager, whose history is more closely linked with that of Atalanta, and who was of Calydon. Meleager is made a son of Cæneus or of Mars; and Thireus his brother, like Dryas and Tereus, other sons of Mars, recalls the name of Dara, the son of Mahalah. He perished under a curse, that of his mother Althæa, who may be Alitta or Mylitta. Amphiarus and Thestius connect with his history.<sup>104</sup> Ino Leucothœ, the Colchian goddess, wife of Athamas and mother of Melicerta, is more like a form of Hammoleketh.<sup>105</sup> Athamas I have associated with Etam or Abi-Etam, who named Etham in Egypt and Arabia.<sup>106</sup> As Abi-Etam

<sup>99</sup> Tomarus and the oaks of Dodona are associated. The Tomuri were diviners. Strab. vii. 7, 11.

<sup>100</sup> Strab. vii. 7, 6.

<sup>101</sup> Justin. xxviii. 3.

<sup>102</sup> Strab. x. 2, 26.

<sup>103</sup> Vide authorities in Anthon's Class. Dict., Atalanta. A similar story meets us in Arabian tradition, where we learn that Asaf, the son of Amru, and Nayelah, the daughter of Sahal, were for a like offence converted into stone. Sale's Koran, P. D.

<sup>104</sup> Apollodorus, i. 8. Pausan. x. 31, 3.

<sup>105</sup> Apollodorus, i. 9. Atalanta is made a daughter of Schœnus, the son of Athamas, thus confirming the association of names. Melas was a son of Phryxus, another son of Athamas.

<sup>106</sup> The Coptic Element in Languages of the Indo-European Family, Canad. Journal, Vol. xiii., Nos. 4 and 5.

he furnishes the name Amphidamas, which is that of the father of Meilanion, and as Etam, Admetus, that of the father of Eumelus, who also is made Mahalah. Etam had no such son, his eldest born being Jezreel. Hammoleketh was not of his family; so I come to the conclusion that Mahalah was his connection by marriage, an hypothesis which another legend, the scene of which is laid in Achaia, confirms.<sup>107</sup> In Locris, the geographical names Phæstus and Tritæa probably refer to Ishod and Darda. There we find that certain Theoi Meilichioi were worshipped, and these Bryant derives from the Semitic Melek.<sup>108</sup> Phocis furnishes Ambrysus, Tegyra, Amphiclea, Hyampolis, Callichorus and Tritia.<sup>109</sup> In Homer we find Schedius as a Phocian name.<sup>109</sup> The Phocian colonies also had Zimrite names, and, in particular, Massilia in Gaul, which was called after Mahalah. In Bœotia, Amphiarus had a place dedicated to his worship; and Agra, Mycalessus, Hæmon and Ocalea commemorated two of his sons and an equal number of his grandsons.

In Attica, the descendants of Darda were pre-eminent, exhibiting their traces in Thria, Thoreæ, Thoricus and Deriades. But Amphiarus had a sanctuary there; Agra and Achare were memorials of Ezer; and Amphiale and Melæne of Mahalah. Zeus Meilichios was also worshipped in Attica.<sup>110</sup> With Attica, Ægina must be associated. Thence came the Myrmidons, whom I have already asserted to be the progeny of the Amorite Mamre. Myrmidon himself is confounded with his nephew Zimran, for Pisidice, a name derived from Ishod, is made his wife, and Actor or Ezer his son.<sup>111</sup> Actor married Molione, a name recalling Mahalah, and among his sons were Menœtius and Echeclus.<sup>112</sup> The latter is plainly Chalcol his nephew, and the former Meonothai, whom, in the commencement of this paper, I asserted to be the son of Ezer. Menœtius married a certain Sthenele, who should be Hathath, the daughter of Othniel, with whom Meonothai is thus united in the book of Chronicles.<sup>112</sup> Argos

<sup>107</sup> Vide Note 118.

<sup>108</sup> Pausan. x. 38. Analysis of Ancient Mythology, i. 87.

<sup>109</sup> At Ambryssus Dictynna was worshipped, and near at hand was Medea. These names set forth Zimran, Jokshan, the nets, and Midian.

<sup>110</sup> Iliad, ii. 517, xv. 516.

<sup>111</sup> Pausan. i. 37.

<sup>112</sup> These Myrmidons were connected also with Æmonia in Thessaly.

<sup>113</sup> Actor is also made to have married Ægina, thus keeping up the nominal connection. Æginetas also appears among the descendants of Amyclas or Mahalah. Paus. vii. 18.

<sup>114</sup> 1 Chron. iv. 13, 14. Sthenelus is the Greek form of Othniel, the first letter of which is an *ayin*. Menœtius is also made the son of Ceuthonymus, which is a corruption of the Septuagint name for Othniel, Godoniel. For the geographical connections of Meonothai and Opurah his son, see the end of this paper.

exhibits few geographical traces of the Cymri. Zeus Meilichios, however, was worshipped within its borders; and Umbilicus, near Phlius, which contained a place sacred to Amphiarus, may have been a corruption of Amphiloehus.<sup>113</sup> Epidaurus may be a record of Abishur; the rivers Sythæ of Ishod; and Thyrea of Dara. Argolis is famous as the supposed home of Amphiarus. His reputed father Oicles may have been Eshcol his uncle, and his son Amphiloehus, as naming Mallus and similar places, should represent Mahalah. Alemæon was made another son of Amphiarus.<sup>114</sup> This name must relate to the family of Hammoleketh, which I have already intimated was that of Beth-Lechem, o. the Arabian Lakm and Lokman and the Indian Lakshman. With it also the Etruscan Lucumo is connected. Tiresias and Calchas, intimately associated with Amphiarus and Amphiloehus, and, like them, famous soothsayers and poets, point to Chalcid and Darda, two wise men who were thought worthy of comparison with Solomon.<sup>115</sup> Batou, the charioteer and relative of Amphiarus, must be Bedan, the grandson of Peresh, the nephew of Zimran.<sup>116</sup> His wife Eriphyle seems to exhibit a confusion of Zimran with Mahalah, for he was the violator of Arriphe; and the famous necklace of Eriphyle is the Indian Mekhali, the collar of Malachi, the torque of Manlius Torquatus.<sup>117</sup> A curse rests upon Alemæon, similar to that which fell upon Tmolus, Milo, Meilanion and Meleager. The relation of Meleager to CENEUS may find an illustration in the flight of Alemæon to the CENIADÆ. The Zimrite names *Megacles* and *Hippocrates*, forms of Mahalah and Abiezer, belonged to the Alemæonidæ. It was Megacles that directed the slaughter of Cylon and his companions, who at Athens had risen in rebellion against the legal code of Draco, and who, having fled for refuge to the sanctuary of the Eumenides, were slain at the altars.<sup>118</sup> The name Megacles, the Alemæonid connection, the profanation of the temple, and the curse which followed it, seem to refer us to the ancient story which already five times has appeared in relation to

<sup>113</sup> Pausan. ii. 20.

<sup>114</sup> It is probable that Alemæon is but another name of Mahalah, derived from his mother's family.

<sup>115</sup> Chariclo, the mother of Tiresias, bears a Euriglaru or Jezreel-like name.

<sup>116</sup> Pausan. x. 10.

<sup>117</sup> For the connection of Eriphyle with Hammoleketh see note 147. Mylitta or Beltis was sometimes made "the Lady of Arbela," and Harpalus is called the son of Amyclas. Eriphyle, Hierophyle, Arbela and Harpalus are the same word.

<sup>118</sup> Herodot. v. 71. Vide Rawlinson's notes in loc.

persons who have links of union with Mahalah. Amphiarus disappeared from view, we are told, at Oropus in Attica.<sup>117</sup> I do not as yet understand why this name is associated with his, but have found similar geographical terms accompanying the wanderings of Zimran's family.

On the Isthmus, Ægosthene and Minoa of Megaris; Amphiarus, Icaria and Molychium of Corinth; and Derus of Sicyon may have been traces of the Cymri.<sup>117\*</sup> Achaia contained Ægira, a record of Ezer, and Melas, with perhaps Megalopolis, commemorating Mahalah. I need not apologize for supposing that names thoroughly Greek in structure, and bearing well defined Greek meanings, may have been manufactured out of Zimrite materials. The rage for etymologies prevailed among the Greeks, and every proper name that was susceptible of a Hellenic form and signification was tortured into these. The same process which fabricated Tarry Hut out of Terre Haute, in Indiana, could easily, in more ancient days, transform Mahalah into Megale, and explain Mycale as Mygale, *the shrew-mouse*. What renders this probable is, that a river Milichus or Ameilichos, reproducing the Malcha of Babylonia and the Molochath of Mauretania, flowed through part of Northern Achaia into the Corinthian Gulf. According to Pausanias, this river received its name from the adventure of Melanippus and Comætho in its neighbourhood.<sup>118</sup> Melanippus, the son of Mars and Tritia, and Comætho, the daughter of Pterelaus, who was a priestess of Diana, satisfied their love in the temple of that goddess. A curse accordingly fell upon the country, and the guilty parties were immolated at Diana's shrine. This is the third time that a similar act of sacrilege in connection with Diana's worship has come before us, associated with a name which more or less resembles that of Mahalah, and the seventh in which a similar name has been identified with sacrilege and a curse. Tmolus and Meleager, like Melanippus, were called sons of Mars, and Milo was one of the names of that god. Tritia also, as a form of Darda, is a Mahalite appellation. The fathers of this or of other Melanippi are given as Astacus, Hicetaon and Agrius, names which recall Ishod and Ezer. I have already

<sup>117</sup> Pausan. i. 34.

<sup>117\*</sup> Phœstus, King of Sicyon, may have been Ishod, and his son Rhopalus, the person from whom Arbela, Eriphyle, &c., derived their names, as well as Beth Arbel in Palestine. Ishod was Hammoleteth's eldest son.

<sup>118</sup> Paus. vii. 19.

given reasons for supposing that Mahalah married into the family of Etam or Abi-Etam, whom I identified with Athamas and Amphidamas. The eldest son of Etam was Jezreel, or Jezregel if the power of the medial *ayin* is made prominent. With the prefix of the Coptic article, Jezreel becomes Pterelaus, and he was the father of Comætho.<sup>119</sup> But, as I have stated in a previous paper, the Chaldean Jezregel was Kurigalzu, and he, by Mr. George Smith, is made the father of the Babylonian Milisihu.<sup>120</sup> I am justified, therefore, in believing that, when the history of Milisihu is recovered from the tablets, the tragical story of Mahalah will appear to the world as the original of all the legends concerning Melcartus, Melicerta, Meleager, Meilanion, Milo, Tmolus, Megacles, Amphiloehus and Melanippus.<sup>120\*</sup> Glaucus and Tritæa, in Achaia, add Chalcol and Darda to the other Zimrite traces of that state.<sup>120†</sup>

Arcadia evidently at some time had a Cymric population. They left behind them Sciathus, Asæatis and Acidus, Agra, Amilus, *Malæa*, *Malæna*, *Molossus* and *Megalopolis*, *Æmonia*, *Aminius*, *Æchalia* and *Calliæ*, *Trachys* and *Thyreum*. *Thamyris* was associated with the *Æchalia* of Arcadia as well as with that of Thessaly, or, in other words, both of these reproductions of an ancient seat of the Zimri in the East preserved the memory of the ancestral poet and sage. The name of Heman appears in Arcadia as *Euæmon*, who is called a son of *Lycaon* or *Beth-Lechem*. I have already drawn attention to the remarkable Greek word *Epikouros*, meaning, like *Abiezer*, *the helper*, while it bears to it a close resemblance in form. The Latin *Ajutor* presents also a perfect transliteration of *Jaazer* in *Gilead*. *Apollo Epikouros* was worshipped in the neighbourhood of *Phigalia*, and he was honoured with the sacrifice of a boar on *Mount Lycæus*.<sup>121</sup> The Arcadian *Orchomenos* has many links to unite it with that of *Boeotia*, and the Actors who are associated with its history are *Ezers* of the *Zimri*. *Elis* contributes *Pisatis*, another *Pisidia*, *Acidon*, *Omphalium* and *Amphidoli*, *Scollis* and *Dorium*. Another *Æchalia* and another *Dorium*, with *Thuria*, in *Messenia*, illustrate the story of *Thamyris*. *Laconia*, a *Doric*

<sup>119</sup> Apollodori ii., iv. 5, viii. 1.

<sup>120</sup> Records of the Past, v. 85 note. The Primitive History of the Ionians. Canad. Journal, Vol. xiv., Nos. 5 and 6.

<sup>120\*</sup> Is it possible that the name of Mahalah connects with the Pictish *Meillochon*, meaning the seducer of virgins. Jamieson's Scottish Dictionary, Dissertation.

<sup>120†</sup> Eumelus once more appears in connection with Glaucus. Paus., vii. 18.

<sup>121</sup> Pausan. viii. 41.

state, affords some of the best exemplifications of the constancy of proper names. Such are Scotitas, Acræ, Mesola, Malæa, Menelaus, Amyclæ, Œchalia, Ægila, Derrhium and Thyrides; while Cythera, off Malea, represents a memorial of Keturah. Laconia was the land of Beth-Lechem. Amyclas himself was Mahalah; his brother Cleocharis should have been his son Chalcol; and Deritus, his son, is Darda.<sup>122</sup> At Sparta Enyalios and Amphiloehus had statues; and at Therapne there was a temple of Mars Therita.<sup>123</sup> Amphiaraus also was worshipped at Sparta. Eumelus and Tyrtæus, as Spartan poets, must have belonged to the Homeridæ. Mr. Cox has drawn attention to the parallel which the story of Agamemnon, the brother of Menelaus, presents to that of Amphiaraus.<sup>124</sup> The wife of the hero in either case was slain by his sons, and the relation of Amphiaraus to the Tyndaridæ seems to suggest, along with the appearance of such an Ishod-like name as Ægisthus in the story, that a confusion of legends pertaining to the Zimrite family had taken place in the Spartan mythology. The family of Agamemnon at least fell under a curse similar to that which has already so often been associated with a name akin to that of Mahalah. Zaleucus, the Doric law-giver, connecting with Draco, and who has been supposed to have relations with Pythagoras and Zamolxis, may have been Chalcol. Mr. Cox unites him with Horatius Cocles, the Cyclopes, Oxylus, and other one-eyed heroes.<sup>125</sup> As he also connects them with the Scandinavian Mimir, I incline to the belief that Eshcol and Mamre are the originals of all the fables concerning these heroes.

Turning to the islands of the Levant, Cyprus, which had intimate relation with Phœnicia, maintained a priestly class of Tamyrads; and its geographical names, Golgoi and Treta, may have had for their originals Chalcol and Darda.<sup>126</sup> Crete contained almost all the names; Cimaros, Camara, Phaestus, Aptera, Metallum, Amyclæum, Omphalia, Ampelus, perhaps Amphimalla, Minoa, Tarrha and Tityrus. In Crete lived the ancient king Melisseus, whose daughter, Amalthea, may easily have been a Mylitta or Hammoleketh.<sup>127</sup> Her horn,

<sup>122</sup> Pausan. vii. 18.

<sup>123</sup> Ib. iii. 19.

<sup>124</sup> Aryan Mythology, ii. 189.

<sup>125</sup> Ib. ii. 72, 88, 183. I find no reference that the union of the one-eyed heroes to whom Mr. Cox frequently alludes has been made by myself, unless it be that I have overlooked the passage in which it occurs. Mr. Cox, however, notices the monocular character of all the persons mentioned.

<sup>126</sup> Guignaut, Religions de l'Antiquité, ii. 211, 1021.

<sup>127</sup> Dioc. Sic., v. 70.

according to Mr. Cox, connects with India in the cup of the Malce's wife.<sup>128</sup> Eubœa had Amarynthus, Hestiaea, Tamynæ, Œchalia and Trycha. It was from Hestiaea that Amphiclus went to Chios, where he is said to have reigned after Œnopion.<sup>129</sup> Amphiclea of Phocis contained an oracle of Bacchus. The Amycleans claimed kindred with the people of Imbros and Lemnos. The latter island, like Linnæ in Laconia, may have been an abode of the Hemanites, since Hitzig supposes that Eiamene is the root of the name.<sup>130</sup> Lasharon and Leophras, the Greek Laphria and Leucophrys, are two Palestinian forms illustrating such a prefix.<sup>131</sup> Lemnos was famous for the extinct volcano Moschylus. Imbros, with its deity Imbramus and port Naulochus, was a Zimrite island. Lesbos contained a Malca. Zimran and his son Mahalah were commemorated in Samos, which Tembrion colonized, and where Imbrasus, Ampelus and Amphilissus appeared.<sup>132</sup> Melos and Thera I have already associated with Mahalah and Darda. In Rhodes we find Camirus, and the person of that name, as the grandson of Ochime and Hegetoria, I have identified with Zimran, the son of Keturah. His father, Cercaphus, must be Zerach or Kerak, whom I have supposed to be the son of Achumai and stepfather of Zimran.<sup>133</sup>

The great Sarmatian territory contained the Cimmerians, or early Cymri and Cimbri, who inhabited the Crimea and adjacent regions. Their sea, which was the sea of Azor, they called Temerinda, after Zimran, and the Amalchian after their great mother Hammoleketh. Among them were found such geographical names as Tamyraea, Sagastene, Sittaceni, Agri, Acria, Apaturium, Ambenus, Taman, Chalca, Teres and Tauri. Few traces of the Zimri appear in Mœsia and Dacia.<sup>134</sup> In Illyria, however, we meet with Dæsitates, Epicuria, Absorus, Metulum, Dimallum, Æmonia, Amantes, Clausula, Cylices, Derrii, Daorisi and Turres. Etymologically Dimallum bears the same relation to Mahalah that Dyrhacium does to Rekem. Paunonia I have shown in the former paper to have been a great Celtic centre.

<sup>128</sup> Aryan Mythology, i. 124 note.

<sup>129</sup> Pausan. vii. 4.

<sup>130</sup> Dic. Philistar, 128.

<sup>131</sup> Josh. xii. 18; Micah i. 10. The latter is not apparent in the English translation.

<sup>132</sup> Strab. x. 2, 17; xiv. 1. 2.

<sup>133</sup> Vide note 98.

<sup>134</sup> Some, however, will be found in the geographical table at the close of the paper. Medianum, a trace of Midian, appears in Mœsia.



Comaro or Komorn and Sumerein retain the name of Zimran; Segeste and Segedunum that of Ishod; Agria or Abieta that of Ezer in its two forms; and Æmona and the Amanteni that of Heman. In Noricum we discover Ambilici, Ambisontii, Cuculle and Trigisamum. Vindelicia had an Ambre; and Rhaetia, Isarus, Maletum and Oscola.

We have thus arrived at the borders of Italy. In Venetia and Istria a few names appear, such as Atria, Motila, Malum, Aquilegia and Tergeste.<sup>131\*</sup> Gallia Cisalpina is naturally much more full. There we meet with Umbranum, Sessites, Testona, Isarci, Acerræ, Edrum, Æmilia, Mediolanum of the Insubres, Mutilum, Cameliomagus, Colicaria, Ocelum, Duria, Duria and Tarus. Tusculum is an indication that Eshcol's family was here represented; and Orobii reproduces the Oropus that accompanied the line of Amphiarus. Liguria furnishes Asta, Cestia, Segeste, Ampelus and Monilia. Mr. Hyde Clarke, to whose important work I have so frequently had occasion to refer, unites the ancient Etrurians with the Sumerian stock.<sup>135</sup> Among their geographical names we find Umbro and Amerium, Hasta and Pisatæ, Auser, Pistoria and Magliana or Manliana. Demaratus, the Lucumo, is Amphiarus, the head of the Alcæonidæ, and Zimran, united with the house of Lechem. He was the father of Tarchon, and the son of Etymon, who has already been before us as Athamas, Admetus, Amphidamas, &c.<sup>136</sup> Umbria was pre-eminently the land of the Cymri.<sup>137</sup> Besides its own name, those of its cities Ameria, Camerte and Camarinum attest this fact. The Æginetæ sent colonies to Umbria, and there Myrmidones, or the posterity of Mamre, were found.<sup>137\*</sup> Asitia or Assisium, probably Suasa, Pisaurum, Matilica, Mevaniola, Gallicana and Clusium set forth Ishod, Abiezer, Mahalah and Chalcol. Cumerium, Tri: and Tetricus of Picenum seem to indicate that Darda occupied the same position in that state as Chalcol occupied in Umbria.

Virgil brings his Latins from Africa.<sup>138</sup> Among them appear Semurium and Simbruinæ, Setia, Amyclæ and Trerus. Thymer and Tmarus are Rutulian names that Virgil did not create, but found doubtless

<sup>131\*</sup> For Atria, see note 176.

<sup>135</sup> *Researches*, &c. 35.

<sup>136</sup> Livii, l. 34. The colonization of Tyrrhenia by the Iyilians must not be forgotten.

<sup>137</sup> Pezron, i. 19, quotes many authorities in support of the opinion that the Umbrians were a Gallic people.

<sup>137\*</sup> Strab. viii. 6, 16.

<sup>138</sup> *Æneid* i., &c.

in ancient traditions.<sup>139</sup> But Cimber was a distinctively Roman name, and appropriately it appears in connection with Metellus. The Metelli, however, were Cæcilian, and thus add Chalcol to Mahalah and Zimran. It was Cæcilius Metellus that threw himself into the flames of the burning temple of the Vestals, and thus acquired immortal fame.<sup>140</sup> The name Vestal, derived from Hestia and supposed to connect with the Persian Avesta, I have already associated with Ishod. A famous Vestal was Æmilia. Her virtue being doubted, she threw her veil into the sacred embers, and the fire kindled of its own accord.<sup>141</sup> This fire, which was allowed to die away on the last day of the year, is the fire in which the mother of Meleager consumed the fatal billet and thus terminated his life. At Festi in Latium the Sabine sacrifices called Ambarvia were offered, and these Strabo associates with the story of Romulus the son of a Vestal.<sup>142</sup> Amulius, another form of Mahalah, who caused his niece to become a Vestal, cannot be foreign to our subject. The Æmilian gens, although distinct from that of the Metelli, may have descended through another branch of Mahalah's family. It was Sabine, and Mamercus, a name derived from Mamers the Sabine god of war, was its ancestor.<sup>143</sup> Mamers or Mamercus is Mamre, the uncle of Zimran. Enyalius, Milo and Thurius were other names of the Sabine Mars, indicating that Mahalah and Darda kept up his martial character.<sup>144</sup> The story of Manlius Torquatus I have already referred to as connecting verbally with other legends of a similar character. Manlius is a form of Mahalah, and Torquatus, of Darda.<sup>145</sup> Dracon in Greek denoted a necklaco as well as a dragon. The Dracæ or water sprites of Gervase of Tilbury, referred to by Mr. Cox as enticing children into their power by the semblance of gold rings floating upon the water, may relate to the same word as torque and dracon.<sup>146</sup> Sabinum exhibited its Zimrite affinities in Simbruinæ, Vestini, Adria, Mesula, Mandela and Cucullum. In Samnium we find Imbrivium, Histonium, Meles, Aquilonis, Eculanum and Aquilonia.

