ALL ABOUT THE MOSQUITO.

THE SWEET SINGER OF THE GLOAMING MINUTELY EXAMINED.

Arising From the Marsh Like Venus From the Sea, Only More Numerously—It is the Feminine Mosquito that Does Most of the Biting.

"I stood on the bridge at midnight," the anything but genial "mosquito," "musketo," "musquito," "musquetoe,," "moschito," "moschetto," "mosquetto," "muschetto," "mushetto," or "musquetto," sings on these cool, damp evenings. For such a very little pest the "mosquito," has more names and in more languages than any other living thing. Scientists variously call her the *culex pipiens*, *ailex Americanus*, the *cousin*, the *moucheron*, and the "humming gnat." The Century Dictionary describes the insect of many aliases as "one of many different kinds of gnats or midges, the female of which bites animals and draws blood." Persons given to attribute to the female sex all the gentleness and amiability there is in the world will bear this in mind.

Mr. Mosquito is an easy-going, gorgeously arrayed creature, with neither the disposition nor the ability to bite animals and draw blood. He is a sort of Turveydrop in the insect world, who seems to have no higher object during his brief life than "to show himself about town." His life, to be sure, is a short one but then it is full of indolence and luxury He is expected to pay certain delicate attentions to his infinitesimal spouse, which she rewards when tired of him by giving him a short, sharp and fatal prod of the remarkable lance which she carries concealed in her proboscis. He is not provided with such a weapon, and is as much at her mercy as a boxer at that of a skilled swordsman. He is of gentle and perhaps amiable character. He lives on a strictly vegetable diet, which may account for the absence of the bloodthirsty and ferocious spirit of his spouse. She can, at a pinch, lead the life of a vegetarian; but what she wants is gore, piping hot gore, human, if she can get it, but never overlooking any chance. The toughest hide that ever covered a horse or a steer does not intervene between the lady mosquito and her vampirish thirst. It is even doubted that Col. Mosquito is given to vocal efforts. If he ever does join his consort in a nerve-destroying duet he sings very low and his performance is entirely over-looked, when the restless human appreciates the ease with which my lady takes high C and holds it until driven out of the room by the exasperated wielder of a wet towel.

Less is known about the origin of the mosquito's name than of his habits, and Canadians have no monopoly of information upon this latter phase of the subject. All climates claim the mosquito as pest inchief. On the upper waters of the Missouri mosquitoes, after a rainy season, are the greatest impediment to navigation met with. They swarm by millions. Cattle are driven in the river, and they stand with their muzzles alone held above the water, which are black with the pests. Pilots on the boats are forced to burn smudge fires. They are of every conceivable degree of minuteness, and no veil has fine enough texture to exclude them. Arctic explorers all write of sufferings at the hands or rather stings of mosquitoes.

In England mosquitoes are called gnats, and on the Continent of Europe *cousins*, *moucherons*, and other names. The gnat belongs to the genus *culer*. It is found in most of the temperate and tropical portions of the globe where man has penetrated. About thirty species are known in the United States.

In the human family the female is the more ornamental as well as the more amiable animal. In the insect world, particularly among mosquitoes, the reverse is the case. There are mosquitoes which confine their activities to the daylight hours and lavish their caresses principally on the tender foliage of trees and aromatic plants. These principally inhabit woods and marshes. The other varieties make themselves heard and felt during the night chiefly. The greater portion of their active existence is passed in or near human habitations. These are the varieties with which man is most intimately acquainted.

Entomologists are by no means agreed as to the number of pieces in the proboscis, or "sting," of the common mosquito. This is the instrument which punctures the flesh and serves as a sort of introduction of the mosquito to the human family. Some authorities declare that it has four pieces, others aver that it has six, while still others assert that it has but five. The average layman would be unwilling to place the number below twenty. The proboscis is tubular in form. The lances attached to it, whatever their number may be, are sharper than any instrument known to the surgeon. It is not the size or depth of the wound inflicted which makes the mosquito's "sting" so painful, but rather the secretion which is injected under the skin by the proboscis. This always produces itching.

There is no unanimity among scientists regarding the question of poison in the mosquito's "sting." No poison gland has yet been found in the head of any of these insects which have been examined. The wounds have been known to swell and become inflamed in many cases. In some delicate skins, indeed, ulcers are said to have been produced, but on this latter point many etomologists throw doubts. It is certain, as millions of victims will very feelingly testify, that the wounds are often painful, and always decidedly unpleasant. The saliva injected is believed to be slightly acrid. This quality, aggravated with the action of the barbed joint on one blade of the "sucker," causes irritation, which is sought to be allayed by scratching, but which in reality makes the wound the more inflamed and painful.

Unhappily, the mosquito's "sting" is not so irritating to the victim's flesh as its "song" is to his nerves. Concerning he manner in which this sound is produced the naturalist is almost as much in the darktas the most ignorant and thoughtless n on scientist. The ordinary person, it is true if questioned on the subject, would unhesitatingly answer off-hand that it is made by the respiratory organs, as the vocal music of man and many of the lower animals is made. The naturalist, however, wouldnot make this mistake. For whatever produces this sound, it appears tolerably certain that it has no necessary connection with the breathing apparatus. Kirby, a well-known British entomologist, attributed it to the friction made by the base of the wings against the chest in flying. Other naturalists equally skilled and observant, ascribe it to the rapid motions of the winglets, the motions of the poisers, or the vibrations of the thorax caused by the contractions of the muscles of the wings. The wings, indeed, move rapidly enough to produce a buzz of a fairly robust and pronounced character. One authority estimates that they vibrate fifty times every second while flying. Let 100 or 200 of these songsters be flying at one time within a dozen feet of person's head—and twice or thrice as many as that are often flying within a space smaller than that in a woods, beside a brokoa or in a garden—and it would be wonderful if the air were not vocal with sound.

Strange Case of Hibernation.

We have heard of toads which have been imprisoned in solid rock for centuries, and which were found alive when their abiding-place was cleft open. This reminds me of things I have observed about certain fishes in winter which I think will be interesting to young folks.

A large number of fishes, some of them living in deep ponds, brooks, or out in silent nooks of the sea, will remain for four, five, or even six months in the same position without eating or so much as moving fin or tail.

In the government fish hatchery, under the management of Mr. Wilmott, superintendent of pisciculture for the Dominion at Newcastle, Ont., I had many opportunities to study certain fishes in winter, for they could be clearly seen through the glass sides of the tanks. In one tank, about a third of the way up from the bottom, were half a dozen German carp, all facing the direction from which the water flowed.

I noticed their positions about Christmas, saw them again in January, twice in February, and two or three times in March, and in all that time not one of them had changed its position or moved a fin or tail. Mr. Wilmott told me that this was quite usual among these fishes.

He permitted me to raise the cover of the tank and poke a couple of them with my stick; each one made a slow, easy movement and relapsed into stillness. Just above the carp in the same tank was an eel about three feet long.

When I first saw it in December it was curved like a perfect S, and all through the winter it preserved that shape without, so far as Mr. Wilmott knew, once moving. This, I may add, is how numerous kinds of fishes spend the