<sup>139</sup> Æneid, x. 391, ix. 685. He also mentions Thymbris and Thymbræus, Trojans.

<sup>140</sup> Banier, ii. 569-70.

<sup>141</sup> Ib.

<sup>142</sup> Strab. v. 3, 2

<sup>143</sup> Festus, sub. voc., Æmil.

<sup>144</sup> Banier, ii. 319.

<sup>145</sup> It is not enough to say that the stories of Torquatus and Malachi belong to comparatively late periods of Roman and Irish history respectively, in order to destroy the force of the connection; for the legend of Tell, and others which belong to the Christian era, have been proved adaptations of old traditions.

<sup>146</sup> Aryan Mythology, ii. 116 note.

Campania contained a Cimmerian region with Plutonic associations.<sup>147</sup> There also appear Sestia, Setium, Acerræ, Megalia; Nola, Aminea, Gallicanus, Callicula and Tirata. The Lampadophoria of Naples, recalling the adventure of Gideon of Ebal, the present Nablous, were instituted by Euneles.<sup>148</sup> Diotimus, associated with Euneles, is a name like Etymon, Athamas, &c. Basta, Matcola, Calela, Drium, Turum and Taras are Apulia's contribution to Zimrite identification. It contained Asculum, which, like many another similar Italian name, related to Eshcol and Ascalon of Palestine. Prestum of Lucania was Doric like Hestiacotis, and, together with Aciris, sets forth the sons of Zimran. Lucania was a western Laconia or home of the house of Lechom. Bruttium furnishes Æsarus, Malleæ and Thurii. Its town Crotona was founded by Myscellus, who is called an Achæan by some, but by others a son of Alcmion of Argos.<sup>149</sup> Crotona also was famous for Milo the athlete, who was a disciple of Pythagoras, and whose name has already appeared in connection with a tragical story and as that of Mars. Milo himself had a tragical end; and, strange coincidence, he was the son of Diotimus.<sup>150</sup> I do not insinuate that the whole story of Milo is a fable. It can easily be that facts relating to a much more ancient personage were confounded with the life of the Crotonian wrestler, just as incidents which plainly belong to the Noachian Deluge were interpolated in many narratives of more recent and local floods. Seyllacium and the Mamertines of Bruttium again indicate the relations of Eshcol and Mamre with their nephew Zimran and his line. Sicily, which was above all others the land of Eshcol, and whose Zancle was no doubt the Ziklag of Palestine, is full of Zimrite names. Such are Himera, Camerina, Danyrias, Thymbris, Ægesta,<sup>150a</sup> Acithis, Acræ, Imachara, Milichie, Mylæ, Macella, Mascalis, Nau-

<sup>147</sup> Strab. v. 1, 5. Amalthæa, the Sibyl of Cumæ in Campania, was also named Hierophile. Her names unite Hammoleteth with Eriphyle, wife of Amphiraraus.

<sup>148</sup> It is worthy of note that Gideon was a man of Ophrah; that he led the Abiezrites; and fought his famous battle of the lamps and pitchers near Abel Meholah: Judges vi. 11, 34; vii. 22. I have called him Gideon of Ebal, because his history, and more especially that of his son Abimelech, is associated with Shechem or Nablous, so called from Ebal, although the Greeks Hellenized it into Neapolis: Judges viii. 31; ix. The house of Milo, Judges ix. 6, may connect with Mahalah.

<sup>149</sup> Strab. vi. 1, 12.

<sup>150</sup> Pausan. vi. 14.

<sup>150a</sup> Macella was on the Crimæus. Ægesta was founded by Acestes, the son of the river god Crimæus. As the Cimmerian Chersônæus is the modern Citruæ, a river Citamæus might easily become a Crimæus.

lochus, Monalus, Amenanus, Menæ, Callicum, Torus, Terios and Tiracia. Himera was said to have been founded by the Zanclexi of Mylæ; and Camarina, by Menecolus a Syracusan.<sup>151</sup> In either case a place named after Zimran is colonized by Mahalah, who on the one hand is connected with the family of Eshcol, and on the other with Sheresh of Gilead. I cannot but think that the earliest population of Sicily came from Africa, for on the opposite coast of Carthagina appear *Sicilibus* and *Membresa*, setting forth the migrations of the Amorite line of Eshcol and Mamre. Melita, south of Sicily, I have already claimed for the posterity of Mylitta or Molekoth. Bastia in Corsica is a reminiscence of Ishod; and Metalla and Tarrhæ of Sardinia, of Mahalah and Darda.

In Gaul we would naturally expect the Zimri to be well represented. And so in fact they were. In Narbonensis, Ambrum, Ambrussum, Comaria and the Sambracitanus Sinus illustrate Zimran; and the Caturiges with Cotorissium, the Katoorah of Arabia, or those who took their name from his mother Keturah. Setius Segustero, Badera, Mantala, Calagorris, Salsulæ and Tarasco are traces of most of his descendants. But the best Zimrite record is Massilia or Marseilles, which appears in a thoroughly Cymric region, and which was said to be a Phœcean colony. The Ephesium of this city seems to link its history with Samornia of Asia Minor and with the family of Midian, of whom Ephah was the eldest son. There was a famous college of Druids near Marseilles in a sacred forest or grove of oaks, and this wood the Abbe Banier does not scruple to associate with the oaks of the Amorite Mamre.<sup>152</sup> Aquitania preserved few if any traces of Zimran himself, but his descendants were commemorated in the Vasates, Sociatum, Segodunum, Acitodunum, Atures, Segora, Meduli, Mediolanum, Tamnum and Limonum. The Caderci may have been a later Caturiges or Katoorah. Pezron cites Eustathius, Jerome, Isidore of Seville, the Paschal Chronicle and Joseph Ben Gorion as authorities for deriving the Gauls proper from Gomei.<sup>153</sup> It is exceedingly doubtful whether ethnological researches will ever succeed in taking us back to the time of that ancient patriarch, and much more, whether any tradition but that of the Bible will ever be found making mention of the great men of the antediluvian world,

<sup>151</sup> Thucyd. vi. 5.

<sup>152</sup> Banier, iii. 223-24. He also connects the Druids with Pythagoras and the Persian Magi, 228.

<sup>153</sup> Pezron, i. 3.

whom some writers have been so prone to discover on every page of ancient history. Ludgunensis contained the Ambarri, Semuren, Segustani, Segossera, Meldi, Melodunum, Mediolanum, Salioclitæ, Aquæ Calidæ, which I believe to have been a Latin version of a word foreign to that language, Tricasses, Turones and Druidæ or Durocasses. Belgica was a great home of the Cymri. Samora, Samarobriva, Camaracum, Cambresis, the Ambrones of Helvetia, Sambro and Kemerland of Flanders, were records of Zimran. The Suessiones may have been the descendants of Ishod. The Isara commemorated Ezer; and the Mosella, with Medialænum and Mechlin, Mahalah. The Ambiani of the modern Amiens and Ambiatinum were certainly of Heman. Galusiacum may set forth Chalcol; and Turicum, Duroicoregum and the modern Dort, Darda. Time does not permit me to dwell upon the geographical propinquity of the various names mentioned, but this will be found important in establishing the connection of the different tribes with one another and with their common ancestors.<sup>153\*</sup>

Spain received its Cymric population from Africa, and probably sent the stream into Gaul. In Bætica, so closely associated with the memory of the Gileadite Bedan, there was no record of Zimran, but Ishod was represented by Asta, Asito, Segida, Setia, Setida, Bastia, and the Bastitani; Abishur by Abdera and Hactara; Hammoleketh by Malaca; and Darda by the Turdetani. Lusitania furnishes Tomar, Ambracia, Emerita, Egitania, Gereca, Metallina, Æminium, Cæcilium and Durius. Tarraconensis was fuller. There we find Tamara, Sambroca, Ampuriæ, Melsus, Cesada, the Ausetani, Cose-tani and Vescitani, Agiria, Nucaria (an occidental Nagara), Massilia, Amphilochia, Amallobriga, Amænum, Calagurris, Dertosa, Turias, and Tritium. Already I have supposed a Gallic Aquæ Caldensis to be a corruption of Chalcol. This receives probability from the fact that Amphilochia, which Amphilochus, who was ever attended by Calchas, is said to have visited, was also called by that name.<sup>154</sup> Orippe and Orubium of Spain are, like Aripa and Herpis of Mauretania, links to unite Zimran or Amphiarus with Oropus.<sup>155</sup>

Cambria, and Cymri the name of the Welsh, are sufficient indica-

<sup>153\*</sup> Pictet mentions Æsar and Molk among Celtic divinities; Higgin's Celtic Druids, 167.

<sup>154</sup> Strab. iii. 4, 3.

<sup>155</sup> Other names that may possibly connect with Oropus are Arabis of Gedrosia and Orebatia of Persis; Europus of Mesopotamia; Harpasus of Armenia; Herpo and Arabissus of Cappadocia; Arrubium of Mœsia; Eriboæa of Epirus; Orobæa of Eubœa; Arba off Illyria; Arabona of Pannonia; Orobii of Gallia Cisalpina; and Urba of Gaul.

tions that the Zimri passed the sea and peopled the British Islands, along with their relatives the Celts or Gileadites. Cambria or Britannia Secunda does not, however, present us with many names illustrating Zimran's line. The Seteia may be a reminiscence of Ishod, Mediolanum and Machynleth of Mahalah, and Mona of Heman. But Britannia Prima, or the region south of the Thames and the Bristol Channel, was, according to Richard of Cirencester and other writers, a home of the Cimbri.<sup>156</sup> They left their name in the Tamar and Tamara of Cornwall, in Somerset itself and in Ambrius and Ambresbury of Wiltshire, where Stonehenge is a memorial of Druidical occupation. Ishod's name may have been shortened to Isca, and may appear in the modern Seaton. St. Michael's Mount probably had nothing to do with the archangel, but was a close imitation of Machalah. The Damnonii, whose cities were Tamara, Isca and Uxella, and among whose rivers appear the Tamarus, Isca and Durius or Dart, were undoubtedly the descendants of Heman, associated with those of Ishod, Chalcol and Darda.<sup>157</sup> Ischalis and Calcuia may be added to the records of Chalcol; and Darda finds abundant representation in the Durotriges, Truro, Dorset, and a large number of similar names further east. Ocrinum, the name of Lizard Point, was perhaps a disguised Ezer. It is interesting to find Termolus as one of the chief towns of these British Cimbri, as it recalls the Termilyæ of Lycia, whom, as Milyæ, I have already associated with Mahalah. Turmuli in Lusitania, and Tremuli in Mauritania, are two connected names. Flavia Cæsariensis cannot have contained so large a Cymric population as Britannia Prima. Yet we find there Camborium, Combretonium, Mediolanum, Durocina, Durocibrivæ, &c. Maxima Cæsariensis, although in the Roman period destitute of names directly denoting its Cymric relationships, betrayed these at a later period in the Humber on the East and Cumberland on the West, as well as in Deira. Segedunum, the Sistuntii, Isurium, Maglove, Amboglana, Galacum, Oxellum and Calcaria, are earlier vestiges.<sup>158</sup> In Caledonia Dumbrion, Malua, Damnii and Uxellum, may have been outlying pickets of the family of Zimran.

<sup>156</sup> Six Old English Chronicles, Bohn, 440.

<sup>157</sup> *Ib.* 441.

<sup>158</sup> Cataracto or Catterick in this province recalls the Caturiges of Gaul and the Arabian Katoorah. Similar names are Catarrhactes of Mesopotamia; the Catarrhactes of Pamphylia, Crete and Laconia; and Cataracta of Samnium. It is hardly likely that they are all Greek.

In the Welsh legends, Emrys or Ambrosius was a famous name.<sup>158</sup> It was this Aurelius Ambrosius who, with the aid of the magician, Ambrose Merlin, a fatherless personage, set up the megalithic structure called *Stonehenge*. The mother of Ambrose Merlin was a daughter of the king of Dimetia.<sup>159</sup> Among the mythical British sovereigns, many seem to claim kindred with Zimran and his descendants. Besides Ambrosius, we meet with Kimarus, who is called the son of Sisilius, as Amphiaraus is termed the son of Oicles. The British and Greek names must equally denote Eshcol, the uncle of Zimran. The brother and successor of Kimarus was Danius, who may easily have been Dedan, the son of Jokshan, the brother of Zimran. Tangustela, the concubine of Danius, reminds us of the Etruscan Tanaquil or Caia Cæcilia, the wife of a Tarquin. But before the time of Kimarus appears Maddan, a Midian-like name. He was the father of Mempricius and Malim, who respectively recall *Mamre* and *Mahalah*. Among the children of Ebraucus (an *Ophrah*), the son of Mempricius, we find such names as Sisilius, Kambreda, Stadud, Assarach, Edra, Egron, Methabel, Gaul, Gloigni and Darden. This may indicate simply the Zimrite origin of those among whom the corresponding names appear.<sup>160</sup> According to some ancient historians, the Cymri of Wales were the descendants of Briotan Maol, whose language was the original Irish.<sup>161</sup> Maol is the important part of this name, and probably denotes *Mahalah*. He, as the Celtic Mars, should be the primitive Mile, the Latin Miles, a soldier. Fionn Macumhal, perhaps the same as Macuill, was the first to embody the famous Irish militia. His daughter, Sammir, bore a Zimrite name.<sup>162</sup> But in Malachi, who won from the Dane Tomor the collar of gold, we discover, as I have already indicated, Manlius Torquatus, and in the collar the necklace of Eriphyle.<sup>163</sup> Tristram

<sup>158</sup> Davies' *Celtic Researches*, 191. Bryant, in his *Analysis* v. 201, deals with the subject of Amber stones, which he finds in many parts of the world, and with the word Amber as denoting sacredness, which he finds in Greece and Egypt.

<sup>159</sup> *Six Old English Chronicles*, 192.

<sup>160</sup> *Ib.* 132, 111, 113.

<sup>161</sup> Keating's *General History of Ireland*, 129.

<sup>162</sup> *Ib.* 281, 297.

Besides Tomor the Dane, from whom Malachi won the collar, who bears a name analogous to Cimber, we find in Irish history a Danish Earl of Tomair, a Turgesius and three other Danes Amelanus or Anblaolb, Cyracus and Inorus, with a Humphrey, recalling the Kemperly men of old English traditions: Keating, 425, 412, 434, &c. The Danes are called Gauls: Keating, 413-

<sup>163</sup> Keating, 475.

of British story, the son of Meliodas, may possibly be Darda of Mahalah.<sup>164</sup> The latter hero might also be the namer of the mistle-toe, so intimately connected with the oaks of his son Darda. In the British and Irish traditions equally, a migration along the African coast of the Mediterranean is recorded, agreeing so far with those of the Latins.<sup>165</sup>

In my last paper, I illustrated the wide dispersion of the family of Gilead by well defined traces of its presence in Germany and Scandinavia. Within the same Teutonic area the Zimri may be found. The Istævones may have received their name from Ishod. Among them appear Sicambri and Gambrivii, Segodunum, Adrana, Mediolanium, Ambiatinum, and the Dructeri. Strabo mentions Melon as a leader of the Sicambri, and Segestes as chief of an allied tribe.<sup>166</sup> The Hermiones furnish Setovia, the Sudeti mountains, Setuacatum, the Mugiloncs, Meliodunum, Medoslanium, the Omanni, Galægia and the Teracotriæ. The Chætuori may have been a German tribe of Katoorah, and the Diduni, descendants of Dedan the son of Midian. Above the Hermiones and south of the Baltic, between the Elbe and Sarmatia, we meet with Æstii, Setidava, Susudata, Obotrites, the modern name Mecklenburg, and the Calucones. The Teutones reproduce the Diduni and Dedan. The Cimbric Chersonesus introduces us to Scandinavia and to another Amalchian sea. The Wagri of Holstein seem to indicate that Ezer's family was in the ascendant there; and the Sitones, with Sigtuna of Sweden, that the descendants of Ishod had peopled that country.<sup>167</sup> The Danes themselves I believe to have been the posterity of Dedan. The Asiatic origin of the Germans and Scandinavians is so undoubted as to require no comment.<sup>168</sup> The river Tanaquisl, whence the latter are said to have come, bears a suspicious resemblance to Tanaquil and Tangustela, Etruscan and British names.<sup>169</sup> The giant Ymir, who was the ancestor of the Teutonic family in their mytho-

<sup>164</sup> Cox & Jones, Popular Romances of the Middle Ages.

<sup>165</sup> Six Old English Chronicles, 101-2, 390; Keating, 110, &c.; The Scottish Chronicle.

<sup>166</sup> Strab. vii. 1, 4.

<sup>167</sup> Latham's Ethnology of Europe, 202. The Cimbric and Æstiones are said to have spoken Celtic. Buchanan, Hist. Scot., ii. 14.

<sup>168</sup> Mallet's Northern Antiquities, Bohn, 83, 516. The presence of Runic, Etruscan and Irish Ogham characters in Arabia is the most natural thing in the world. Baldwin's Prehistoric Nations, 57.

<sup>169</sup> Ib. 84.



logy, and another famous giant Gymir, must represent Zimran. The latter married Aurboda, a kind of Arriphe or Eriphyle, and had a daughter Gerda, the Critheis of the Homeric legends.<sup>170</sup> Still another Zimrite name appears in Hymir the fisherman, who should rather have been Jokshan the brother of Zimran, seeing that his name means "the nets," and is the original, in as far as Hebrew is an original language in etymology, of the Greek Diktuon, meaning the same thing.<sup>171</sup> Miolnir, a name of Thor, may possibly connect with Mahalah. I do not know whether Tuisto, father of the German Mannus, designates Ishod or not. Heman the son of Mahalah, or, better still, Meonothai son of Abiezer, may represent Mannus. Mimir, who deprived Odin of his eye, I have already associated through the legends of Cocles and others representing Eshcol, with Mamre, the uncle of Zimran.<sup>172</sup> Oxylyus, one of these one-eyed heroes, exhibits his Gileadite relationships in being called the son of Mars and Protogenia, the daughter of Calydon.<sup>173</sup> Similarly Zimran, as Imbrius, is the son of Ægyptus and Caliane, and, as Ampheres, of Neptune and Clito. The Scandinavian Gladshemer was in all probability a reminiscence of a Gileadite or Celtic region. Fortunately for the reception of the fact of a Germanic connection of Gileadites and Cymri, the character of the Cimmerians, as either distinctively Celtic or Germanic, has never been settled.<sup>174</sup> The explanation of this uncertainty is found in the Germanic education of a portion of the Cymric stock which entered Europe from Asia. We may naturally expect these Asiatic Zimri to reproduce in their mythology and language some of the features characteristic of Greek culture and tradition; while the African Zimri of Spain, Gaul and Britain, should possess elements in common with the Latins and other Italian peoples.

Besides the three Cymric tides which overflowed Europe, two of which came from Africa and one from Asia, there were at least two others that spread over parts of Asia and Africa respectively. One of these we have traced through Persia and India to the borders of China, and the other we left in Ethiopia. Both of these might

<sup>170</sup> Mallet's Northern Antiquities, Bohn, 403, 428.

<sup>171</sup> *Ib.* 444.

<sup>172</sup> *Ib.* 411.

<sup>173</sup> He is also called the son of Hamon, who must be Heman.

<sup>174</sup> Rawlinson's Herodotus, App. Book iv., Essay 1. Mallet's Antiquities, 63 note.

easily have been carried farther. The Asiatic, entering China, sent a stream doubtless into the New World from the east, which met with the corresponding stream that flowed from Western Africa or Spain into the Gulf of Mexico and the Caribbean Sea. The African made its way slowly into the centre of the continent, where Djebel Komri, Bornou, with its traditions of Himyaritic occupation, and, in the west, the Cameroons, retained the memory of Zimran.<sup>175</sup> This wide dispersion of a single family, and that not a primitive family of mankind, is surprising. Zimran himself must have lived about nineteen centuries before the Christian era, and not more than four generations of historic men can have preceded him. For these four generations we find ample materials in the Bible, by the aid of which history may be restored up to the very dawn of national existence. I am as yet but a pioneer in the unbroken tract and tangled forest of ancient tradition. Other writers will yet make plain and smooth the highway of the nations from their eastern dwelling place, and, reducing to order and harmony the fragments of mosaic which it has been my labour of love to disinter at every stage in their progress, will present a picture of the far off past that shall be the delight and instructor of future ages.

The following tables exhibit the results obtained, as these have been set forth in the paper. I once more deem it necessary to state that I do not vouch for all the connections set forth, nor do I consider that the proof is vitiated by what may be found an unnecessary and in some cases an erroneous fulness of illustration.<sup>176</sup>

<sup>175</sup> Baldwin's Prehistoric Nations, 329.

<sup>176</sup> As I have already indicated that Ezer or Abiezer, the second son of Zimran and Hammo-lekth, had a son Meonothai and a grandson Ophrah, I have thought it desirable to add a table of their geographical connections, which will be found closely to relate to those of Zimran's family already mentioned. Meon, or, with the power of the *ayin*, Megon, is the important part of Meonothai's name; and that of Ophrah, which, commencing with *ayin* may appear as Gohrah, &c., is found in the Bible as Leophrah or Beth Leophrah.

*Ersia*.—Mandagora, Caberasa, Gabris and Sabris of Media. Gabra of Persis, Siphare of Ar, and Masin of Gedrosia.

*Adia*.—Magon, Massani, Masicani, Mæandrus. Supphara, Sabaræ, Sippara, Sabara, Ataganus.

*Ab. & Ass.*—Mesene, Mesene, Mennis, Mygdonia. Abara, Siphara, Chaboras, Caprius, Labara.

*Irabia*.—Mæceni, Labris, Obraca, Sapharita.

*Africa*.—Macomades, Macanita. Gaphara, Eperos, Aubereum, Sabrata, Tillabari.

*Syria*.—Capparex.

*Asia Minor.*—Mosynæci, Messena, Moson, Mygdones, Mosyno, Myndus, Mæander, Magnesia, Mæonia, Myonnesus. Sibora, Labranda.

*Thrace.*—Mosynopolis, Apri, Euporia.

*Macedonia.*—Mygdones.

*Greece.*—Magesia, Cyphara and Sperchius of Thessaly; Mæandria of Epirus; Macynia of Ætolia; Myonia of Locris; Cyparissus of Phocis; Eupyridæ of Attica; Mecone of Sicily; Mycenæ of Argolis; Messeno, Hyperesia and Laphria of Achaia; Ephyra and Lepreum of Elis; Mantinea, Cyparissia and Aliphæra of Arcadia; Cyparissia of Messenia; and Cyparissia of Laconia.

*Islands.*—Mesine of Cyprus; Myconos; Myonessus; Hipparis; Ephyra; Sybarita of Creæ; Leucophrys of Tenedos; and Caphareus of Eubœa.

*Mœsia, &c.*—Appiaria of Mœsia; Monetum, Liburnia and Alporio of Illyria; Mogentiaæ, Sabara, Sabaria and Labores of Pannonia; and Savaria of Noricum.

*Italy.*—Mantua, Eporedix and Libero of Gallia Cisalpina; Monœci Pontus and Libarni of Liguria; Liburnus of Samnium; Misenum, Eburi and Avernus of Campania; Capriæ, Sybaris, Sibarena, Aprustum and Loucopetra of Bruttium; Messana and Hypparis of Sicily; Mantinorum, opp. of Corsica; and Lipara.

*Spain.*—Massienus, Mantua, Mundus, Mentesia, Menesthei; Epora, Eboræ, Ebuobritam, Sibaris; Ebara, Libora or Talabrica; Lavara, Labobriga.

*Gaul.*—Monesii, Moguntiacum, Nantuates, Nemetes, Namnetum; Avara, Avarium, Eburæes, Ebuovices, Ebuodunum, Ebuobriga, Gabris.

*Britain, &c.*—Magnaum or Limerick, Monaoida; Eboracum, Gabrosenum, Laberus.

*Germany.*—Munitium, Mœnus, Misnia, Nuithones; Ebarum, Ebuodunum, Lupphuram, Tuliphurdum.

Many of these names are intimately associated with the records of Ezer. Thus in *Idia*, Supphara and Sippara are near Muziris and Magaris respectively, and Abraganes near Aggers and Thagora. In *Mesopotamia*, Labbara, which lies in the north of Messene, is not far from Hatris; and the Chaboras divides Mygdonia from Osroene. Labris of Arabia is in the territory of the Gerræ, and Obraca in that of the Agræi. Sabrata and Assaria of Africa are near to each other. In *Syria*, Cappareæ has Megara to the north and Sizara to the south-west. Sibora of Pontus is among the Agræans; and Apri of Thrace is found among a people of the same name. The Mygdones of Macedonia connect with Assurus. Hyperesia in Achaia bore also the name Egira. Appiaria of Mœsia was near Tigra and the Iatrus. Sibarena of Bruttium lay between the Neathus and the Æsarus. Eboræ of Tarraconensis was also called Ixar. Ebuobriga of Gallia Lugdunensis was not very far from Segessera; and Eboracum of Britain was still near to Isurium. Many similar associations of names tend to prove the correctness of the connections of Meonothai and Ophrah with the family of Ezer.

Before dismissing this family there is a remarkable Bible reference to Ezer himself which cannot be allowed to pass without comment. In *Jeremiah* xlvi. 32, we read of the sea of Jazer, the name of which is identical with that of the region in *Gilead* called after Ezer. The children of Moab are there spoken of as passing the sea, and their settlements as reaching as far as the sea of Jazer. I cannot doubt that the sea of Jazer is the Adriatic, and that Atria and Edro of Venetia, Adria of the Vestini, with Iadera of Illyria, and other similar names upon its shores, are memorials of Ezer. It is interesting to find a legend that Sorrento was founded by Hadarezer of Syria, who fled before the arms of David. He may have been confounded with an earlier Ezer. Early Travels in Palestine, Bohn, 6, 9. At Atria in Venetia we find the Fossiones Phlistinæ. It will not be a difficult task to find the descendants of Moab in the neighbourhood of this sea. Messapia doubtless was one of their colonies. There are appearances as *Uria* or *Hyria*. They may also have passed into Etruria, and given to its river Arnus the name of their Arnon. The Mopsopians of Greece and Asia Minor mark the Moabite track westward.

## I.—GEOGRAPHICAL CONNECTIONS.

	ZIMRI OR ZIMBAN.	ISHOD.	EZER OR ABIEZER.	MAHALAK AND HAMOLEKETH.	HEMAN.	CHALCOL.	DARDA.
Præsiæ—							
1. Media	Amariçæ	{ Syria { Soxoto { Astaceni { Socando	{ Azar { Tachasara { Tigrana { Agra	{ Aml { Malai { Melitona	Anana	Acola	{ Dariansa { Derusai
2. Susiana	Gombron	{ Issatis { Astacana { Tasilchio { Isaticho { Basistis	Gadar				Deera Darico
4. Hyrcania	{ Samariac { Tambrax { Anarus { Asmura { Ambrodax						Dordomana
6. Carmania	Somiramides						Dars
7. Sogdiana	{ Comari { Samareand { Amares { Chomara { Ambrodax { Zuryra	Astacana	Icarus		Onocnus		Dargidus
8. Bactria			Cassroto		Dammana		
9. { Aria and { Margiana		{ Aska { Astanda { Astaveni { Sacsteno { Astinea					
10. Gedrosia	Tamorus		{ Agris { Bagasica	Malana	Nommana	Cocala	Troesi
INDIA—							
1. Northern	Camborcuni	{ Astaceni { Soastus { Suateno { Astaccpra	{ Abissares { Agra { Nagara { Hippocuria { Agra	{ Malh { Miyulu	{ Amirachæ { Jomanes { Senno	{ Olauce { Cocala	{ Darde { Tirhut { Dyandanes
2. { Central and { Southern	{ Amara { Ambra { Comaria { Tamra { Limyrica { Saimarado { Kenumeren			Mesolia		Caliguris	
3. { Farther { India			{ Pagrasa { Acadra { Thagora { Agores	{ Malaya { Malacca { Malucolon		Calliguris	Tharra
4. Scythia	Asmyrea	Issedones	Abu Shahreih				{ Terebon or { Diridots
CHALDEA.	Camarina						

<b>BABYLONIA</b>	Thamara	{ Iscedes Sittaco Saccada	Otris	Malcha	{ Tercada Dorista Dartlia Dura
<b>ASSYRIA</b>	{ Sumero Samarau Gomara Himeria Ombyo Semitramides	Saccada	Aturia	Meso Pyro, or Mosul	{ Dura Dadura Daradax Darro Thuris
<b>MESOPOTAMIA</b>			{ Auxaris Harris	Malli	{ Achaakala Cecifum
<b>ARABIA</b>	{ Zamarehi Asaneni Saubaccata Smyrniophoros Chamara Shammar Thamar Homeritea Hamrel Amara Omran Sombrioo Anbhar	{ Sata Asateni Asclio Sacatia	{ Agrel or Gerruel Ausara Ausarfab Agra Nagara	{ Mela Mamala Massala Mashtala Malicho Malichif	{ Omara Omanitico Amanitico Mizai
<b>ETHIOPIA</b>		Tasitia	{ Agri E-sar Taposiris	Mossylon	{ Darada Deiro Beirut Tarichua
<b>EGYPT</b>		Schealia		Mifukhi Metelis Mereleus	
<b>N. AFRICA— 1. Libya</b>	Semeros	{ Auschilao Nausida	Aziris	Eumenes	Diarroas
<b>2. { Africa and Nubidia</b>	Zamort	{ Sidetani Pistida	{ Azarath Sizara Sizar or Usar	Augite	{ Durga Tarychre Tritonis
<b>3. Mauretania</b>	{ Tumara Thamarila Camara Enjorlicus	{ Usceta Sigatha Sitis	{ Asarh Tigris Tasgora	Damensi	{ Durdus Drylao Darada Dracones
<b>PALESTINE</b>	{ Zamarain Samarila Dunimar Tanyra	Aswad	{ Abiezer Jaazer Azar Gerra	Mina Jouuntum	
<b>{ PHENICIA AND SYRIA</b>			{ Mahallib Ampefossa	{ Amara Hamluca	{ Trachones Trieres Duradax

ARMENIA	Zimara	{ Astacana Testis	Azora	Molchia	Acifecne	Tarsura
CAUCASUS	Seumara	{ Stodia Vasaria	Absorus	Mecchicusus	{ Glaucus Cilici	
ASIA MINOR— 1. { Pontus and Cappadocia.	{ Imbarus Shoria	Scydisees	{ Aziris Cizari	{ Pimolisa Megalopolis Melas Meditene Mylio Mallus Mclania Timoleum	{ Collucia Gachasera	Dracones
2. Cilicia.	Commoris	Pisideum	Gazora	{ Amnides Homonada Amnias Domanitis Timonitis Amnias	Callichorus	
3. { Paphlagonia and Galatia		Vasada		Eumenia	Callica	{ Trogotis Tyricum
4. Bithynia	{ Thymbrius Smyrdiana	{ Askacus Astacenus Ponidicum	{ Isauria Achara	{ Melissa Nacoleia Pittonium Melas Ambada Pamphylla Milyas Termylio Myiasa		Darsa
5. { Phrygia and Lycaonia	{ Thymbrium Aurotum	{ Side Pisidia	Agtioteri	Homona		
6. { Pisidia and Pamphylia	Thymbrius	Istonda		{ Myonnesus Maconia	Glaucus	Dordis
7. Lycia	{ Chimera Limyras	{ Pystus Saitæ	Gero	{ Melas Tinolus Makena Mycalo Ampelus Mallus		
8. Caria	Thymbrius					
9. Lydia	{ Smyrna Samornia Thymbro	Assus	Nacrass		Callicolona	{ Troas Fragase
10. Mysia	{ Cimneris Thymbrius Thymbrium					
THRACE	{ Ismarus Himereum Tempyra	{ Sestos Satho Astica	{ Abdora Agora Agrianes	{ Melas Nastolchus Ampelus		{ Dorcas Teres Doriscus Drys Tyrius Tyroliza



ISLANDS— 1. Cyprus 2. Crete	{ Cimarus { Carnari	Phæstus	Aptera	{ Metallum { Amycirum { Omphalia { Ampelus { Amphimalla	Limonia Minoa	Golgoi	Treta { Tattia { Tityrus
3. Enbece 4. Others	{ Amerynthus { Imbros { Imbrasilis { Canisrus	Hestia	{ Agarus { Iatrus	{ Moschylus { Naufochus { Melos { Malea { Ampelus { Amphilissus { Naufochus { Moidia	Tamynæ Lemæys	Echallia	Trycha Thera
{ MESIA AND { DACIA		Sugidava	{ Agarus { Iatrus		Hammeno	Chalca	{ Tiriscum { Turres { Drista { Dorticum { Tretes { Tauri
SARMATIA	{ Climmeri { Ternerinda { Tamyraca { Samara	{ Sagasteno { Sittaceni	{ Agri { Acria { Apaturium	Amalebitum	Taman { Ambenus		
ILLYRIA		Daxtilates	{ Absorus { Epicaria { Iadera or { Zari { Abieta or { Agria	{ Metulum { Dimallum	{ Emonia { Anantes	{ Clausula { Cylices	{ Derrji { Daorisi { Turres
PANNONIA	{ Comaro { Komora { Sumeria { Ambro { Ambidrani	{ Segeste { Segedunum	Isarus	{ Amblicci { Maletum	Ambisonii	{ Cuculle { Oscele	Trigisumum
{ NORICUM, { VINDELICIA AND { RHÆTIA							
ITALY— 1. { Venetia and { Istra 2. { Gallia { Cisalpina 3. Liguria	{ Umbrannum { Insubres { Lambros	{ Sessites { Testona	{ Isara { Accrim { Edrum	{ Motila { Mahum { Mediolanum { Mutium { Emilia { Camelonagnus { Ampelus { Monilla	Aquilegia	{ Collicaria { Ocellum	Tergesto  Duria Durico { Tarus
4. Etruria	{ Umbro { Amerinum	{ Asta { Sestim { Segeste { Iastia { Pisate	{ Pistoria { Ausar	{ Magliana, or { Mandiana	Minio	{ Agylla { Igitium	Tauri



5. { Umbria and Piceura	{ Ameria Umbria Camerio Camerinum Cumerium { Senurium Saprubine Sinubrine	{ Asilia Suasa	Pisaurum	{ Matifca Menaniola	Laminio	{ Gallicana Clusiolium	{ Tuder Tura Tetricus
6. Latium	{ Setia Festii Vestini	{ Setia Festii Vestini	Adria	Amyclio { Mesula Maudala Meles	Cucullum	Tetrus	
7. Sabinum	Histonium	Histonium		{ Nola Megalia	Aminca	Tirata	
8. Samnium	{ Sestia Setium	{ Sestia Setium	Acerre	{ Mateola Malleo		{ Drium Turum Tarus Thuril Torus Tertes Tirata	
9. Campania	{ Basta Festum	{ Basta Festum	{ Aciris Asarus				
10. { Apulia, Lucania, and Bruttium	{ Eggesto Acithis	{ Eggesto Acithis	{ Acro Inachara	{ Milichio Mylio Maccella Mascalis Naulochus Menalus	{ Meno Amenanus	Callicum	
11. Sicily	{ Himera Canarina Damyrias Thyrris						
SPAIN—							
1. Betica	{ Asta Avito Segida Setia Setida Bastin Bastiani Egitanca	{ Asta Avitara Hactara		Maluca			Turdetani
2. Lusitania	{ Tomar Ambracia Emerita Tamarra Sambroca Anpurie		Gereca	{ Metallina Turmuli	Embitura	Cacilium	Durius
3. Tarraconensis	{ Cosada Ausclani Cosclani Vescitani	{ Astria Nucaria		{ Amphilochia Melsus Massilia Amallobriga	Amerum	Calagurris	{ Turia Tritium Dertosa
GAUL—							
1. Narbonensis	{ Comaria Ambrun Sambretanus	{ Segustero Setius	Badera	{ Massilia Mantala		Calagorris Salsufe	Tarasco



## II.—HISTORICAL, MYTHOLOGICAL AND PHILOLOGICAL CONNECTIONS.

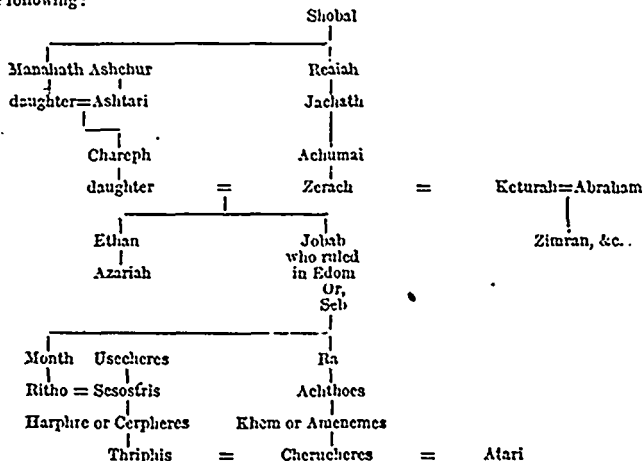
	ZIMRAN.	ISHOD.	ADIEZER.	HAMOLEKETH AND MAHALAH.	HEMAN.	CHALCOL.	DARDA.
Persia	{ Bible Zimri Kalomers Tehmouras STONEHENGE	{ Piscidad	{ Apusorus	{ Mahleel			{ Zartus Dur. a pearl.
India	{ Timbare Sambara Suumuri	{ Alnsat Chetliya Sacti	{ Upachara	{ Matika Muchala Mahali Mekhalli			Tirtakak.
{ Babylonia and Assyria	{ Smirra Zanrus Cambirus Semiramis	{ Ascalades Gatiya Usati	{ Epliccheres	{ Moils, or Myllita Mihshih Mancaleus Manylus Ancion Eryalius Musallimu	{ Amyntes Anenon	Khalkhalla	
Arabia	{ Homerito of Ketural; Hfmyar; Shammir; STONEHENGE		{ Ashar				
{ Palestine and Phoenicia	{ Zimran, a song. Denaroon STONEHENGE	{ Shachad, a gift. Adodus	{ Abiezer, father of help.	{ Hammoleketh, the Queen. Mahol, song. Meicartus			{ Darda, pearl of wisdom.
{ Cilicia Galatia Pamphylia	{ Galati of Gomer	{ Atys Husiod		{ Amphilocheus at Mallus with Calchas, and founders of Pamphylia.			
Lydia	{ Omyretis Smyrna Homer Homerida			{ Meles Menopolus Eunetes Tmolus Amphilochus at Ciaros with Calchas.	Macon		

Myra	Thymbreus	Asyetes	Molon		
Thrace	Thamyris		{ Zamolxis { <i>Melos, song</i>		
{ Thesaly { Epirus { Etolia			{ Pamphyli and Dymanes { Meladon { Eunetes { Amphiloehus { Neleger { Mho { Mellanion	at or	{ Doris { Dryades { Torpus { Thireus
4					
{ Locris { Phocis { Boeotia	Amphiarus	Schedius	Theoi Melichioi		Tiresias
{ Attica { and { Egina	Amphiarus	Pisidce	{ Zeus { Megal.	Echeclus	Draco
Argos	Amphiarus		{ Amphiloehus { Zeus Melichios	Calchas	
Achata		{ Astacus { Hicetaon	Melanippus		Tritia
Arcadia		Agrus			
Laconia		{ Epikouros, { the helper			
		Egisthus			
{ Cyprus { Crete { Rhodes	{ Tamyra { Cambus		{ Amyclas { Menelaus { Euyalus { Eunclus	{ Cleoncharis { Zaleucus	{ Deritis { Therita { Tyrtæus
{ Eubœa { Imbros { Samos	{ Imbramus { Tembrion		{ Melisseus { Analthæa		
Etruria	Demaratus		Amphiclus		Tarchon

{ Latium and Sabium }	{ Thymer Tamaris Cinber Ambarvia }	Vesta	{ Ajutor, the helper }	{ Metellus Manlius Æmilia Annulus Enyalus }	Cacilius	{ Thruris Torquatus }
{ Magna Græcia and Sicily. }		Acastos		{ Myscellus Milo Menecolus }		
{ Gaul and Spain. }	{ Celts from Gomer. }			{ Amphilocheus in Spain Wood of Massilia }		Druids
Britain	{ Kimrys, or Ambrosius; Ambroso Merlin; Kinnarus; Stoncutzæ 177 }			{ Mallm Mellodas Mott, sing Mautiganu, chant }		{ Druids Tristram }
Ireland	{ Tomor Tomair Inorus Humphrey Amhran, song. }	Ascaadh, gift	Cyracustus	{ Arnelanus Mile, soldier Mat, poet }		{ Turgesius Dareg, oak }
{ Germany and Scandinavia }	{ Yinir Gymir Hymir Hamnar, hammer }	Tulsto	Ægir	{ Micolnr Mat, song }		{ Thor of Thrudvang }

177 I have already (note 159) mentioned the word *amber* in its connection with Zimran, the Cymri and sacn stones. The word *amber* is Celtic, and appears in most modern languages. Had we any doubt that Zimran is its original, it would be removed by the Greek word *Electron*. *Electra* I hold to be the name of Keturah, with the prefix of the Arabic article. An *Electra* is made the mother of Medon, a Midian. *Electra* in Messenia connects with the story of Thamyris, and Ithome near recalls Etam. Paus. iv. 33. *Electryone* was the sister of the Rhodian Heliades, among whom *Ochime*, *Cercaphus* and *Camirus* appear. The name *Keturah*, as denoting incense, may easily be associated with *amber* or *ambergris*. The Slavonic languages probably retained her name as the term for this substance in *jantar*, *gintaras* and *silters*, all of which may be corruptions of *Keturah*. I have, however, proved pretty definitely the connection of *Keturah* with *Eshcol* and *Mamre*. *Sacal* is the Egyptian word for *amber*, and is doubtless the same as *Eshcol*. When we pass beyond the region of the language of necessity into that of luxury, art and science, historical etymology must be our guide. As *tantalkæ*, *damask* and *cabal* carry us into mythology, geography and history respectively, so we shall find that a large proportion of the words of any language can only be explained by searching for them in similar fields. Mythology is not so much a disease of language as language is an embodiment of ancient facts of which what we are pleased to call mythology retains the only memorial. I do not know precisely why *Liguria*, a western *Loeris* and early home of the Celtic *Lægrians*, should give a name to *amber*. It was however a *Zimrite* region.

178 It is more probable that *Cyracus* denotes *Zerach* the second husband of *Keturah*, who is referred to in note 98. He is, as I have there stated, *Zerach* son of *Achumai*, *Harka* of *Khem*, *Cherucheres* of *Amenemes* and *Cercestes* of *Egyptus*, who derived his name from *Chemi* or *Coptos*. He is also *Cereyon* the son of *Agamedes*. It seems that he married before *Keturah* a daughter of *Chareph*, the son of *Ashtari* or the great *Sesostris*, *Xisuthrus*, &c., and by this marriage had two sons, *Ethian* and *Jobab*. This explains the association of *Cerberus* and *Cereyon*; of *Agamedes*, his father, and *Trophonius*; of the union of *Cercaphus* with *Cyrbie*, *Crius* with *Eurybia*, *Charaxus* with *Rhodope*, *Khem* and *Harka* with *Thriphis*; and the descent of *Cherucheres* from *Usecheres* II. *Triopas* and other similar names associated with unmistakable traces of *Zerach*, set forth the same fact. I am thus able to add to previous genealogies the following:



*Cercasorus*, opposite the *Athribite* nome, is a record of *Zerach* in connection with his wife *Thriphis*. His family is *Sabellian*, *Hellenic*, *Dorian*, *Achæmentan*. *Edomite* monarchy, or rather the monarchy which arose upon the borders of *Palestine*, *Arabia* and *Egypt*, dates from but one generation before the time of *Zerach's* son *Jobab*, *Bela* the son of *Beor* being his predecessor and its founder. This *Bela* was in all probability the King of *Zoar* in the days of *Abraham*, and the Egyptian *Belus* who is said to have fled from *Salatis* into *Arabia*. *Herophile*, whom I have already identified with *Eriphyle*, is made a daughter of *Lamia* (*Lechem*), and is said to have been born at *Corycus* (*Zerach*). Paus. x. 12.

## A CALIFORNIA BORAX DEPOSIT.

BY W. HODGSON ELLIS, M.B.

*Read before the Canadian Institute, February 19th, 1876.*

The borax of commerce has long been derived almost exclusively from the boracic acid of the Tuscan *soffioni*; the discovery in California of a large deposit of native borax or "*tincal*" bids fair to modify in some measure the trade supply of this article.

In San Bernardino County, California, is the bed of a dry lake, which is covered with a dirty gray deposit, consisting of borate of soda mixed with sulphate and carbonate of soda and chloride of sodium. In some places native borax or *tincal* is found nearly pure in large crystals.

Through the kindness of Mr. John Ledyard, formerly of Toronto, who has been employed at the works, I have received specimens of the crude borax and also of the purified products. To him I am also indebted for the following particulars:—

The crude material is carted to the works, dissolved in water, and boiled down till the liquid has attained a density of 1.16. It is then run from the boiler into "settlers," where it is left for about eight hours. At the end of this time the clear liquid is run off and allowed to crystallize, either in tanks or in long, narrow, shallow vessels, called *flumes*. The product of this operation is called "concentrated borax," and sells at seven cents per pound. "Refined borax" is made by re-dissolving the "concentrated" borax and re-crystallizing it in the tanks. It sells for nine cents per pound.

An analysis of Californian refined borax, given in the *Chemical News*, December 17th, 1875, is as follows:—

Crystallized baborate of soda.....	99.75
Chloride of sodium .....	0.25
	100.00

Mr. Ledyard's sample yielded to my analysis:—

Crystallized baborate of soda.....	99 70
Chloride of sodium .....	0 30

An analysis of the crude borax gave me the following results:—

Sodium baborate .....	39 23
Sodium sulphate .....	8 46
Sodium carbonate.....	2 77
Sodium chloride .....	14 23
Calcium carbonate .....	3 57
Alumina and ferric oxide .....	0 33
Silica and sand .....	23 34
Water.....	8 07
	100 00



## AN ADDITIONAL NOTE ON THE FUNCTION OF SALT IN SEA WATER.

BY E. J. CHAPMAN, PH.D.,

*Professor of Mineralogy and Geology in University College, Toronto.*

More than twenty years ago, the author submitted to the CANADIAN INSTITUTE an original view respecting the function of the saline components of the sea. This view was to the effect that the essential function of the salinity of the sea is to regulate evaporation. Fresh water, it was shewn, evaporates far more rapidly than salt water; and, as regards the latter, the stronger the salinity the slower the evaporation—other conditions, of course, being equal.

In the natural evaporation of the waters of the sea, two antagonistic forces are at work: the absorbing power of the air, and the resisting power of the sea. If one of these powers increase or diminish in intensity, the intensity of the other increases or diminishes also.



If the absorbing power of the air (by increase of temperature or other cause) increase in strength, the effects of this increase become controlled and rapidly neutralized by the stronger resisting power imparted to the water by its increased degree of saltiness. If, on the other hand, the absorbent power of the air become weakened (by excess of rainfall, diminution of temperature, &c.), evaporation becomes assisted by the weaker resistance of the water. These compensating effects, it is contended, are due essentially to the presence of saline matters in the waters of the sea.

The original experiments published on this subject in 1855—although sufficiently exact to establish the striking difference which the evaporation of fresh water exhibits as compared with that of sea water—contained a source of error arising from the form of the vessels employed, and partly from the evaporating surface of the liquids not having been kept constantly at the same level. As the surface of the fresh water soon occupied a lower level than that of the other liquid, it necessarily became protected to a greater degree from the action of the atmosphere: and thus the evaporation from it (although always greater than the evaporation from the salt water) was somewhat less than it should have been. Experiments of this kind can scarcely be rendered absolutely faultless, but in after trials these sources of error were remedied as far as possible. The annexed results are from one of these trials extending over seven comparatively warm days:—

Periods of 24 hours.	Distilled Water. Loss per cent.	Sea Water. Loss per cent.	Differences.
1	14.52	13.96	0.56
2	13.64	13.05	0.59
3	11.86	11.22	0.64
4	15.43	14.71	0.72
5	15.78	14.97	0.81
6	13.93	13.03	0.90
7	13.55	12.54	1.01

The function of regulating evaporation, thus attributed to the saline condition of sea water, may not seem at first thought to be a very important one; but, in its results, it is probably the most important of all the natural phenomena of which the ocean is the stage. The moisture of the earth, it is well known, comes essentially from the sea. The salt-free vapour, taken up by evaporation from the surface

of the sea, is wafted sooner or later to the land; and there becoming condensed by contact with the cold of mountain chains, by tree-covered districts, and other recognized agencies, it falls in the form of rain, &c.; and, finally, after fulfilling its manifold functions, it becomes returned, for the greater part, by the natural drainage-channels of the earth—the brooks and streams and brimming rivers—to the sea from whence it came. If any prolonged cause of disturbance, therefore, affected the process of evaporation as carried on betwixt the air and sea, the earth throughout broad areas, if not throughout its whole extent, would necessarily suffer by the reaction—either from a want of rain, or a deficiency of moisture in the atmosphere; or from unripened harvests and inundations of the land occasioned by excess of rainfall. The saline condition of the sea evidently serves as the main controlling power to disturbances of this character.

Teleology is terribly out of fashion, nowadays, in scientific thought. The author should perhaps apologize, therefore, for attempting to recall attention to a subject of this kind. But without being in any way an opponent of “advanced views” generally, one may still hesitate to regard the wonderful balance of natural forces, seen almost everywhere in the cosmic infinity around us, as nothing more than merely a fortuitous result.



SOME CANADIAN NOMS-DE-PLUME IDENTIFIED:  
WITH SAMPLES OF THE WRITINGS TO WHICH THEY  
ARE APPENDED.

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BY HENRY SCADDING, D.D.

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(Continued from page 276.)

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We now come to our political *noms-de-plume*.

Canada, both in its French and its English portions, has had a troubled history. With a very mixed population, teeming with a variety of clashing prejudices, brought with them or inherited from the Old World, governors sent out by the parent state to guide their destinies, to amalgamate them into one mass, to mould their character into a national consistency, have found, especially in years bygone, that their task was not an easy or a trifling one; and whatever their line of conduct, they were sure to be criticized with severity by one coterie or another in the community. Here, as elsewhere, the newspapers and other local periodicals have been vents for the spleen of individuals; and as at early periods in Canada, Upper and Lower, men in power held it to be proper to stand on their dignity more punctiliously than they do now, it was not quite safe for writers to come out with their strictures *in propria personâ*. Consequently, the local periodicals of the day abound with objurgatory communications under the fictitious signatures usually adopted in the newspapers and periodicals of the same period in Great Britain and Ireland. And when I say in former days men in power were specially touchy, I include in the expression the Houses of Assembly themselves, which were very ready to summon offenders before them for verbal breaches of privilege. Thus Mr. Cary, editor of the *Quebec Mercury*, was sent for by the Lower Canadian House, in 1813, for publishing a communication signed "Juniolus Canadensis," an invective, in the style of Junius, against Mr. Stuart, a member of the House. Mr. Cary absented himself from the city during the remainder of the Session, and so eluded the search of the Serjeant-at-Arms. But the

day after the prorogation the following Card appeared in the *Mercury*: "The Editor's respects to a majority of the House of Assembly. Being just arrived from a tour of business, he learns that the House had evinced much anxiety to see him during his absence. Unfortunately, his return has taken place a day too late for him to have the honour of waiting on the House. He is, however, rather at a loss to conceive how his presence could be in any manner useful in assisting them in their vocation of framing laws."

It would be, of course, an endless and unprofitable undertaking to trace the authorship of the great bulk of pseudonymous productions in early Canadian journals on political subjects. But one *nom-de-plume* which appeared in the columns of the *Montreal Herald*, in the years 1813-15, presents exceptional claims to consideration. The signature of VERITAS has become historical. Moreover, it possessed for a time an additional degree of interest from the slight mystery and uncertainty which attached to it, the author having taken some pains, as I suppose, to maintain an incognito. As all persons concerned have long passed off the scene, no harm will be done now if I remove the veil, as I shall do presently, and for the first time since an uncertainty on the subject sprang up.

Sir George Prevost was the Governor-General of Canada and Commander-in-Chief of the Forces in 1812, when the war broke out between Great Britain and the United States, and the letters of Veritas are devoted to an adverse criticism of Sir George's military tactics throughout the unnatural contest. In many of the subsequent accounts of the war of 1812, Veritas is quoted as an authority, but I do not observe anywhere that the real name of the writer is mentioned. It became, in fact, as we shall see, almost irretrievably lost. So late as 1855, after all reason for secrecy had passed away, Auchinleck, in his "History of the War, '12, '13, '14," defends Sir George Prevost against the strictures of the shadowy Veritas. "Veritas observes," he says, "that it is the acme of assurance to insinuate that the [British] Ministry were to blame for the insufficiency [of force in the two Provinces at the outbreak of the war], especially as they could only have a knowledge of our wants through Sir George's information. Now, how in justice," Auchinleck asks, "can Sir George be blamed for not informing Ministers of his requirements for a war which he was instructed [by that Ministry] by all the means in his power to avoid the promotion of? In his anxiety to attack the

movers of the address [to Sir George, on his departure from Quebec] in reference to the war, Veritas has suffered himself to go to the verge of injustice." Again, in Col. W. F. Coffin's admirable and eloquent work, entitled "1812; or the War and its Moral: a Canadian Chronicle," it is observed, "If York (Toronto) had been left defenceless and unprotected; if a ship of war in the hands of the shipwright had been recklessly exposed to destruction, the fault was not with Sheaffe nor with his direct superior, Sir George Prevost, as charged by Veritas, but with the authorities in England, who trifled with the emergency until too late, and then spent treasures in life and money to repair an irreparable error."

In Tupper's "Life and Letters of Major-General Sir Isaac Brock," Veritas is also largely quoted, but in the same abstract way. The author of an article in the *Quarterly Review* of July, 1822, headed "Campaigns in the Canadas," evidently knew who Veritas was; but he refrains from naming him. "The Letters of Veritas," the writer says, "were originally printed in a weekly paper published at Montreal, in Lower Canada, and subsequently collected in the little volume before us. Within a small compass," the reviewer continues, "these unpretending letters contain a greater body of useful information upon the campaigns in the Canadas than is anywhere else to be found. They are, we believe, the production of a gentleman in Montreal of known respectability. Though not a military man, he enjoyed the best opportunities for acquaintance with the circumstances of the war; and as these letters, which excited great attention in the Canadas, appeared in successive papers while Montreal was filled with almost all the officers of rank who had served in the country, it may reasonably be presumed that his errors, had he committed any, would not have escaped without censure; yet no reply was ever attempted to his statements—no doubt ever expressed in the provinces of the correctness of his assertions." My curiosity, a few years since, having become aroused as to the identity of Veritas, it came to be with me, for a time, a kind of Junius-question which I sought to solve: for a long time, but not, finally, without success. I searched in vain in the useful works of Mr. H. J. Morgan, of Ottawa, the compiler of "Sketches of Celebrated Canadians," and the *Bibliotheca Canadensis*; but I found no clue. I interrogated the late Rev. Dr. Richardson on the subject (he, in his younger days, lost an arm while actively serving in a naval capacity in one of the expedi-

tions ordered by Sir George Prevost). I addressed notes to several gentlemen who had interested themselves in early Canadian history, but without result. Amongst them, especially, I applied to Col. Coffin, above-named, but after inquiry instituted, he could afford me no help. Inquiries were also made for me of the present proprietors and publishers of the *Montreal Herald*. I thought that possibly among the traditions of the office of that paper the name of its now historical contributor might be preserved. Mr. Penny, the present editor of the *Herald*, kindly endeavoured to get the desired information from Mr. Archibald Ferguson, a gentleman now aged more than ninety years, formerly proprietor of *Herald*. Mr. Ferguson's reply, however, now lying before me, was as follows:—"In answer to your note of the 17th instant, I beg to inform you that I do not know who wrote the articles signed Veritas and Nerva, in 1815. They were published nine years before I purchased the *Herald* establishment, and the two former proprietors were dead before I purchased." (I had coupled my query about Veritas with one about a writer styling himself Nerva, also in the *Herald*; but Nerva I discovered afterwards by accident, while looking through the articles in Mr. Morgan's *Bibliotheca Canadensis*.) How I came at length to recover the all but totally forgotten authorship of the Veritas letters, I will detail concisely after I have given a sample or two of the productions themselves. I add the reflection: if in so short a period an uncertainty so decided could spring up in regard to writings whose authorship was probably notorious to contemporaries, how easy it must have been, in the days when printing was unknown, and when of many an important record no duplicate existed, for ambiguities to arise on such points; how easy it must have been, at the dictate of policy or ambition, to falsify and substitute, with small chance of explicit detection at the hands of posterity.

Veritas, throughout his letters, inveighs against Sir George Prevost for an apparent lack of energy, decision, and dash. But we must bear in mind what Auchinleck has said, as quoted just now, that Sir George was probably under restraint from the instructions which he had received from the Ministry at home, who had no relish for the contest in which they found themselves engaged. "Towards spring, 1814, so inveterate," Veritas says, "was Sir George's rage for armistices, notwithstanding the injurious consequences of the former to the military service, that a negotiation for another was set on foot,

and defeated solely from the refusal of our admiral on the American Station to concur in it. The Americans gave out that the proposition came from Sir George, which I believe, because otherwise he would have met it at once by a direct negative that would have ended all discussion on the subject. In January, 1814, whilst the Legislature was sitting at Quebec, Sir George made a trip to Montreal, from no military motive that has ever been discovered or assigned, during which the then Assembly were active in preparing mischief. That Session was a stormy one, and ending in March, the Head-Quarters were retransferred to Montreal. \* \* \* \*

Soon after the navigation opened upon Lake Champlain, Capt. Pring, in the naval command there, sailed from Isle aux Noix with our flotilla, then superior to that of the enemy, which had wintered in Otter Creek, where they had a ship-yard employed in constructing a force intended to surpass ours. Capt. Pring, in consequence, applied to Sir George for some troops to accompany him, with a view of attempting to destroy this establishment and the vessels in that creek, whether afloat or upon the stocks, which, next to Sackett's Harbour, was an object worth a trial at some risk. As usual, the application was refused. When Capt. Pring returned from his cruise up that creek, he reported to Sir George what might have been done by a joint attack, and then he was offered assistance, but the Captain replied that it was then too late, as the enemy had taken alarm and prepared accordingly. Sir George had the extraordinary fatality of either never attempting an active operation, or of thinking of it only when the time for practical execution was past."

Here is a passage which, for style, may remind us of Kinglake or Sir William Napier; the incidents referred to will also probably interest us. "As the season for action advanced," Veritas says, "to the astonishment of everyone, there was formed at Chambly what is called a Camp of Instruction, comprising the greater part of the force above enumerated, and from which might and ought to have been detached a force for the attack of Sackett's Harbour, or for the reinforcement of the Niagara frontier, seriously threatened as it then was (1814) with invasion, in the opinion of every person who had eyes to see or ears to hear. Had the first-mentioned object been attained, the enemy would not have ventured to cross into Upper Canada; or if Sir George was obstinately bent on letting Sackett's Harbour alone, the reinforcement of the Niagara frontier became the more imperiously

necessary to secure it against the enemy's accumulating force, which had been even seen by some of our officers in returning from captivity, but whose reports thereon were utterly disregarded. Thus the Camp above-said furnished the means of instruction to the enemy upon the said frontier, by allowing them to practise against our very inferior force; but of destruction to our troops there employed, who were thereby doomed to combat against fearful odds, as will be seen hereafter, which is quite inexcusable, seeing we had the means of prevention in our power; for so infatuated was Sir George that not a man was sent from Lower Canada to their aid until the 12th July, after our first disaster at Chippewa was known. \* \* \*

From the end of May, reinforcements from Great Britain, Ireland and the West Indies came in; but the accursed Camp of Instruction continued; when to our astonishment, in June and July, such a numerous body of troops arrived from Bordeaux that it became evident Sir George was quite bewildered thereby. Piecemeal reinforcements were now despatched to Upper Canada, and a very large force kept below to do something—but what it was remained doubtful, although a bustle of preparation began across the river, which was continued for months at infinite expense." I add one more passage: an indignant, Junius-like denunciation of certain speeches in the House of Commons, notably one by Mr. Whitbread, on the subject of the destruction of the public buildings at Washington by a British force, in which speeches more feeling was apparently shown for the loss experienced by the United States Government than for the sufferings of British subjects when violently deprived of their homes and property at York and Niagara, a few months previously, by an invading United States army. "Now, is it possible to conceive," Veritas asks, "that all these and former acts of conflagration and pillage could have happened without orders from the American Government? And yet if we had retaliated upon this principle in the Chesapeake, or elsewhere (which was completely in our power to have done), what an outcry would have been raised by Mr. Madison, and re-echoed by the Opposition in the Imperial Parliament, who, on finding themselves beat from their grounds of censure against our Government and officers for the destruction of the public buildings at Washington, when proved to have been merely retaliatory, then took up a new position equally untenable, viz., that it would have been magnanimous not to have followed the example of the Ameri-



cans in their conduct at York and Newark. Now, in common sense, what does such doctrine mean? Do these mock-patriots reserve all their sympathies for the enemies of their country, and regard with callous indifference the sufferings of their fellow-subjects? Are the latter not entitled to protection and consideration; and as means of that protection, was it not incumbent upon our officers, and a point of justice, to turn against the enemy their own weapons, and thereby make them feel the consequences of their own enormity of conduct, with a view to prevent their repeating the like in future? It is very magnanimous, to be sure, to speak with cold-blooded indifference about the infliction of ruin upon friends, at the distance of 3,000 miles, by fire and devastation in the most aggravated shapes; but I will venture to say that if Mr. Whitbread's brewery and his princely mansion, with all their contents, had been at York or Newark, and shared the fate of the buildings there consigned to the flames by the enemy, we should never have heard of his lecture upon the virtue of magnanimity."

It was by the aid of Sir Francis Hincks, now resident in Montreal, that my curiosity in regard to Veritas was at length gratified. Sir Francis took much interest in the inquiry, when it chanced to be proposed to him; and he kindly applied for me to the present authorities of the *Herald* office, with the result already mentioned. When now I supposed nothing further would come of the investigation, I unexpectedly received from Sir Francis the following communication, which sets the question at rest. The note is dated Montreal, 15th July, 1873. "By a very singular accident," Sir Francis writes, "I obtained a few moments ago the information which you wanted a few weeks since. Coming into town this morning, I met Mr. J. S. McKenzie, one of our oldest and wealthiest citizens, lately a Director of the Bank of Montreal, and senior partner of one of our principal firms. He was talking of his age, and as having served in the war of 1812. It immediately occurred to me that he might know who Veritas was; but at the moment I had forgotten this signature, and was only able to ask if he recollected a criticism on Sir George Prevost's operations. 'Certainly,' he said, 'it was signed VERITAS, and was written by the Hon. John Richardson, with whom I was a clerk in the old house of Forsyth, Richardson & Co.' Mr. Richardson was a very likely man to have written such an article," Sir Francis adds, "and Mr. McKenzie was quite clear on the point. I think,

therefore, you may be satisfied. I had overlooked Mr. McKenzie, who is one of our octogenarians."

The most concise way in which I can explain who Mr. Richardson, the writer of the letters signed "Veritas" was, will be to copy the inscription on a marble tablet on the outer wall of the "Richardson Wing" of the General Hospital at Montreal. It reads as follows:— "This building was erected A.D. 1852, to commemorate the public and private virtues of the Hon. John Richardson, a distinguished merchant of this City, and Member of the Executive and Legislative Councils of the Province. He was the first President of this Hospital, and a liberal contributor to its foundation and support. He was born at Portsoy, North Britain, and died 18th May, 1831, aged 76 years."

Veritas closes his series of letters with this paragraph: "It was my intention to have given also a sketch of Sir George's civil administration; but reflecting that it has been already so ably depicted by NERVA, in his admirably written allegory, I shall for the present not prosecute that intention." The "allegory" of Nerva was contained in a series of letters, professedly on Irish affairs, addressed to the *Herald*, in which Canada was adumbrated by Ireland, Sir George Prevost by Earl Fitzwilliam, and Sir George's predecessor, Sir James Craig, by Lord Westmoreland. Sir George's marked policy of conciliation as a civil governor is therein roundly condemned, but evidently from the point of view of a narrow conservatism: a policy, it must be remembered, enjoined by Sir George's masters in England, with distinct reference to the immediate crisis, when Canada was about to be exposed to an invasion, and required for its safety a people, so far as possible, united. "Between two systems of government proposed for adoption," Nerva observes, "theorists may often find it difficult to determine the claims to preference; because the peculiar defects of each may be compensated by peculiar advantages; but where a system of government is already established, there are certain rules for its exercise from which the experience of practical politicians will pronounce all deviation to be improper and hazardous. Of these rules, the most universally admitted is, that all changes should be gradual, not abrupt; should be necessary, not experimental. But Earl Fitzwilliam began his innovations upon his entrance into office, without waiting to ascertain whether Lord Westmoreland's measures were adapted to the situation of the country; without in-

deed knowing what the situation of the country required, or whether a sudden change, even from what might originally have been improper, would not produce greater evil than that which it should be intended to correct. His proper path had indeed been marked out for him, and every obstruction and difficulty removed by Lord Westmoreland, whose labours, had they been turned to advantage, would have enabled his successor to pursue, with perfect ease and safety, a course at once consistent with his own honour and with the dignity of his government. Yet these advantages were overlooked or despised by the Earl, who, like some rulers in whom vanity has predominated over judgment, disdained to govern in any respect according to the prescription or example of another. In consequence, he was speedily surrounded by men of principles avowedly inimical to the just and long-established prerogatives of the Crown, who were the objects of his peculiar notice, and most graciously received at his table and his court. Situations of trust and power were accumulated upon individuals unknown before in departments of State, and incapable as well as regardless of the performance of their official duties; while their rapacity was so insatiable as to force from the unwilling Viceroy himself the observation, that if England and Ireland were given to them as estates, they would ask for the Isle of Man as a kitchen garden. A viceroy, with the assistance of associates, dependants and companions of so unusual a cast, it would be natural to expect would differ in principle and in action from most representatives of royalty. And the event fully justified the expectation. The conciliation of the worthless became his primary object; and concession was considered the principal means."

Nerva, whose letters, like those of Veritas, were re-published in a collected form, after their appearance in the *Herald*, was Mr. Justice Gale, who died at Montreal in 1865. These productions thus acquired a more than temporary circulation and influence. In regard to the strictures of Veritas, we read among the miscellaneous editorial matter of the *Herald* of August 12th, 1815, the following item: "Persons living at a distance are informed that the whole of the impressions of 'VERITAS Letters' are sold. We give this notice in order to save correspondents the expense of postage. We understand an edition is now printing at Halifax. Veritas was uncommonly well received in that city."

The editor and printer of the *Herald* were both prosecuted by the Government. In the number of that journal for March 11, 1815,

we have the announcement that "On Monday last [this would be March 5] the Grand Jury for this District found a bill of indictment against the printer of this paper for a libel on the Commander-in-Chief. On Wednesday [this would be the 7th], two bills were found against the Editor for the *same offences*. To all the charges contained in the indictments the defendants pleaded *Not Guilty*. They readily found security to appear in another term for trial." We have no notice given us in subsequent journals of the issue of the prosecution. It may have been dropped in consequence of the death of Sir George Prevost in January, 1816.

Mr. Mungo Kay, the editor, and Mr. W. Gray, the printer, did not betray the confidence placed in them by the pseudonymous writers in their journal, except in one instance. It happened that Mr. Sewell, the Solicitor-General, whose duty it became to conduct the proceedings against the alleged libellers, had himself on two occasions, under the non-de-plume of Colonist, contributed articles to the *Herald* which could be interpreted as censure on the Commander-in-Chief. As, in the opinion of the editor and printer, Mr. Sewell exhibited an over-zeal in pressing the case against them, by summoning the employes of the printing office to give evidence, they considered themselves at liberty to disclose to Sir George Prevost the authorship of the particular articles referred to, and this led to the removal of Mr. Sewell from the Solicitor-Generalship. The result of the prosecution was thus probably more serious to him than to any one else; his official advancement receiving on the occasion a fatal check.

Contemporary with *Veritas* and *Nerva* in the volumes of the *Herald* was a writer who signed himself *Le Bon Vieux Temps*. He was an exponent of the views of the loyally-disposed French Canadians in regard to the politics of the day. I have not been able to trace satisfactorily the authorship of the letters thus subscribed. They have been attributed to a Viger and a Quesnel.

In 1843 Sir Charles Metcalfe succeeded Sir Charles Bagot in the Governor-Generalship of Canada. Responsible Government had not long been conceded; and the Governors themselves had not yet quite cordially come into the system. Their view of their own responsibility to the Crown and people of England conflicted in some degree with the theory of Responsible Government as understood by Canadians. Sir Charles Metcalfe, though nominally accepting Responsible

Government, found himself in antagonism with its warmest supporters. Possessed of a strong will, he wished to rule as well as reign; and, probably, could he have had, consistently with the new theory, his own way in the management of public affairs, the common weal would not have suffered; for he was a highly-gifted, excellent, and most benevolent-minded man. But the *amour propre* of Canadian statesmen, just beginning to rejoice in the newly-acquired right of self-government, was quickly offended by Sir Charles' too frequent interposition of his own individual judgment.

Legion's letters were a sharp attack upon Sir Charles Metcalfe's mode of administering the Canadian government, and a vindication of the view taken of the reformed Canadian constitution by the Liberal party. Nominally they were a reply to a series of letters by Dr. Egerton Ryerson, in defence of Sir Charles Metcalfe's ideas; and it was during the course of this discussion that Legion fastened on his opponent the curious soubriquet of Leonidas; not, as I have seen it alleged, because his antagonist had adopted that name as a *nom-de-plume*, but simply because, when rushing to the protection of the Governor-General, he chanced to liken himself to the Spartan hero.\* I need not go further into the particulars of this renowned encounter. I will simply give a specimen or two of Legion's flowing, oratorical style. I first quote a short passage, which disposes of the *nom-de-plume* theory of the origin of "Leonidas" as a soubriquet, and also explains why Legion himself adopted the obviously objectionable signature which appears at the close of his letters: "Had he [his opponent] signed himself the Doctor, or Leonidas, or Three Hundred Spartans, or Wesley, or Fletcher, or Robert Hall, or Chalmers, I should have been spared the necessity for this letter," Legion says; "but he [his opponent] has placed his name and his former conduct before the public as bearing upon the matter at issue, and as adding weight to his arguments. I could not, therefore, as he says, pass it

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\* The passage referred to occurs at p. iv. of the Introductory Notice, dated Cobourg, May 27, 1844, prefixed to "Sir Charles Metcalfe Defended against the Attacks of his late Counselors." "Mr. Ryerson has not thought proper, under present circumstances, to accept the office of Superintendent of Education, nor has any political office ever been offered to him. And he is ready to relinquish any situation which he now fills rather than not accomplish this imperative undertaking. For if a Leonidas and three hundred Spartans could throw themselves into the Thermopylæ of death for the salvation of their country, it would ill become one humble Canadian to hesitate at any sacrifice, or shrink from any responsibility, or even danger, in order to prevent his own countrymen from rushing into a vortex which, he is most certainly persuaded, will involve many of them in calamities more serious than those which followed the events of 1837."

over; nor would it have been courteous to treat his name and his inducements as nothing. I think it a piece of misjudged egotism to mix the name of a public writer up with his arguments; it always is calculated to mislead, and at the best is loss of time and of printing materials, which now bid fair to be too much in request to be wasted. The above are my sentiments, Sir," the writer says to the editor of the *Examiner*, the journal in which the letters first appeared, "but as they are also the opinion of hundreds of thousands as good loyal Canadians, I have no right to the monopoly. I therefore, Sir, with all deference to your readers, subscribe myself your and their humble servant, LEGION—for We are Many." I now quote an elaborate discrimination between despotism and constitutional government, with an ironical statement of the merits of the former under certain circumstances, and a repudiation of the doctrine that rulers in free countries can proceed safely and satisfactorily without having regard to public opinion and considerations of party. "A party may be defined for our present purpose," Legion observes. "as a number of persons professing an opinion or opinions in which they agree; opposite parties, as two parties each respectively agreeing amongst its own members, and opposing the opinion or opinions of the other party. As the whole of a community is rarely of one opinion, the opinion of the majority, or of those forming the largest party, is, for the purpose of government, said to be public opinion; at least it is the opinion which for all practical purposes must be taken to be public opinion. What is just, and right, and good," Legion goes on to say, "may be the object of a despotic as well as of a free government. No one dreams of alleging that absolute power in the ruler is inconsistent with good government. All I need maintain is, that absolute power in the ruler is inconsistent with all our notions of free institutions. An absolute ruler may, with the best intentions, look within his own breast for the rules of right and wrong—to his own reason for his policy; and if his mind be better constituted, and his means of information greater than that of all others, his government may be better and wiser than any government influenced by popular opinion. To such a potentate, it is true praise to say of him that he possessed an inflexible determination to administer his government without regard to party, because the opinions which make parties are beneath his consideration. He judges, he thinks, he rules for himself; he puts down public opinion, for it is but an

impediment in his way ; and he rules irrespective of party, because to him public opinion is as nothing. But just in proportion as the form of a government is removed from a despotism, disregard of public opinion becomes a crime in a ruler, and ceases to be a subject for eulogy. And he who administers a Government free and popular in its form, without regard to public opinion or to party opinions, call it which we please, is a violator of the constitution he is bound to uphold, and insincere in his professions of attachment to that constitution. Swift, in ridiculing party divisions, describes the kingdom of Lilliput as divided into two parties, one of whom wore low heels to their shoes, the other high heels ; and if Sir Charles Metcalfe had been made Governor of Lilliput, he might have governed its diminutive inhabitants without regard to their heels, and have chosen his councillors from both parties indifferently, caring nothing for their disputes, and despising their party differences ; but who would allege that he was influenced by public opinion, or that he was administering Responsible Government ? It is, however, just as a pigmy people that Sir Charles has always regarded Canadians, and it is with this view that he takes to himself the praise of inflexible determination ; but the inflexible determination of a ruler under the British Constitution is national determination ; and personal determination which opposes this, is despotism. The threat to employ whatever force may be necessary to enforce it, is tyranny ; and the pretence that it is consistent with Responsible Government is hypocrisy." On Sir Charles' alleged resolve to act officially without the concurrence of his Executive Council, Legion thus remarks : " Charity may once have ascribed his invasion of the Constitution of this country to ignorance of British constitutional usage ; but time has removed the veil, and he must now be considered either as the originator, or the instrument of a design to defeat and put down Responsible Government in Canada. If Canadians value Responsible Government, they cannot give way. They must use every constitutional means of asserting their rights, till they obtain them fully. If they do not value British freedom, or if Dr. Ryerson has been able to frighten them with his bugbear of " Royal Proclamations and Military Provisions," let them kneel down and ask pardon for the presumption of their Parliament, and let the reign of favouritism and intrigue continue. If Canadians have not the spirit of British subjects, let them be the servants of servants they deserve to be ; but if they have any

wish for peace and quietness as the fruit of ignominious vassalage, let them petition for the abolition of the Provincial Parliament, which cannot exist without constantly reminding them of their degradation. There may be something noble in political slavery; but political slavery with the forms of freedom is, to all intents and purposes, wretched and utterly despicable."

The letters of Legion were from the pen of Robert Baldwin Sullivan, afterwards one of the judges of the Queen's Bench, and previously a member of successive Governments before and after the union of the Canadas. The author of the letters of Legion was wont in his younger days to contribute papers of a humorous and playful character to the literary periodicals of the day. In Sibbald's *Canadian Magazine*, published at York (Toronto) in 1833, are to be seen communications of his under the *nom-de-plume* of "Cinna." I select a passage from an amusing "Essay on Roads," by Cinna.\* "This being an introductory essay," the writer says, "it is fit that I explain that my remarks will not be confined to mere terrestrial roads; they will, indeed, be principally directed to those mental highways along which the glorious march of intellect is conducted, or rather driven with such steam-engine impetuosity. The schoolmaster is abroad, they say; and, indeed, for any use he is of, may so remain; learning is acquired nowadays without his assistance. The road to the temple of Fame has been levelled and macadamized; and there are rumours of a railway and a canal. This last, to be sure, is opposed by some old sober-sided fools, who think that the ancient institutions at the top of the hill, and which have been erected with so much labour, will slide into the deep cut which would be necessary to bring the canal down to ditch-water level; but suppose they do, who cares? Is it not better to go on a *low-path* over their ruins, than be threatened with a *hempen* one, into the other world, for trying to undermine them? When I was a little boy, my grandmother thought me a youth of talents rare when I learned my letters; and to say the truth, my talons were often made to look as rare as an Abyssinian beefsteak before I acquired so much learning. I then stuck so long in orthography, that one would think I was spell-bound. Oh! if I had only waited till now, when grown up gentlemen and ladies are taught writing in six short lessons. I might in a

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\* Of a later date is the "Cinna" of *Barker's Canadian Magazine* and the *Kingston British Whig*, understood to have been W. B. Wells, Esq., now County Judge of Kent.



week have been a literate person, and so branded by Act of Parliament. I might then, indeed, have *served* my friends, who now say I am a burden to them, with writs of *ca-re* and fiery faces, like Mr. Underhill; or perhaps I might have been an attorney and then my clients would give me instructions, and pay besides; and no one could say my education would not be finished some time or other, unless, indeed, it is possible that my aforesaid instructions might happen to be never dun! which is, it must be acknowledged, very unlikely." In the same *Canadian Magazine* are some poetic pieces from the hand of Cinna, humorous and serious, which I shall presently notice. He explains in the following manner, in one of his papers, how he first came to send the editor a communication in prose:—"I was sitting," he says, "one evening with my friend 'Sae Bald' (so the editor Sibbald resolved his name on the covers of the Magazine), who everybody knows to be the proprietor of the Magazine, and I was reciting to him, as I thought most beautifully, some cantos of my great epic poem, in which I flatter myself I have excelled most poets in making the sound agree with the sense. The canto contained a sublime and musical description of the baying of a kennel full of hounds by moonlight; and of course the verse seemed to echo the voices of the interesting animals who thus sang in concert with the music of the spheres. The passage I was reading, notwithstanding the splendour of the lunar orb, was a dark one; and I was indulging myself in the hope that I had excelled even my companion 'Sae Bald' in the obscurity of his style, when I was awakened from my pleasing dream by his suddenly interrupting me. Laying down his glass, 'Cinna, mon,' says he, 'will ye just hand me the nutmeg?' This spicy gale quite shipwrecked the bark of my dogs, and oh! how that cinnamon and nutmeg grated on my feelings? But think not, reader, that my friend does not understand and feel poetry, particularly such as mine. The truth was, I had chosen my time badly. The printer's imp stood behind his chair. 'Cinna,' said Sae Bald, 'what for do ye no gie us some prose for the Mogazeen? Yon deevil of a printer is in an unco hurry for matter, an' he says, nae matter how I get it, it maun be furnisheet directly.' 'And I suppose,' said I, snappishly, 'you cannot furnish it directly if your materials are inverse.'" I close Cinna's prose with two anecdotes which he contrives to bring in. (The "Red Lion" is still in being in Yorkville; it used to be known, from the name of the well-known proprietor and manager, as Tiers' Tavern. It should have been mentioned above

that the Underhill there named was a well-known local bailiff.) "An old acquaintance of mine," Cinna writes, "the landlord of the Red Lion, who was a jolly fellow, although his name was Tiers (what his wife's was before marriage is now forgotten, for Tiers dropped upon the word and—blotted it out for ever!), puzzled a gentleman sorely in my presence, by telling him that he, Tiers, was tired of *public life*, and must retire from the bar. And I myself," Cinna adds, "was once canvassing for a seat in Parliament, and applied to an Irish friend to let me have some wild land, *that* being considered the only qualification necessary in a member. I began by telling my friend, in the elevated and patriotic style which the election time produces, that I was desirous of having a *stake* in the country. 'Then,' says he, 'you had better go to old Ireland for that same, for the never a *steak* you'll get in this country fit to ait, for love or money.'" Outrageous puns, it will be observed, form the staple of these papers. Some playful verses from the same hand, in the manner of Hood, and similarly characterized, are to be seen also in Sibbald's Magazine. As a specimen, I give a few lines from a ballad of thirty-two stanzas. Tom Scalpel, a medical student, abstracts from a dissecting-room the head and arms of a dead body. The deed is thus described:—

"Says Tom, although the sky don't fall  
 I think I'll have a lark;  
 This kind of lark, they fly by night;  
 So Tom got out of bed,  
 And took his steel and stole two arms,  
 And bagged the subject's head;  
 Like other folks that take to arms,  
 He took to legs and run,  
 Although he heard no shot, ere half  
 His heavy task was done."

The grotesque consequences of the action are then detailed at length, in language ingeniously tortured. I observe also some graceful songs by Cinna, in the Haynes Bayly style. I select one verse:—

"The worm the rose's petals fold,  
 Gnaws at its inmost core;  
 And love that never must be told  
 Consumes the heart the more."

To these extracts I subjoin one passage, in which the writer of the Letters of Legion, and of the productions subscribed "Cinna," speaks in his own proper person. It is from an "Address on Immigration.

and Colonization," delivered in the Mechanics' Institute, Toronto, 1847. It will be seen that in 1847 he had a very clear view of the capabilities of the then almost wholly undeveloped North-West. "I dare say by this time," Mr. Sullivan said, in the course of his address, "I have established my character for being visionary and over-ardent, and impatient; but I have to lead you yet farther. Just take the map of Canada—but no! that will not do; take the map of North America, and look to the westward of that glorious inland sea, Lake Superior. I say nothing of the mineral treasures of its northern shores, or those of our own Lake Huron, but I ask you to go with me to the head of Lake Superior, to the boundary line. You will say it is a cold journey; but I tell you the climate still improves as you go westward. At the head of Lake Superior we surmount a height of land, and then descend into the real garden of the British possessions, of which so few know anything. Books tell you little of the country, and what they do say will deceive and mislead you. I tell you what I have heard directly from your townsman, Mr. Angus Bethune, and indirectly from Mr. Ermatinger, very lately from that country:—A little to the westward of Lake Superior is Lake Winnipeg, and into Lake Winnipeg runs the Saskatchewan River. It takes its rise in the Rocky Mountains, and the Lake Winnipeg discharges its waters towards and into Hudson's Bay. This river runs from west to east fifteen hundred miles without an obstruction; it is navigable for boats carrying ten or twelve tons. It runs through a country diversified with prairie, rich grass, clumps of forest, and on one of the branches of the river are coal-beds, out of which coal can be obtained by any one with a spade in his hand or, without; and the plains are covered with the wild buffalo of America. I am told that you may drive a waggon from one end to the other of the country of the Saskatchewan; and I am told, moreover, that it is superior in soil and equal in climate to any part of Canada, and that it produces wheat, barley, oats, potatoes—in short, all the crops of temperate climates—in abundance." Now that Manitoba has been organized, and a beneficent civilization is beginning to spread itself thence far out over the broad Saskatchewan valleys, destined soon to meet influences of a similar kind emanating from British Columbia, the forecasts of a thoughtful, ardent mind in regard to these regions some thirty years ago are interesting to read; and they may help us to realize and measure the progress—material, social, and moral—which has been made in that interval of time.

# SYNOPSIS OF THE FLORA OF THE VALLEY OF THE ST. LAWRENCE AND GREAT LAKES,

WITH DESCRIPTIONS OF THE RARER PLANTS.

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BY JOHN MACOUN, M.A., *Botanist to the Geological Survey.*

AND

JOHN GIBSON,\* B.A., F.G.S., F.B.S.E.

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(Continued from page 176.)

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## GERANIACEÆ.

### GERANIUM, L. Cranesbill.

#### *G. maculatum*, L. Wild Cranesbill.

Indigenous. Open woods and fields. Vicinity of Prescott (Billings). County Lanark (Gibson). Common in Central Canada (Macoun). Hamilton, Ont. (Logie). Near London, Ont. (Saunders). Western Ontario, on Lake Huron; Chippawa and Malden, Ont. (MacLagan). New Brunswick (Dr. Fowler). West of the Saskatchewan? (Bourgeau).

#### *G. Carolinianum*, L. Carolina Cranesbill.

Indigenous. Barren soil and waste places. Prescott (Billings). Quebec and Saguenay (Brunet). On gneiss rocks, River Rouge (D'Urban). Western Ontario, on Lake Huron (Gibson). Saskatchewan plains (Bourgeau). Owen Sound; Thunder Bay; Islands in Lake of the Woods; Fort Edmonton, on the Saskatchewan; Peace River, Dunvegan; Telegraph Trail, Upper British Columbia; Vancouver Island (Macoun). New Brunswick (Dr. Fowler).

#### *G. Robertianum*, L. Herb Robert.

Indigenous. Moist woods and shaded rocky ravines. New Brunswick (G. F. Mathews). Isle aux Hurons, Quebec (Holmes' Herb. McGill College). Chippawa, Malden (MacLagan). Common in Central Canada (Macoun). Mountain near Hamilton (Logie). Western Ontario (Saunders, Gibson). Whiskey and Cockburn Islands and Bruce Mines, Lake Huron (Dr. Bell). Head of Goulais Bay, Lake Superior (Prof. Bell). Prince Arthur's Landing, Islands, Lake of the Woods (Macoun).

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\* It is with great regret that we have to state that, since the above was in type, the death of Mr. Gibson has been announced. In a botanizing excursion on the north shore of Lake Superior, during the vacation season of 1876, Mr. Gibson unhappily contracted rheumatic fever, which afterwards terminated fatally at Montreal. At the time of his decease, Mr. Gibson was Science Master in the Normal School at Ottawa. He was born at Bayfield, in the County of Huron, and graduated at the University of Toronto in 1872. The valuable contribution to Canadian Botanical Science, of which Mr. Gibson, conjointly with Professor Macoun, was the author, will be continued in these pages by the latter gentleman.

## ERODIUM, L'Her. Storksbill.

*E. cicutarium*, L'Her. Annual Storksbill.

Introduced from Europe. Escaped from gardens. Lake Lemab, Hastings County, Ont. (Macoun). Vicinity of Hamilton, Ont. (Logie). Vancouver Island (Macoun).

FLÆRKEA, Willd. False Mermaid.

*F. proserpinacoides*, Willd. False Mermaid.

Indigenous. Marshes and river banks. Amherstburg, Ont. (MacLagan).

IMPATIENS, L. Balsam. Jewel-weed.

*I. pallida*, Nutt. P-le Touch-me-not.

Indigenous. Cedar swamps, along rills, and by springs. Niagara Falls (Macoun). Burlington Bay (Logie). St. Catharines, Ont. (MacLagan). Western Ontario, on Lake Huron (Gibson). Montreal Mountain (Dr. Holmes). Plains of the Saskatchewan? (Bourgeau). St. John's, Peace River (Macoun).

*I. fulva*, Nutt. Spotted Touch-me-not.

Indigenous. Cedar swamps, along rills, and by streams. New Brunswick (Dr. Fowler.) Quebec, St. Joachim (Brunet). Montreal Island (Dr. Holmes). Nicolet, Montreal, Chippawa, Niagara, Malden (MacLagan). Rivière du Loup (Dr. Thomas). River Rouge (D'Urban). Common in Central and Western Ontario (Macoun, Gibson, Logie, Saunders). Kaministiquia River, Lake Superior; Dawson Route; Edmonton, Saskatchewan River; Fort Assinaboine on the Athabasca (Macoun). Saskatchewan Plains (Bourgeau). British America, lat. 66° and Newfoundland (Hooker).

OXALIS, L. Wood-sorrel.

*O. acetosella*, L. Common Wood-sorrel.

Indigenous. Deep cold woods. New Brunswick (G. F. Mathews). Montreal, Port St. Francis (MacLagan). Rivière du Loup (Dr. Thomas). River Rouge (D'Urban). Quebec and Island of Anticosti (Brunet). Woods near Montreal; Portages of Black River, Three Rivers (Dr. Holmes). Northern portions of Central Canada, and Owen Sound (Macoun). Grand Island, Lake Superior (Prof. Bell). North-east coast of Lake Superior (Macoun). Maline River, Dawson Route (Macoun).

*O. stricta*, L. Yellow Wood-sorrel.

Indigenous. Copses, cultivated grounds, and river banks. New Brunswick (Dr. Fowler). Vicinity of Quebec (Brunet). River Rouge (D'Urban). Common in Central Canada (Macoun). Common in Western Ontario (Logie, Saunders, Gibson). Lake of the Woods (Macoun).

*O. coarctata*, L.

Indigenous. In cultivated grounds. Is distinguished from *O. stricta* by the presence of stipules at the base of the petioles, and its pubescent leaflets and sepals. Vicinity of Montreal (Brunet). Lake Huron (Dr. Todd, *vide* Hooker).

## RUTACEÆ.

ZANTHOXYLUM, Colden. Prickly Ash.

*Z. Americanum*, Mill. Northern Prickly Ash.

Indigenous. Water-courses, shores and low rich woodlands. Vicinity of Montreal; Isle aux Noix (Brunet). Vicinity of Ottawa (Billings). Common

in Central Canada (Macoun). Common in Western Ontario (Gibson, Saunders, Logie). Chippawa, Navy Island, Thorold, Malden (MacLagan).

## ANACARDIACEÆ.

## RHUS, L. Sumach.

*R. typhina*, L. Staghorn Sumach.

Indigenous. Hillsides, thickets. New Brunswick (Dr. Fowler). Temiscouata, Quebec, Three Rivers, Canada West (MacLagan). Vicinity of Grenville (D'Urban). Village of Beaupré, Quebec (Brunet). Common in Central Canada and Owen Sound (Macoun). Vicinity of London (Saunders). Hamilton (Logie). County Huron (Gibson). North shore of Lake Huron (Prof. Bell). Cape Smyth, Manitoulin Island; Whiskey, Cockburn and Mississagui Islands, Lake Huron (Dr. Bell).

*R. glabra*, L. Smooth Sumach.

Indigenous. Barren grounds, rocks. Vicinity of London (Saunders). Amherstburg (MacLagan). Abundant near Belleville, Ont.; Lake Nemikin, Dawson Route (Macoun). Saskatchewan Plains (Bourgeau).

*R. copallina*, L. Dwarf Sumach.

Indigenous. Rocky places. The Thousand Islands, River St. Lawrence (Rev. J. K. McMorine). Barren places, Canada (Torrey and Gray).

*R. Toxicodendron*, L. Poison Ivy. Poison Oak.

Indigenous. Thickets and low grounds. New Brunswick (Dr. Fowler). River Rouge, abundant (D'Urban). Quebec, St. Joachim (Brunet). St. Johns, Nicolet; Chippawa, Malden (MacLagan). Abundant in Western Ontario (Logie, Saunders, Gibson). Eastern Ontario (Billings). Abundant north shore of Lake Huron, and east coast of Lake Superior (Prof. Bell). Abundant in Central Canada; Owen Sound; Sturgeon Lake, Dawson Route; Fort Edmonton, on the Saskatchewan (Macoun). Saskatchewan Plains (Bourgeau). Cape Smyth, Grand Manitoulin; Whiskey, Cockburn and Mississagui Islands, Lake Huron (Dr. Bell). Montreal Island (Dr. Holmes).

*R. aromatica*, Ait. Fragrant Sumach.

Indigenous. Dry, rocky soil. Abundant along the Rivers Moira and Trent, Ont. (Macoun). Banks of Niagara and Detroit Rivers (MacLagan). Wolfe Island, opposite Kingston; Whiskey Island, Lake Huron (Dr. Bell). Saskatchewan River (Hooker). Maline River, Dawson Route (Macoun.)

## VITACEÆ.

## VITIS, Tourn. Grape.

*V. cordifolia*, Michx. Winter Grape. Frost Grape.

Indigenous. Thickets and river banks. Quebec, Isle of Orleans (Dr. Thomas). Lake St. John (Brunet). Nicolet, Quebec; Malden (MacLagan). Common in Eastern Ontario (Billings). Common in Central Canada (Macoun). Common in Western Ontario (Logie, Saunders, Gibson). Island of Montreal (Dr. Holmes). Dufferin, Manitoba (Dawson).

*V. cordifolia*, Michx. Var. *riparia*, Gray.

Indigenous. Thickets and river banks. Vicinity of Collingwood, Ont. (Macoun). Vicinity of Hamilton (J. M. Buchan). Rivière aux Sables, Western Ontario (Gibson).

## AMPELOPSIS, Michx. Virginian Creeper.

*A. quinquefolia*, Michx. American Ivy. Woodbine. Virginian Creeper.

Indigenous. Low, rich grounds. Rocks at Gross Isle, Quebec (Brunet). Abundant, River Rouge (D'Urban). Common in Eastern Ontario (Billings). Abundant in Western Ontario (Gibson, Logie, Saunders). Niagara District (Maclagan). Common in Central Canada; Owen Sound; 15 miles up the Kaministiquia, Lake Superior; New Portage, Dawson; Route (Macoun). Montreal Island (Dr. Holmes). Lake of the Woods (Dawson).

## RHAMNACEÆ.

## RHAMNUS, Tourn. Buckthorn.

*R. catharticus*, L. Common Buckthorn.

Introduced. Cultivated grounds. Castleton, and vicinity of Belleville, Ont. (Macoun).

*R. alnifolius*, L'Her. Alder-leaved Buckthorn.

Indigenous. Cold swamps and meadows. St. Croix, Quebec (Brunet). New Brunswick (Dr. Fowler). Rivière du Loup (Dr. Thomas). Wolfe Island and Niagara Falls (Maclagan). Common in northern portions of Eastern Ontario (Billings). Frequent in Western Ontario (Logie, Saunders, Gibson). Common in Central Canada; Owen Sound; Woods near Pic River, Lake Superior (Macoun). Cockburn Island, Lake Huron (Dr. Bell). Montreal Island (Dr. Holmes). Saskatchewan Plains (Bourgeau). Koolanie Pass (Dawson).

## CEANOTHUS, L. New Jersey Tea. Red-root.

*C. Americanus*, L. New Jersey Tea.

Indigenous. Dry wood lands. Vicinity of Prescott (Billings). Kingston, Niagara, Malden (Maclagan). Abundant near London, Ont. (Saunders). East Flamboro, Ont. (Logie). Dry soils, Hastings and Northumberland Counties (Macoun). Saskatchewan Plains (Bourgeau).

*C. ovalis*, Bigelow. Oval-leaved Ceanothus.

Indigenous. Dry rocks. Rocky places, Canada (Torrey & Gray). Near Shannonville station, Ont.; St. Norah's Island, Peterborough County; very abundant twenty miles up the Kaministiquia River, Lake Superior; Sturgeon Lake, Dawson Route (Macoun). Gore Bay, Grand Manitoulin Island, Lake Huron (Dr. Bell).

## CELASTRACEÆ.

## CELASTRUS, L. Staff-Tree. Shrubby Bitter-sweet.

*C. scandens*, L. Wax-work.

Indigenous. Along streams and thickets. Borders of rivers, Quebec (Brunet). Montreal Island, Chippawa, Malden (Maclagan). Vicinity of London, uncommon (Saunders). Mountain side, Hamilton (Logie). Common near Prescott (Billings). Frequent along rivers and in fields, Central Canada; also at Owen Sound (Macoun). Mamainse, east coast of Lake Superior (Prof. Bell).

## EUONYMUS, Tourn. Spindle-Tree.

*E. atropurpureus*, Jacq. Burning-Bush. Waahoo.

Indigenous. Shady woods. Upper Canada (Torrey & Gray). Malden, Ont. (Maclagan).

*E. Americanus*, L. Strawberry Bush.

Indigenous. Wooded river banks. Vicinity of London (Saunders). Hills around Niagara (Maclagan). Banks of Lake St. Clair (Douglas).

*E. Americanus*, L. Var. *obovatus*, Torrey & Gray.

Indigenous. Low or wet places. Vicinity of Hamilton, Ont. (Judge Logie.)

## SAPINDACEÆ.

## STAPHYLEA, L. Bladder-Nut.

*S. trifolia*, L. American Bladder-Nut.

Indigenous. Thickets, river banks. Vicinity of Prescott (Billings). Local in Central Canada (Macoun). Mountain side west of Hamilton (Logie). Vicinity of London (Saunders). Wolfe Island, opposite Kingston, and Malden, Ont. (Maclagan).

*ÆSCULUS*, L. Horse Chestnut. Buckeye.

*Æ. Hippocastanum*, and *Æ. glabra* are only found in cultivation.

## ACER, Tourn. Maple.

*A. Pennsylvanicum*, L. Striped Maple. Moose-wood.

Indigenous. Rich, damp woods. New Brunswick (G. ? Mathews). River Rouge (D'Urban). Common in Quebec (Brunet). Common at Rivière du Loup (Dr. Thomas). Nicolet (Maclagan). Common near Prescott (Billings). Abundant in northern parts of Central Canada (Macoun). Island east of Mississagui River, Lake Huron (Prof. Bell). Cockburn Island, Lake Huron (Dr. Bell). Goulais Point, Lake Superior; Red Bay, Lake Huron (Macoun). County Huron, Ont. (Gibson). British America, lat. 51° N. (Torr. & Gray).

*A. spicatum*, L. Mountain Maple.

Indigenous. Wet woods and cedar swamps. New Brunswick (Dr. Fowler). County of Gaspé (Brunet). Nicolet, Montreal, Bel'œil, Niagara (Maclagan). Common all along the St. Lawrence (Dr. Thomas). Vicinity of Hamilton (Logie). London (Saunders). County Huron, Ont. (Gibson). Common in Central Canada; Owen Sound, Michipicotin Island and Thunder Bay, Lake Superior; Dawson Route (Macoun). Saskatchewan Plains (Bourgeau). Hilton and Cockburn Islands, Lake Huron; west coast of Newfoundland (Dr. Bell). To lat. 51° N. (Torrey & Gray).

*A. saccharinum*, Wang. Sugar Maple.

Indigenous. Rich woods. Abundant throughout Ontario, Quebec and the Maritime Provinces. South-east coast of Lake Superior, and Thunder Bay (Macoun).



*A. saccharinum*, Wang. Var. *nigrum*, Gray. Black Sugar Maple.

Indigenous. Rich woods. Mirivin's woods, near Prescott (Billings). Nicolet (Brunet). Malden, Ont. (MacLagan).

*A. dasycarum*, Ehrhart. White or Silver Maple.

Indigenous. River valleys and banks. Common in the valleys of the Trent and Moira Rivers, and Prince Edward County; Mud Portage, Dawson Route (Macoun). Rare along the River St. Francis (Brunet). New Brunswick (G. F. Mathews).

*A. rubrum*, L. Red or Swamp Maple.

Indigenous. Swamps and wet woods. New Brunswick (Dr. Fowler). Throughout the Province (MacLagan). Rivière du Loup (Thomas). River Rouge (D'Urban). Common in Quebec (Brunet). Common in Eastern Ontario (Billings). Common in Western Ontario (Logie, Saunders, Gibson). Common in Central Canada (Macoun). Goulais Point, Lake Superior; Maline Rapids, Dawson Route (Macoun). Saskatchewan Plains (Bourgeau). West coast of Newfoundland (Dr. Bell). Centre of St. Joseph's Island, Lake Huron (Dr. Bell).

NEGUNDO, Mœnch. Box-Elder.

*N. aceroides*, Mœnch. Ash-leaved Maple.

Indigenous. River banks. Interior of Canada (Hooker). Eleven miles up the Kaministiquia, Lake Superior (Macoun). Saskatchewan Plains (Bourgeau). Island on Lake of the Woods (Macoun.) Carleton (Macoun).

#### POLYGALACEÆ.

POLYGALA, Tourn. Milkwort.

*P. incarnata*, L.

Indigenous. Dry soil. Ontario (Brunet).

*P. sanguinea*, L.

Indigenous. Barren grounds. Sandwich, Ont. (MacLagan).

*P. fastigiata*, Nutt.

Indigenous. Dry grounds. Vicinity of Hamilton (Judge Logie).

*P. Nuttallii*, Torrey & Gray.

Indigenous. Prince's Island, Ont. (Logie).

*P. verticillata*, L.

Indigenous. Dry soil. Amherstburg, Ont. (MacLagan). Plains of the Saskatchewan (Bourgeau). Boucherville Island, River St. Lawrence (Dr. Holmes).

*P. Senega*, L. Seneca Snake-root.

Indigenous. Rocky soil and sandy plains. Abundant on sandy plains in Central Canada (Macoun). Frequent in vicinity of London (Saunders). Plains of the River aux Sables, south, Lake Huron (Gibson). Prince's Island (Logie). Kingston, Niagara, Navy Island, and Malden (MacLagan). Drummond Island, Lake Huron (Dr. Bell). Saskatchewan Plains (Bourgeau).

*P. polygama*, Walt.

Indigenous. Dry sandy soil. Sandy plains, local, Central Canada (Macoun). English's woods, vicinity of London (Saunders). Lake of the Woods (Dawson).

*P. paucifolia*, Willd.

Indigenous. Light sandy soil and pine barrens. Sandy plains, common, Central Canada (Macoun). Vicinity of Kingston (MacLagan). Near Lake Medad, Ont. (Logie). Near White Fish Point, in sand around red pines (Prof. Bell). Lake Huron (Brunet). Lake Ontario (Michaux). Cockburn Island, Lake Huron (Dr. Bell). Kaministiquia River, Lake Superior (Macoun). S.skatchewan Plains (Bourgeau). Island of Montreal (Dr. Holmes).

## LEGUMINOSÆ.

## LUPINUS, Tourn. Lupine.

*L. perennis*, L. Wild Lupine.

Indigenous. Sandy soil. Scarce at Castleton, Peterborough Co. (Macoun). Very common, G. W. R. track, vicinity of London (Saunders). Plains of the River aux Sables, south, Lake Huron (Gibson). Sandwich, Ont. (MacLagan).

## TRIFOLIUM, L. Clover. Trefoil.

*T. arvense*, L. Stone Clover.

Naturalized from Europe. Old fields. Necropolis, Toronto (Macoun). Near Dundurn, Ont. (Logie) Brockville Road, near Conway's Creek (Billings). Common, Rivière du Loup (Dr. Thomas).

*T. pratense*, L. Red Clover.

Introduced from Europe. Fields and meadows. Common throughout Eastern and Central Canada.

*T. reflexum*, L. Buffalo Clover.

Indigenous. Light dry grounds. Islands in Detroit River (MacLagan).

*T. repens*, L. White Clover.

Indigenous. Fields and copses, everywhere. Both indigenous and introduced.

*T. agrarium* L. Yellow or Hop-Clover.

Introduced. Sandy fields. Between Trenton and the Carrying place, Ont., 1863 (Macoun).

*T. procumbens*, L. Low Hop Clover.

Introduced. Sandy fields and roadsides. Vicinity of Quebec (Brunet). Fields, Hamilton (Logie). New Brunswick (Dr. Fowler). Kingston (Morden).

*T. hybridum*, Alsick.

Introduced. Cultivated fields, and along fences. Is being extensively cultivated in the west instead of *T. pratense*.

## MELILOTUS, Tourn: Melilot. Sweet Clover.

*M. officinalis*, Willd. Yellow Melilot.

Introduced. Waste or cultivated grounds. River side, near Belleville, Ont. (Macoun). Near the Citadel, Quebec (Brunet). Montreal (MacLagan). New Brunswick (Dr. Fowler). Toronto (Buchan).

*M. alba*, Lam. White Melilotus.

Introduced. Waste or cultivated grounds. A weed or flower in gardens, Belleville (Macoun). Bank of the St. Lawrence, near Prescott (Billings). New Brunswick (Dr. Fowler).

## MEDICAGO, L. Medick.

*M. sativa*, L. Lucern.

Introduced. Sandy fields. Northumberland County, rare, and Owen Sound (Macoun.)

*M. lupulina*, L. Black Medick.

Introduced. Waste places. Abundant in Central Canada. Common in Eastern Ontario (Billings). Frequent in Western Ontario (Logie, Gibson). New Brunswick (Dr. Fowler).

## ROBINIA, L. Locust Tree.

*R. Pseudacacia*, L. Common Locust or False Acacia.

Introduced. Cultivated as an ornamental tree.

*R. viscosa*, Vent. Clammy Locust.

Introduced. Cultivated as an ornamental tree. Scarce. This is much smaller than the *R. Pseudacacia*.

## ASTRAGALUS, L. Milk-Vetch.

*A. Canadensis*, L. Canadian Milk-Vetch.

Indigenous. River banks. New Brunswick (Dr. Fowler). Borders of rivers near Quebec (Brunet). Montreal Island (Dr. Holmes). Prescott and Brockville (Billings). Rice Lake, Belleville on the Moira, banks of Trent (Macoun). Near Cove, vicinity of London (Saunders). Burlington Heights (Logie). River aux Sables, south, Lake Huron (Gibson). Kingston, Wolfe Island, Goat Island, Navy Island, Malden (MacLagan). Michipicotin Island, Kaminstiquia River, and New Portage, Dawson Route (Macoun). Plains of Saskatchewan (Bourgeau).

*A. Cooperi*, Gray.

Indigenous. Rocky grounds. Meyersburg and vicinity of Marmora Village; Bruce Peninsula, Ont. (Macoun). La Cloche Island and Whiskey Island, Lake Huron (Dr. Bell). Hamilton (Logie). Montreal Island (MacLagan).

*A. Robbinsii*, Gray.

Indigenous. Rocky ledges. Acadia, valley of the St. Lawrence (G. F. Mathew.)

*A. alpinus*, L.

Indigenous. Rocks and banks. Northern parts of Canada—*A. secundus*—(Michaux). Labrador coast (Butler). Island of Anticosti (Dr. Thomas). East Greenland (Hooker). Montreal Island (Dr. Holmes, *vide* Torr. & Gray). Near Quebec (Mrs. Percival). Macleod's Lake, Lat. 55° (Macoun).

OXYTROPIS, DC. *Oxytropis*.*O. campestris*, DC.

Indigenous. Dry rocky ground. Isle of Orleans; Coast of Labrador (Brunet). Baffin's Bay (Hooker). Saskatchewan Plains; Peace River Valley (Macoun). This is undoubtedly the *O. Lamberti* reported from Quebec by Mrs. Percival.

*O. podocarpa*, Gray. *Proc. Am. Acad. 1863.*

Indigenous. On rocky ground. South coast of Labrador (Gray). *O. arctica*, Hook. Fl. Bor.-Am. 1, p. 146, pro parte, non R. Brown. *Astragalus bijlorus*, Schweinitz in herb. Nearly stemless, silky; leaflets opposite and alternate, oval-oblong; heads, few flowered, the flowers somewhat umbellate; legumes erect, oblong, acuminate, and clothed with black hairs.

HEDYSARUM, Tourn. *Hedysarum*.*H. boreale*, Nutt. Northern *Hedysarum*.

Indigenous. Gravelly or rocky soil. Borders of Lake St. John (Brunet). North shore of Lake Superior (Agassiz). Labrador (Butler). From Fort Ellis to Fort Edmonton, on the Saskatchewan; Portage between Little Slave Lake and Peace River; Plains between Dunvegan and St. John's, on Peace River, abundant (Macoun). Northern Canada (Michaux). Arctic Circle (Richardson). Kotzebue's Sound (Beechey). Rocky Mountains, lat. 54° N. (Drummond).

GLYCYRRHIZA, Tourn. *Liquorice*.*G. lepidota*, Nutt.

Indigenous. Sandy banks. Fort Eric, Ont., opposite Buffalo (G. W. Clinton). Mouth of Rainy River, Lake of the Woods, and westward (Macoun). Lake Athabasca (Macoun).

DESMODIUM, DC. *Tick-Trefoil*.*D. nudiflorum*, DC.

Indigenous. Dry woods. Sandy woods, Brighton, Ont.; Oak Hills, Sidney, Ont. (Macoun). Rare in Eastern Ontario (Billings). Niagara River (MacLagan). Vicinity of Hamilton (Logie). Papineau Wood, Montreal (Dr. Holmes).

*D. acuminatum*, DC.

Indigenous. Rich woods. Common in rich woods, Central Canada (Macoun). Abundant in Eastern Ontario (Billings). Near Dundas, Ont. (Logie). Nicolet; Chippawa, St. Catharines, Malden (MacLagan). Rich woods, Bosanquet, Seaforth, Bayfield, Ont. (Gibson). St. Joachim; Foot of Little Cape, common (Brunet). Mountain of Montreal (Dr. Holmes).

*D. pauciflorum*, DC.

Indigenous. Dry sandy woods. Sandy woods, Castleton, Northumberland County (Macoun). Prescott, rare (Billings). Vicinity of Hamilton (Logie).

*D. canescens*, DC.

Indigenous. Moist grounds. Malden, Ont. (MacLagan).

*D. cuspidatum*, Torrey and Gray.

Indigenous. Thickets. Myersburgh, Northumberland County (Macoun). Vicinity of Hamilton (Buchan). Cayuga, St. Catharines and Malden (MacLagan).

*D. Dillenii*, Darlingt.

Indigenous. Open woodlands. Vicinity of Hamilton (Judge Logie).

*D. paniculatum*, DC.

Indigenous. Copses. Vicinity of London (Saunders). Hamilton (Logie). St. Catharines, Malden (MacLagan).

*D. Canadense*, DC.

Indigenous. Dry rich woods. Vicinity of Quebec; River Restigouche (Brunet). Huckleberry Rapids, River Rouge (D'Urban). Eastern Ontario, common (Billings). Nicolet, Niagara, Cayuga, Malden (MacLagan). Common in Central Canada (Macoun). Stanley Township, Lake Huron (Gibson). Island of Montreal (Dr. Holmes).

## LESPEDEZA, Michx. Bush Clover.

*L. repens*, Torr. and Gray.

Indigenous. Dry sandy soil. Upper Canada (Douglas). The Dell, Ancaster, Ont. (Judge Logie).

*L. violacea*, Pers.

Indigenous. Dry copses and borders of woods. Malden, Ont. (MacLagan). The Dell, Ancaster, Ont. (Judge Logie).

*L. hirta*, Ell.

Indigenous. Dry hillsides. Oak Hills, Sidney, Ont. (Macoun). Prescott (Billings). Prince's Island, Lake Medad, Ont. (Logie). St. Catharines, Thorold, and Queenston, Ont. (MacLagan).

*L. capitata*, Michx.

Indigenous. Dry and sandy soil. Rice Lake Plains; Oak Hills, Sidney, Ont. (Macoun). Vicinity of London, common (Saunders). County Huron, Lake Huron (Gibson). Eastern Ontario, along the banks of the St. Lawrence (Billings). Prince's Island, Lake Medad (Logie). Malden, Ont. (MacLagan).

*L. capitata*, Mx. Var. *augustifolia*, Gray.

## VICIA, Tourn. Vetch. Tare.

*V. sativa*, L. Common Vetch or Tare.

Introduced. Cultivated fields and waste places. Along G. T. R. track, Belleville (Macoun). Clay banks, east of Prescott (Billings). Vicinity of Quebec (Brunet). New Brunswick (G. F. Mathews). Common at Rivière du Loup (Dr. Thomas). Malden, Ont. (MacLagan).

*V. tetrasperma*, L.

Introduced. Waste places near the coast. Isle of Orleans (Brunet). Longueuil, Quebec (MacLagan).

*V. hirsuta*, Koch.

Introduced. Waste places. Quebec (Brunet). Common at Rivière du Loup (Dr. Thomas). Vicinity of Hamilton (Logie).

*V. Cracea*, L.

Indigenous. Fields and wastes. Rocky field near Belleville (Macoun). Common near Prescott (Billings). Common at Quebec (Brunet). New Brunswick (Dr. Fowler). Montreal Isiaud (Holmes, MacLagan). Common at Rivière du Loup (Dr. Thomas). Fifteen miles up the Kaministiquia, Lake Superior (Macoun). Fort Garry and Fort Carleton, on the Saskatchewan (Macoun).

*V. Caroliniana*, Walt.

Indigenous. River banks and lake shores, &c. Bay of Quinté, Prince Edward County (Macoun). Chippawa, Navy Island and Malden (MacLagan).

*V. Americana*, Muhl.

Indigenous. River banks and moist soil. Paris (Logie). Chippawa, Navy Island, Cayuga, and Malden (MacLagan). North shore of Lake Superior (Agassiz). Twenty miles up the Kaministiquia River and on Pic Island, Lake Superior; Shebandewan Lake, Dawson Route. Abundant all the way from Fort Garry westward to Peace River, and through the Rocky Mountains and Upper British Columbia to Quesnelle (Macoun). North to Bear Lake (Hooker).

*V. Americana*, Muhl. *Var. Sylvatica*, Mac. & Gib.

Leaflets elliptical-lanceolate, somewhat rigid, strongly reticulated; peduncles 2-5 flowered. Climbing over bushes on the banks of the Kaministiquia, 20 miles from its mouth (Macoun). Saskatchewan and westward (Hooker).

## LATHYRUS, L. Vetchling.

*L. maritimus*, Bigelow.

Indigenous. Lake and river beaches from the Gulf of St. Lawrence to Lake Superior. New Brunswick (Mathews). Rivière du Loup, Anticosti, Labrador (Brunet). West coast of Newfoundland; and Mississagui Island, Lake Huron (Dr. Bell). Presqu'île Point, Lake Ontario, and very abundant along the shores of Lake Superior (Macoun). Hamilton (Logie). Mouth of the River aux Sables, south (Gibson). Saskatchewan Valley (Eourgeau). Kotzebue's Sound and Arctic America (Richard).

*L. venosus*, Muhl.

Indigenous. Shady river banks and thickets. Whirlpool, Niagara Falls (MacLagan). Very abundant 15 miles up the Kaministiquia River, and along Rainy River, Lake of the Woods, extending westward to the Athabasca (Macoun). River St. Pierre (Dr. Holmes). West to Pacific (Macoun).

*V. ochroleucus*, Hook.

Indigenous. Rocky hill sides and thickets. Kingston and Chippawa (MacLagan). Hamilton (Logie). Rocky woods near Belleville; North shore of Lake Superior and Kaministiquia River; abundant on the Dawson Route;

thickets Saskatchewan Plains; and throughout the partially wooded country to Peace River, and west of the Rocky Mountains to the Upper Frazer (Macoun). North to Bear Lake (Rich.)

*L. palustris*, L.

Indigenous. Marshy meadows and along river banks. Abundant from Labrador and New Brunswick to the head of Lake Superior, and westward to Edmonton on the Saskatchewan (Macoun).

*L. palustris*, L. Var. *myrtifolius*, Gray.

Indigenous. Rocky banks of rivers. New Brunswick (Fowler). Lotbiniere (Brunet). Montreal Island (Dr. Holmes). Carol's Point (Logie). Chippawa (Maclagan). Bayfield River (Gibson). Banks of the Rivers Trent and Moira throughout their whole length. Colpoys's Bay, Georgian Bay (Macoun). Cockburn Island, Lake Huron (Dr. Bell).

APIOS, Boarhaave. Ground Nut.

*A. tuberosa*, Mönch.

Indigenous. Low gravelly banks of rivers. St. Nicholas, and Lotbiniere (Brunet). Montreal Island (Dr. Holmes). Marsh near Prescott (Billings). Heely Falls, River Trent, Northumberland County; near Smithville, on the Moira, Hastings County (Macoun). Vicinity of London (Saunders). Hamilton (Logie). Bayfield River (Gibson).

PHASEOLUS, L. Kidney Bean.

*P. diversifolius*, Pers.

Indigenous. Sandy fields and banks. Montreal, Malden (Maclagan).

*P. helvolus*, L.

Indigenous. Sandy fields and thickets. G. W. R. track one mile east of London (Saunders). Hamilton (Logie).

AMPHICARPEA, Ell. Hog Pea Nut.

*A. monoica*, Nutt.

Indigenous. Rich woodlands and moist thickets. Common at St. Croix and Quebec (Brunet). Along the banks of the Rouge, Quebec (D'Urban). Woods and thickets, Prescott (Billings). Common in Central Canada; 15 miles up the Kaministiquia River, Lake Superior (Macoun). Montreal Island (Dr. Holmes). Owen Sound (Dr. Bell). Prince's Island (Logie). Niagara District, and Malden (Maclagan).

BAPTISIA, Vent. False Indigo.

*B. tinctoria*, R. Br. Wild Indigo.

Indigenous. Sandy dry soil. Vicinity of Hamilton (Logie). Colchester, Sandwich, Ont. (Maclagan.)

*B. leucantha*, Torr. & Gray.

Indigenous. Rich alluvial soil. Province of Ontario, near Lake Erie (Torr. & Gray).

*B. alba*, R. Br.

Indigenous. Dry soil. Canadian shore of Lake Erie (Goldie).

## GYMNOCLADUS, Lam. Kentucky Coffee Tree.

*G. Canadensis*, Lam.

Introduced. Rich woods along rivers. Cultivated as an ornamental tree, Island of Montreal (Brunet).

## GLEDITSCHIA, L. Honey Locust.

*G. triacanthos*, L. Honey Locust.

Introduced. Rich woods. Cultivated as an ornamental tree. Belleville (Macoun). Island of Montreal (Brunet).

## ROSACEÆ.

## PRUNUS, Tourn. Plum, Cherry, &amp;c.

*P. Americana*, Marshall. Wild Yellow or Red Plum.

Indigenous. Woodlands and river banks. Common in Central Canada (Macoun). Island of Montreal; along the Ottawa (Brunet). Common in Eastern Ontario (Billings). Common in Western Ontario (Logie, Ellis). Chippawa and Malden (MacLagan). County Huron, Lake Huron (Gibson). Opposite Gros Cap, Lake Superior (Prof. Bell). Whiskey Island, Lake Huron (Dr. Bell). Owen Sound; woods at Kakabeka Falls, Kaministiquia River; Island Portage, Dawson Route (Macoun). Saskatchewan Plains (Bourgeau).

*P. maritima*, Wang. Peach Plum.

Indigenous. Sandy barrens in the vicinity of the sea coast. Quebec (Brunet).

*P. pumila*, L. Dwarf Cherry.

Indigenous. Sandy barrens. New Brunswick (Mathews). Isle of Orleans, Restigouche, River Mistassini (Brunet). River Rouge (D'Urban). Montreal, Point du Lac (MacLagan). Sandy flats of the River aux Sables, south, Lake Huron (Gibson). Rice Lake Plains; Wellington Beach, Lake Ontario; Red Bay, Lake Huron; beaches around Lake Superior; Bruillé Portage, Dawson Route (Macoun). Whiskey and Cockburn Islands, Lake Huron (Dr. Bell). Saskatchewan Valley (Bourgeau). Lake Athabasca (Macoun).

*P. Pennsylvanica*, L. Wild Red Cherry.

Indigenous. Rocky woods and thickets. New Brunswick (Mathews). River Rouge (D'Urban). Vicinity of Quebec; Lake Mistassini (Brunet). Rivière du Loup (Dr. Thomas). Common in Eastern Ontario (Billings). Common in Western Ontario (Logie, Saunders, Gibson, Ellis). Nicolet, Navy Island (MacLagan). Common in Central Canada; Thunder Bay, Lake Superior; St. Ignace Island, Lake Superior; Dawson Route, and west to Little Slave Lake (Macoun). Montreal Island (Dr. Holmes). West coast Newfoundland (Dr. Bell).

*P. Virginiana*, L. Choke Cherry.

Indigenous. River banks and thickets. New Brunswick (Dr. Fowler). Sparingly at River Rouge (D'Urban). Quebec and Charlesburgh (Brunet).



Not common, Rivière du Loup (Dr. Thomas). Common in Eastern Ontario (Billings). Common in Western Ontario (Logie, Saunders, Gibson, Ellis). Chippawa and Malden, Ont. (MacLagan). Central Canada; Kaministiquia River, Lake Superior; Mud Portage, Dawson Route; Fort Edmonton, Fort Assinaboine, Little Slave Lake, Dunvegan on Peace River (Macoun). To the Arctic Circle (Hooker). Islands in Lake Huron; Newfoundland (Dr. Bell).

*P. serotina*, Ehrhart. Wild Black Cherry.

Indigenous. Woods. New Brunswick (Dr. Fowler). Island of Montreal (Dr. Holmes). Eastern Townships (Brunet). Prescott (Billings). Hamilton (Logie). London (Saunders). Niagara, Malden (MacLagan). Bayfield River, Lake Huron (Gibson). Central Canada; Owen Sound; Kaministiquia River; Lake Superior (Macoun). Hudson's Bay; Great Slave Lake (Richardson).

#### SPIRÆA, L. Meadow Sweet.

*S. opulifolia*, L. Nine Bark

Indigenous. Rocky river banks. Common near Quebec (Brunet). Island of Orleans (Dr. Thomas). Island of Montreal (Dr. Holmes). St. Thomas (Miss Crooks). Rather rare, London (Saunders). Niagara, Malden (MacLagan). Stanley Township, Lake Huron (Gibson). Owen Sound and Red Bay, Lake Huron; abundant around Lake Superior, and 30 miles up the Kaministiquia River (Macoun). Islands in Lake Huron (Dr. Bell). Red River (Richardson). Rainy River, Dawson Route (Macoun). Thousand Islands (Macoun).

*S. salicifolia*, L. Common Meadow Sweet.

Indigenous. Wet or low grounds. Widely diffused through Eastern and Central Canada, the Western Peninsula, and westward to Fort Edmonton on the Saskatchewan.

*S. tomentosa*, L. Hardhack. Steeple Bush.

Indigenous. Low grounds. New Brunswick (Dr. Fowler). Three Rivers, Nicolet and Montreal Island (MacLagan). River Rouge (D'Urban). Common, Prescott (Billings). Lakes Partridge and Hooper, Hastings County; Addington County (Macoun).

#### GILLENIA, Mœnch. Indian Physic.

*G. trifoliata*, Mœnch. Bowman's Root.

Indigenous. Rich woods. Prince's Island, Lake Medad, Ont. (Judge Logie).

#### POTERIUM, L. Burnet.

*P. Canadense*, Gray. Canadian Burnet.

Indigenous. Bogs and wet meadows. Cacouna (Prof. Ellis.) Labrador (Butler). West coast of Newfoundland (Dr. Bell). Island of Montreal (Dr. Holmes.) Watersheds between Pacific and Arctic Oceans (Macoun).

#### ALCHEMILLA, Tourn. Lady's Mantle.

*A. vulgaris*, L.

Indigenous. Leaves radical, reniform, 7-9 lobed to about  $\frac{1}{2}$  their depth; the lobes somewhat semiorbicular, serrate throughout; flowers in terminal dichotomous corymbs.--Torrey & Gray. Labrador, S. coast (Butler).

## AGRIMONIA, Tourn. Agrimony.

## E. Eupatoria, L. Common Agrimony.

Indigenous. Borders of woods. New Brunswick (Mathews). Common at River Rouge (D'Urban). Common in Quebec (Brunet). Rivière du Loup (Dr. Thomas). Island of Montreal (Dr. Holmes). Common in Eastern Ontario (Billings). Common in Central Canada; Owen Sound; Kamistiquia River, Lake Superior to Fort Edmonton on the Saskatchewan (Macoun). Whiskey Island, Lake Huron (Dr. Bell). North shore of Lake Superior (Agassiz). Oaklands, Ont. (Logie). Central Ontario (Prof. Ellis).

## A. parviflora, Ait. Small-flowered Agrimony.

Indigenous. Woods and glades. Common near London, Ont. (Saunders). Malden, Ont. (MacLagan).

## DRYAS, L. Dryas.

## D. Drummondii, Hook.

Leaves elliptical, slightly attenuated at the base, crenate-serrate, clothed beneath, as well as the prominent veins, with a white tomentum; sepals ovate; flowers yellow. Indigenous. Gravelly beds of rivers and lake margins. Island of Anticosti (Pursh). Gaspé Peninsula (Dr. Bell). Slate Islands, Lake Superior (Prof. Ellis). Sand bars along Peace River within the Rocky Mountains, and westward to the West Road River (Macoun). In the woody country from lat. 54° to 61°, and about Slave Lake to the Arctic Sea in lat. 68° (Richardson). Rocky Mountains, lat. 52° N. (Bourgeau).

## D. integrifolia, Vahl.

Indigenous. Rocky banks along streams. Labrador (Butler). Island of Anticosti (Pursh). Mount Selwyn, Peace River Pass (Macoun).

## D. octopetala, Linn.

Leaves oblong-ovate, coarsely crenate-toothed, obtuse at each end, clothed with a white tomentum beneath, the veins prominent; sepals linear; flowers white. Indigenous. Rocky ground along rivers. Labrador (Butler). Arctic America, and Greenland to Behring's Straits (Hooker). Rocky Mountains, lat. 52° N. (Bourgeau). Stewart's Lake Mountains, B.C. (Macoun).

## GEUM, L. Avens.

## G. album, Gmelin.

Indigenous. Borders of woods in rich soil. New Brunswick (Fowler). Vicinity of Quebec; Charlesbourg (Brunet). Rivière du Loup (Thomas). Valley of the Rouge (D'Urban). Abundant throughout Ontario, from the extreme east to Owen Sound.

## Geum Virginianum, L.

Indigenous. Borders of fields in rich soil. Rare. Along the Grand Trunk Railway, at a culvert three miles east of Belleville (Macoun). Hamilton (Logie). Chippawa, Malden (MacLagan).

## G. macrophyllum, Willd.

Indigenous. Cold rocky woods. New Brunswick, common (Fowler). Rivière du Loup (Thomas). North-east shore of Lake Superior, between the

Pic and Otter Head. American Portage, Dawson Route (Macoun). Unalaska, Sitka, and North-west Coast (Toluic). Saskatchewan River, near Fort Pitt, Fort Assinaboine, on the Athabasca (Macoun).

*G. strictum*, Ait.

Indigenous. Borders of fields and in moist thickets. New Brunswick (Fowler). Near the General Hospital, Quebec (Brunet). Common at Prescott (Billings). Common in Central Canada; woods Owen Sound; up the Kaministiquia River; also at Fort Francis, and west through the Rocky Mountains down to Vancouver Island (Macoun). Hamilton (Logie). Western Peninsula, common (Gibson and Saunders). Whiskey and Cockburn Islands, Lake Huron (Dr. Bell).

*G. vernum*, Torr. & Gray.

Indigenous. Thickets and borders of woods. Malden (MacLagan).

*G. rivale*, L.

Indigenous. About springs in wet woods. New Brunswick (Fowler). Vicinity of Quebec (Brunet). St. Foy, Quebec (Thomas). Scarce at Prescott (Billings). Rather scarce in Central Canada; about springs Owen Sound; Kakabeka Falls, Kaministiquia River; Lake Shebandewan, Dawson Route; Fort Assinaboine, Athabasca River (Macoun). Sault Ste. Marie (Prof. Bell). Common at London (Saunders). Montreal (MacLagan). Labrador (Butler). West coast of Newfoundland (Dr. Bell). Extends to the Arctic Circle (Hooker). West to Stewart's Lake, B.C. (Macoun).

*G. geniculatum*, Michx.

Indigenous. Canada (Michaux).

*G. triflorum*, Pursh.

Indigenous. Rocky ground. Rocks at Trenton Station, west of the cutting; abundant at Shannonville (Macoun). Vicinity of London (Saunders). From Fort Garry, west to Edmonton, and from Smoky River, along Peace River, to the Rocky Mountains (Macoun). Saskatchewan Plains (Bourgeau).

WALDSTEINIA, Willd.

*W. fragarioides*, Tratt. Barren Strawberry.

Indigenous. Wooded hillsides. Common in Central Canada (Macoun). Common in Eastern Ontario (Billings). Common in Western Ontario (Logie, Ellis, Saunders, Gibson). Cockburn Island, Lake Huron (Dr. Bell).

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO—SEPTEMBER, 1876.  
 Latitude—43° 39' North. Longitude—81° 17m. 33s. West. Elevation above Lake Ontario, 103 feet.

Day.	Barom. at temp. of 32°.				Temp. of the Air.				Excess of Wind above average.	Fusion of Vapour.				Humidity of Air.				Direction of Wind.				Velocity of Wind.				Rain In Inches.	Snow In Inches.		
	G.A.M.		P.M.		G.A.M.		P.M.			G.A.M.		P.M.		G.A.M.		P.M.		G.A.M.		P.M.		G.A.M.		P.M.				Resul- tant.	Resul- tant.
	2 P.M.	10 P.M.	MEAN.	MEAN.	2 P.M.	10 P.M.	MEAN.	MEAN.		6 A.M.	2 P.M.	10 P.M.	MEAN.	MEAN.	6 A.M.	2 P.M.	10 P.M.	MEAN.	MEAN.	6 A.M.	2 P.M.	10 P.M.	MEAN.	MEAN.	6 A.M.				
1	29.483	29.483	29.4518	29.4518	64.7	74.4	62.5	67.65	5.12	503	649	363	426	64	61	65	65	NW	NW	NW	NW	7.6	9.0	6.39	8.49	1.26	...		
2	638	674	6088	6088	68.8	68.8	58.3	58.81	3.85	308	219	238	219	30	38	53	53	NW	NW	NW	NW	13.0	3.7	13.30	13.43	...	...		
3	690	630	6038	6038	61.0	61.0	62.0	62.00	0.62	...	...	...	...	...	...	...	...	SW	SW	SW	SW	2.2	6.6	5.65	7.47	R	...		
4	617	648	6260	6260	62.2	61.9	53.5	60.72	0.91	402	250	248	299	72	40	56	56	NW	NW	NW	NW	5.0	11.3	10.85	12.60	...	...		
5	785	815	7776	7776	46.3	65.4	54.2	56.82	4.57	210	186	259	231	77	58	63	62	NW	NW	NW	NW	10.0	18.2	4.8	10.47	...	...		
6	792	793	6916	6916	47.4	65.8	58.6	58.77	2.28	244	366	343	305	74	69	63	62	NW	NW	NW	NW	3.0	8.1	4.6	10.47	...	...		
7	619	672	6267	6267	60.4	60.4	61.4	61.43	0.71	366	448	451	425	81	73	86	78	NE	NE	NE	NE	3.1	2.0	4.86	3.16	...	...		
8	663	673	6398	6398	62.9	73.7	60.3	61.63	4.28	492	349	356	387	86	41	70	66	SW	SW	SW	SW	2.2	21.0	9.4	8.75	9.36	...		
9	665	695	7239	7239	61.6	63.2	56.7	58.28	1.70	379	396	370	331	89	63	84	79	SE	SE	SE	SE	9.0	4.8	2.74	5.25	...	...		
10	765	765	7017	7017	66.0	69.0	66.0	68.17	1.42	...	...	...	...	...	...	...	...	NE	NE	NE	NE	7.6	16.5	10.0	10.63	10.67	...		
11	674	672	6625	6625	65.0	69.1	53.1	56.45	2.75	404	410	393	406	92	70	97	80	NE	NE	NE	NE	9.5	8.5	9.0	3.35	7.44	...		
12	658	699	7216	7216	48.8	62.2	53.1	54.40	4.42	269	341	292	291	78	61	65	65	N	N	N	N	13.7	12.5	5.8	7.06	8.59	...		
13	830	857	7943	7943	49.2	61.4	62.4	64.62	3.78	294	310	327	305	85	62	83	72	N	N	N	N	6.4	12.5	9.0	3.35	7.44	...		
14	690	674	6716	6716	60.4	60.4	57.1	59.50	1.45	371	453	416	427	84	76	96	81	NE	NE	NE	NE	8.0	9.0	4.4	6.69	7.63	...		
15	691	639	6530	6530	64.2	68.3	63.0	65.97	1.35	355	260	312	291	80	37	71	61	NW	NW	NW	NW	13.0	12.0	6.0	10.58	11.03	...		
16	622	665	6937	6937	49.5	61.1	57.6	56.82	0.40	332	287	338	297	64	53	79	64	NE	NE	NE	NE	8.0	16.0	4.3	8.58	9.65	...		
17	860	860	6068	6068	63.0	68.0	64.0	64.56	2.28	476	451	416	468	97	78	89	89	NE	NE	NE	NE	6.4	17.0	19.0	12.23	12.94	...		
18	181	216	423	423	3208	68.3	63.2	58.9	69.83	3.48	...	...	...	...	...	...	...	NE	NE	NE	NE	10.0	6.3	7.0	9.41	12.10	...		
19	470	474	6009	6009	48.78	65.8	64.0	68.2	69.77	3.63	398	427	465	436	61	72	93	81	NE	NE	NE	NE	5.4	5.0	3.3	3.90	4.68	...	
20	548	682	6102	6102	64.2	65.0	67.5	69.65	1.40	371	471	441	429	92	76	93	81	NW	NW	NW	NW	3.2	10.0	5.0	4.00	4.02	...		
21	711	747	7398	7398	58.0	61.0	61.1	61.31	6.22	421	453	493	443	90	76	80	82	E	E	E	E	8.6	10.5	10.5	10.84	11.01	...		
22	745	760	7227	7227	63.2	60.6	60.6	60.61	6.85	460	451	401	484	91	78	90	86	E	E	E	E	3.2	13.1	4.8	10.01	10.05	...		
23	635	626	6072	6072	61.8	69.1	59.1	63.12	4.40	489	481	481	470	96	80	93	94	E	E	E	E	4.8	8.0	6.0	5.86	6.51	...		
24	620	640	6460	6460	61.0	69.0	60.0	62.69	4.4	566	504	540	508	92	70	95	90	NE	NE	NE	NE	5.0	6.6	3.55	4.33	0.50	...		
25	640	643	6601	6601	64.18	68.0	66.1	62.5	62.57	1.57	282	235	258	258	70	50	56	70	NW	NW	NW	NW	1.4	12.0	1.2	4.17	5.71	...	
26	418	408	3655	3655	37.18	62.8	67.5	45.21	1.2	241	196	234	224	82	54	72	69	NW	NW	NW	NW	15.6	27.0	15.5	17.58	17.91	...		
27	405	425	4621	4621	44.5	49.9	47.0	46.95	6.62	211	196	234	224	82	54	72	69	NW	NW	NW	NW	16.5	21.0	13.6	17.66	18.51	...		
28	678	681	419	419	48.2	44.5	57.1	53.9	60.02	1.27	231	286	356	296	85	61	84	79	SW	SW	SW	SW	9.2	20.0	1.5	10.64	11.48	...	
29	380	408	4408	4408	63.0	60.0	43.0	50.22	1.53	313	214	250	259	94	47	81	72	SW	SW	SW	SW	5.0	18.5	3.6	6.60	6.76	...		
30	503	630	5497	5497	43.0	54.2	30.4	45.71	5.61	236	205	213	222	80	49	88	74	NW	NW	NW	NW	5.4	12.5	3.8	6.82	7.32	...		
31	6020	29.0176	6055	6055	53.84	62.97	55.48	57.46	0.21	360	355	356	363	85	61	80	74	...	...	...	...	7.5	10.3	6.48	2.97	9.22	2.458	...	

REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR SEPTEMBER, 1875.  
COMPARATIVE TABLE FOR SEPTEMBER.

NOTE.—The monthly means of the Barometer and Temperature include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely, at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and results of the wind are from hourly observations.

Highest Barometer.....29.965 at 8 a.m. on 16th. } Monthly range  
Lowest Barometer.....29.181 at 6 a.m. on 18th. } 0.784.  
Maximum temperature.....77.8 on 16th. } Monthly range  
Minimum temperature.....38.6 on 30th. } 39.2.  
Mean maximum temperature.....69.75 } Mean Daily range  
Mean minimum temperature.....60.29 } 14.46.  
Greatest daily range.....21.46 from a.m. to p.m. of 23rd.  
Least daily range.....4.8 from a.m. to p.m. of 10th and 24th.  
Warmest day.....1st; mean temperature.....67.63 } Difference=21.01.  
Coldest day.....30th; mean temperature.....49.77 }  
Maximum { Solar.....133.4 on 8th. } Monthly range  
Radiation { Terrestrial.....26.4 on 30th. } 107.0.  
No Aurora observed.  
Possible to see Aurora on 12 nights; impossible on 18 nights.  
Raining on 16 days; depth, 2.455 inches; duration of fall, 62.0 hours.  
Mean of cloudiness, 0.63.

WIND.

Resultant direction, N. & W.; resultant velocity, 2.97 miles.  
Mean velocity, 0.22 miles per hour.  
Maximum velocity, 27.0 miles per hour, from 2 to 3 p.m. of 26th.  
Most windy day, 27th; mean velocity, 18.07 miles per hour.  
Least windy day, 24th; mean velocity, 4.33 miles per hour.  
Most windy hour, 2 p.m.; mean velocity, 13.56 miles per hour.  
Least windy hour, 11 p.m.; mean velocity, 6.40 miles per hour.

Fog on 11th. Dew on 3 mornings.

Lightning on 14th.

Solar halo on 6th. Lunar halo on 9th.

YEAR.	TEMPERATURE.				RAIN.			SNOW.			WIND.		
	Mean.	Excess above Average.	Maxi. mum.	Mini. mum.	Range.	No. of days.	Inches.	No. of days.	Inches.	No. of days.	Inches.	Resultant Direction.	Mean Velocity.
1848	67.2	-3.9	80.4	28.1	52.3	11	3.115	...	...	...	...	N 71 W 2.38	6.81
1849	68.2	+ 0.1	80.1	32.7	47.4	0	1.480	...	...	...	...	N 75 W 0.60	4.23
1850	66.5	+ 1.0	76.0	29.5	46.5	11	1.735	...	...	...	...	S 65 W 1.02	4.78
1851	69.0	+ 1.3	80.3	32.0	64.3	17	2.665	...	...	...	...	N 14 E 1.03	6.46
1852	67.5	+ 0.6	81.6	35.8	46.0	10	3.030	...	...	...	...	N 77 W 0.63	4.00
1853	68.8	+ 0.7	85.6	33.0	61.0	12	5.116	...	...	...	...	North 1.06	4.33
1854	61.0	+ 2.0	83.0	67.8	14	6.376	...	...	...	...	...	N 22 W 1.33	4.04
1855	69.5	+ 1.4	82.0	33.0	49.6	12	6.585	...	...	...	...	S 20 E 1.20	7.61
1856	67.1	+ 1.0	78.4	35.0	43.4	13	4.105	...	...	...	...	S 70 W 1.08	6.63
1857	68.0	+ 0.5	82.0	34.1	47.9	11	2.640	...	...	...	...	S 74 W 1.63	6.93
1858	69.1	+ 1.0	81.4	35.0	45.8	8	0.735	...	...	...	...	N 44 W 1.60	6.36
1859	65.2	+ 2.0	75.4	25.7	59.7	15	3.625	...	...	...	...	N 71 W 2.63	6.79
1860	65.3	+ 2.8	75.8	28.7	47.1	14	1.959	...	...	...	...	N 71 W 1.39	4.81
1861	69.1	+ 1.0	78.8	37.1	41.7	17	3.697	...	...	...	...	N 59 W 1.07	5.11
1862	69.0	+ 1.5	79.4	39.0	40.4	0	2.344	...	...	...	...	N 16 W 0.92	6.40
1863	65.9	+ 2.2	80.0	31.4	48.0	8	1.238	...	...	...	...	N 38 W 0.89	7.06
1864	66.4	+ 1.7	73.0	27.5	35.2	11	2.508	...	...	...	...	S 50 E 0.47	4.12
1865	64.5	+ 0.4	80.5	42.0	48.5	12	2.450	...	...	...	...	N 53 W 1.45	4.03
1866	65.2	+ 0.2	80.0	34.4	45.0	15	5.657	...	...	...	...	S 37 W 1.45	6.43
1867	67.0	+ 0.2	87.0	31.8	55.2	9	1.224	...	...	...	...	N 74 W 0.85	4.88
1868	65.6	+ 1.6	75.5	36.9	39.5	16	4.230	...	...	...	...	N 23 W 1.10	4.89
1869	69.7	+ 3.0	81.0	34.4	46.0	8	1.024	...	...	...	...	N 59 W 2.26	6.04
1870	61.8	+ 3.7	78.0	45.8	32.2	11	6.794	...	...	...	...	N 74 W 1.72	6.60
1871	64.8	+ 3.3	81.8	34.0	47.8	8	1.290	...	...	...	...	N 70 W 1.47	6.24
1872	69.1	+ 1.0	81.4	35.2	46.2	10	2.626	...	...	...	...	N 81 W 2.92	7.39
1873	67.3	+ 0.8	79.0	33.5	45.6	14	3.020	...	...	...	...	S 14 W 0.09	6.30
1874	63.3	+ 6.2	88.0	39.6	49.1	11	1.654	...	...	...	...	S 58 W 1.89	8.00
1875	65.6	+ 2.0	84.6	32.0	62.6	13	2.820	...	...	...	...	N 0 W 2.97	9.22
1876	67.5	+ 0.6	77.8	38.5	39.3	16	2.465	...	...	...	...	N 55 W 1.15	6.02
Results to 1875.	68.14	.....	81.47	34.60	46.68	11.33	3.475	...	...	...	...	...	...
Excess for 1876.	0.68	.....	- 3.07	3.61	7.28	4.67	1.120	...	...	...	...	...	...



REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR OCTOBER, 1870. COMPARATIVE TABLE FOR OCTOBER.

NOTE.—The monthly means of the Barometer and Temperature include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely, at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and results for the wind are from hourly observations.

Highest Barometer.....20.976 at 8 a.m. on 27th } Monthly range =  
 Lowest Barometer .....28.929 at 2 p.m. on 23rd } 1.047.  
 { Minimum temperature .....61.06 on 13th } Monthly range =  
 { Maximum temperature .....25.90 on 23rd } 38.06  
 { Mean maximum temperature .....60.21 } Mean daily range =  
 { Mean minimum temperature .....31.74 } 16.50  
 { Greatest daily range .....21.04 from a.m. to p.m. of 18th.  
 { Least daily range .....7.01 from a.m. to p.m. of 7th.  
 Warmest day ..... 22nd; mean temperature 63.90 } Difference = 20.63.  
 Coldest day ..... 20th; mean temperature 33.97 }  
 Maximum Solar ..... 11.70 on 1st } Monthly range =  
 Radiation { Terrestrial ..... 12.02 on 12th } 10.48.  
 Possible to see Aurora on 10 nights; impossible on 21 nights.  
 Aurora observed on 1 night, viz., 17th.  
 Raining on 12 days; depth, 1.433 inches; duration of fall, 41.7 hours.  
 Snowing on 6 days; depth, 0.1 inches; duration of fall, 4.1 hours.  
 Mean of Cloudiness, 0.70.

WIND.

Resultant direction, S. 81° W.; Resultant Velocity, 4.63 miles.  
 Mean Velocity, 9.19 miles per hour.  
 Maximum Velocity, 31.0 miles, from noon to 1 p.m. of 14th.  
 Most Windy day, 8th; Mean Velocity, 17.46 miles per hour.  
 Least Windy day, 31st; Mean Velocity, 1.23 miles per hour.  
 Most Windy hour, noon; Mean Velocity, 13.80 miles per hour.  
 Least Windy hour, 11 p.m.; Mean Velocity, 0.03 miles per hour.

Fog on 21st and 23rd.

Lightning on 22nd.

Solar haloes on 6th and 12th. Lunar haloes on 24th and 27th.  
 Rainbows 1st and 23th.

First snow of season, 7th; a few flakes on 1st.

YEAR.	TEMPERATURE.				RAIN.		SNOW.		WIND.		
	Mean.	Excess above Average.	Maxi. mum.	Mini. mum.	Range.	No. of days.	Inches.	No. of days.	Inches.	Resultant Direc- tion. chy.	Mean Velocity.
1848	46.3	+ 0.6	61.8	24.5	37.3	11	1.550	0	0.0	N 54 W	1.24
1849	45.3	- 0.5	58.9	22.4	34.7	13	6.965	1	0.0	N 12 W	1.27
1850	45.4	+ 0.3	66.7	22.4	41.3	10	2.085	0	0.0	N 60 W	1.10
1851	47.4	+ 2.3	66.2	25.2	41.0	11	1.680	0	0.3	S 72 W	1.08
1852	48.0	+ 2.9	70.7	23.8	46.9	12	5.280	0	0.0	N 6 2 1/2 W	1.19
1853	44.4	- 1.4	64.7	23.4	41.3	10	0.876	2	0.0	N 88 W	1.74
1854	49.6	+ 3.7	75.4	26.4	49.0	15	1.405	2	0.0	N 45 W	1.52
1855	43.4	- 0.4	68.0	22.6	36.4	14	2.485	5	0.8	N 82 W	1.49
1856	45.3	- 0.5	71.4	23.0	48.4	10	0.875	0	0.1	N 70 W	2.16
1857	45.4	- 0.4	64.0	26.6	37.6	10	1.040	2	0.2	N 19 W	2.93
1858	48.8	+ 3.0	70.3	31.6	44.8	17	1.707	1	0.0	N 34 W	0.30
1859	43.0	- 2.8	69.8	22.3	47.6	11	0.910	4	0.0	N 68 W	5.04
1860	47.3	+ 1.6	63.0	28.4	39.6	16	1.018	1	0.0	N 9 W	2.06
1861	48.7	+ 2.9	71.0	29.0	42.0	15	1.973	1	0.0	N 01 W	1.06
1862	48.7	+ 2.9	70.6	26.2	50.4	19	2.634	2	0.6	S 78 W	2.89
1863	45.9	+ 0.1	60.4	20.5	35.0	10	2.527	0	0.0	S 71 W	0.46
1864	45.2	- 0.6	67.0	28.0	39.0	22	3.321	0	0.0	N 60 W	3.17
1865	44.6	- 1.3	71.4	21.6	49.8	17	2.709	3	4.6	N 30 W	3.16
1866	49.1	+ 3.3	71.0	31.8	39.2	11	2.470	0	0.0	N 30 W	0.84
1867	49.9	+ 4.1	75.4	31.0	44.4	11	1.970	0	0.0	N 42 W	1.61
1868	42.4	- 3.4	67.6	24.0	43.6	10	1.365	2	2.0	N 80 W	1.27
1869	50.0	+ 4.2	68.6	18.7	61.1	8	0.902	7	2.3	N 50 W	3.72
1870	50.0	+ 4.2	68.6	30.2	38.3	10	2.690	0	0.0	N 85 W	1.80
1871	48.3	+ 2.6	72.2	28.6	43.6	13	1.188	0	0.0	S 06 W	3.76
1872	46.0	- 0.2	70.0	25.2	41.8	14	3.288	1	0.0	N 18 W	2.22
1873	45.7	- 0.1	69.2	24.2	45.0	13	2.155	3	0.3	West	1.77
1874	47.5	+ 0.7	67.0	24.8	42.2	11	1.418	2	0.0	N 70 W	2.75
1875	43.2	- 2.6	63.0	27.6	35.4	15	2.416	2	3.3	N 88 W	2.72
1876	42.8	- 3.0	61.6	23.0	38.6	10	1.433	5	0.1	S 81 W	4.63
Results to 1875	45.82	.....	68.80	25.91	42.95	12.68	2.381	1.83	0.80	N 64 W	1.86
Excess for 1876	3.06	.....	7.20	2.01	4.36	0.68	0.916	3.17	0.70	...	2.88

METEOROLOGICAL REGISTER.

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO—NOVEMBER, 1870.  
 Latitude—43° 39' 4 North. Longitude—8h. 17m. 33s. West. Elevation above Lake Ontario, 108 feet.

Day	Barom. at temp. of 32°.			Temp. of the Air.			Excess of Mercur above 32° F.			Tension of Vapour.			Humidity of Air.			Direction of Wind.			Velocity of Wind.			Rain in inches.	Snow in inches.				
	6 A.M.	10 P.M.	Mean.	6 A.M.	2 P.M.	10 P.M.	6 A.M.	10 P.M.	Mean.	6 A.M.	10 P.M.	Mean.	6 A.M.	10 P.M.	Mean.	6 A.M.	10 P.M.	Mean.	6 A.M.	10 P.M.	Mean.			U.	V.	W.	
1	29.630	29.541	29.476	51.7	56.0	53.7	53.12	+10.95	384	408	389	100	88	97	96	E	E	E	3.0	4.0	3.5	0.98	2.76	0.10			
2	29.5	28.949	28.908	46.3	55.0	53.9	51.38	+9.47	312	311	333	228	99	78	80	E	SE	SE	3.2	3.8	3.5	4.40	7.68	...			
3	29.5	29.611	29.611	46.3	47.0	43.4	44.29	+2.65	240	232	224	232	83	72	70	SE	SE	SE	4.6	11.0	7.6	14.04	14.10	2.80			
4	29.6	29.556	29.556	37.3	45.0	40.6	40.49	-1.02	200	173	190	190	89	55	78	W	W	W	8.0	6.6	7.3	6.27	6.34	0.88			
5	29.6	29.556	29.556	38.5	44.0	39.0	40.58	-0.59	...	...	...	...	...	...	...	W	W	W	8.0	6.6	7.3	6.27	6.34	0.88			
6	29.6	29.401	29.401	42.3	42.3	44.1	42.60	+1.90	202	229	251	219	75	88	87	W	W	W	1.90	2.02	2.09	8.23	11.68	...			
7	29.6	29.413	29.413	43.0	43.4	49.7	40.70	+0.12	216	205	223	213	85	73	87	E	SE	SE	0.12	0.16	0.14	7.02	7.12	7.10			
8	29.6	29.511	29.511	54.55	58.4	53.4	54.43	+0.17	206	181	198	196	89	65	82	E	E	E	0.17	0.20	0.18	4.0	4.80	...			
9	29.6	29.608	29.608	37.3	41.6	37.6	38.30	+1.70	170	182	200	190	80	69	80	W	W	W	1.70	1.70	1.82	4.31	6.12	R.			
10	29.6	29.611	29.611	36.8	39.8	35.8	36.43	+3.23	166	199	189	179	81	80	80	W	W	W	3.23	1.66	1.99	4.91	6.82	0.10			
11	29.6	29.681	29.681	35.0	39.3	30.7	34.78	-3.09	194	216	171	192	92	83	99	E	E	E	3.09	1.94	2.16	1.14	2.71	...			
12	29.6	29.648	29.648	35.1	44.6	48.1	42.13	+3.63	198	232	278	227	97	70	83	E	E	E	3.63	1.98	2.32	3.2	4.45	...			
13	29.6	29.773	29.773	41.0	48.9	41.0	47.30	+1.03	165	137	147	145	62	67	76	E	E	E	1.03	1.65	1.37	2.41	6.22	...			
14	29.6	29.780	29.780	30.8	37.6	34.3	33.83	-4.09	149	149	176	162	80	66	88	E	E	E	4.09	1.49	1.49	4.6	6.32	...			
15	29.6	29.895	29.895	32.7	39.8	30.1	37.18	-0.27	166	164	193	170	84	62	81	E	E	E	0.27	1.66	1.64	7.0	9.84	...			
16	29.6	29.704	29.704	40.5	41.0	41.0	40.92	+1.06	117	106	190	192	89	78	73	E	E	E	1.06	1.17	1.06	13.0	13.0	...			
17	29.6	29.725	29.725	40.9	44.0	41.0	43.76	+7.16	230	250	272	250	86	84	91	E	E	E	7.16	2.30	2.50	8.84	8.96	0.26			
18	29.6	29.885	29.885	44.5	44.0	46.0	43.60	+7.83	...	...	...	...	...	...	...	E	E	E	7.83	...	...	12.89	12.95	2.20			
19	29.6	29.600	29.600	40.7	42.7	40.2	41.32	+6.60	216	223	220	232	90	81	92	E	E	E	6.60	2.16	2.23	7.0	9.68	6.80			
20	29.6	29.645	29.645	39.8	41.2	42.7	41.25	+5.97	225	251	233	235	96	87	92	E	E	E	5.97	2.25	2.51	0.51	7.40	0.20			
21	29.6	29.825	29.825	43.6	44.0	42.7	43.25	+3.22	272	101	102	185	98	72	70	E	E	E	3.22	2.72	1.01	13.5	12.24	1.0			
22	29.6	29.695	29.695	33.8	35.1	32.0	33.05	-0.72	148	148	148	152	88	72	70	E	E	E	0.72	1.48	1.48	10.94	11.79	...			
23	29.6	29.673	29.673	30.8	34.8	31.1	32.00	-1.00	134	140	138	144	78	70	70	E	E	E	1.00	1.34	1.40	0.0	0.27	...			
24	29.6	29.816	29.816	30.1	35.6	33.7	33.68	+0.28	166	193	192	184	93	93	99	E	E	E	0.28	1.66	1.93	2.74	4.12	2.80			
25	29.6	29.825	29.825	33.0	34.0	35.0	33.92	+3.62	...	...	...	...	...	...	...	E	E	E	3.62	...	...	6.4	1.0	0.3			
26	29.6	29.816	29.816	20.3	32.6	28.3	27.67	-4.75	163	172	140	141	94	92	90	E	E	E	4.75	1.63	1.72	3.2	7.94	0.30			
27	29.6	29.834	29.834	20.7	31.4	31.3	31.05	-0.92	147	160	167	145	80	75	80	E	E	E	0.92	1.47	1.60	0.0	6.65	4.6			
28	29.6	29.816	29.816	25.4	32.6	21.6	24.60	-6.00	125	112	100	110	92	61	76	E	E	E	6.00	1.25	1.12	6.5	13.0	0.1			
29	29.6	29.612	29.612	46.2	10.2	16.3	7.0	10.36	-20.63	062	071	054	061	92	81	78	E	E	E	20.63	0.62	0.71	7.24	8.20	...		
30	29.6	29.612	29.612	46.2	10.2	16.3	7.0	10.36	-20.63	062	071	054	061	92	81	78	E	E	E	20.63	0.62	0.71	10.38	19.45	...		
29.6878	29.6810	29.6703	29.6782	35.66	40.14	36.96	37.20	+0.04	192	196	201	194	88	75	86	E	E	E	0.04	1.92	1.96	7.36	8.81	7.31	7.44	1.748	0.1



REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR NOVEMBER, 1876.

NOTE.—The monthly means of the Barometer and Temperature include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely, at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Highest barometer..... 29.970 at 8 a.m. on 5th } Monthly range =  
 Lowest barometer..... 28.908 at 10 p.m. on 2nd } 1.062.  
 Mean barometer..... 29.000 }  
 { Maximum temperature..... 69° 3 on 1st } Monthly range =  
 { Minimum temperature..... 64° on 30th } 63° 4.  
 Mean maximum temperature..... 42° 30 } Mean daily range =  
 Mean minimum temperature..... 31° 37 } 10° 33.  
 { Greatest daily range..... 17° 59 from a.m. to p.m. of 13th.  
 { Least daily range..... 3° 3 from a.m. to a.m. of 21st.  
 Warmest day..... 74; mean temperature..... 63° 12 } Difference = 42° 74.  
 Coldest day..... 30th; mean temperature..... 10° 33 }  
 Maximum (Solar)..... 10° 25 on 5th } Monthly range =  
 Radiation - { Torrestrial..... 6° 8 on 30th } 101° 7.  
 Aurora observed on 1 night, viz., 10th.  
 Possible to see Aurora on 6 nights; impossible on 24 nights.  
 Raining on 13 days; depth, 1.748 inches; duration of fall, 72.0 hours.  
 Snowing on 7 days; depth, 0.1 inches; duration of fall, 23.1 hours.  
 Mean of cloudiness, 0.89.

WIND.

Resultant direction, N. 20° W.; resultant velocity, 0.52 miles.  
 Mean velocity, 7.44 miles per hour.  
 Maximum velocity, 25.0 miles, from 11 p.m. to mid. of 2nd.  
 Most windy day, 22nd; mean velocity, 14.21 miles per hour.  
 Least windy day, 12th; mean velocity, 2.45 miles per hour.  
 Most windy hour, 11 a.m.; mean velocity, 9.53 miles per hour.  
 Least windy hour, 6 p.m.; mean velocity, 6.06 miles per hour.

Fog on 1st, 2nd, 11th, 12th and 13th.

Lightning on 1st.

Rainfall on 3rd.

Solar halo on 24th.

Lunar halo on 5th.

YEAR.	TEMPERATURE.				RAIN.			SNOW.			WIND.	
	Mean.	Excess above average.	Maxi. mum.	Mini. mum.	Hang-o.	No. of days.	Inches.	No. of days.	Inches.	Resultant.		
										Direction.	Velocity.	
1848	34.6	2.6	49.0	18.9	33.1	9	2.022	3	1.4	N 81	1.81	
1849	42.8	+ 0.8	66.4	20.6	29.9	10	2.815	2	1.0	N 39	1.55	
1850	38.9	+ 0.8	62.8	11.0	61.5	7	2.955	1	Imp	N 42 W	1.43	
1851	32.0	+ 3.1	50.2	15.8	36.3	6	3.856	0	6.7	N 69 W	1.26	
1852	36.0	0.0	60.4	18.2	32.2	7	1.776	3	2.0	N 9 W	0.55	
1853	38.7	+ 2.7	65.6	17.8	42.5	16	2.425	- 4	2.7	West	6.60	
1854	36.4	+ 0.8	65.4	13.8	41.0	13	1.116	0	1.3	N 25 W	7.51	
1855	38.6	+ 2.6	69.2	15.6	43.7	8	4.690	0	0.6	N 68 W	3.18	
1856	37.4	+ 0.6	60.4	18.8	37.6	10	1.376	0	8.0	N 83 W	2.96	
1857	33.5	+ 2.6	68.2	3.6	61.7	14	3.235	0	0.2	S 81 W	6.46	
1858	34.2	- 1.6	63.0	15.3	37.7	12	3.876	13	4.0	N 25 W	3.14	
1859	38.9	+ 2.9	62.6	21.8	40.6	12	3.193	9	0.6	N 81 W	3.30	
1860	37.9	+ 1.0	64.6	13.2	61.3	12	2.669	8	1.9	S 89 W	4.05	
1861	37.1	+ 1.1	62.4	23.0	29.4	14	4.294	8	3.2	N 40 W	1.91	
1862	35.0	+ 0.4	68.0	16.2	41.5	11	2.205	11	6.3	N 48 W	3.00	
1863	30.1	+ 3.1	67.0	17.8	49.2	13	3.636	0	0.1	N 83 W	3.60	
1864	36.9	+ 0.9	60.2	21.0	39.2	11	3.765	7	4.5	S 72 W	3.50	
1865	38.6	+ 2.6	64.2	23.6	39.6	6	0.975	7	1.1	N 79 W	3.82	
1866	38.4	+ 2.4	64.2	21.8	32.4	13	2.903	4	2.2	N 85 W	2.98	
1867	36.9	+ 0.9	60.4	9.6	60.6	8	1.833	9	0.9	N 87 W	3.06	
1868	36.2	+ 0.2	60.6	20.1	30.4	14	5.150	10	4.3	N 35 W	4.02	
1869	32.7	+ 3.3	68.0	13.0	45.0	9	2.640	18	10.2	N 18 W	2.10	
1870	30.6	+ 0.0	67.2	19.4	37.5	6	0.694	5	5.1	N 89 W	3.69	
1871	30.6	+ 6.4	47.1	19.4	47.1	10	2.655	12	4.6	N 40 W	4.36	
1872	32.9	- 3.1	52.0	8.2	43.8	7	0.424	18	19.6	S 85 W	5.02	
1873	27.6	- 8.4	61.4	0.8	60.6	6	0.610	18	19.6	S 85 W	3.08	
1874	34.6	+ 1.4	61.0	3.6	57.6	7	0.935	11	11.7	S 87 W	3.07	
1875	31.7	+ 4.3	61.0	5.0	66.0	6	1.066	8	7.8	N 60 W	6.63	
1876	31.7	+ 1.3	68.8	6.4	63.4	13	1.748	7	9.1	N 20 W	0.52	
1878	37.3	+ 1.3	68.8	6.4	63.4	13	1.748	7	9.1	N 20 W	0.52	
Resultts to 1875	35.99	...	56.33	13.79	42.64	9.61	2.747	7.39	4.10	N 77 W	2.78	
Excess for '76	1.30	...	+ 2.47	8.39	10.86	3.39	0.999	0.39	5.00	...	...	

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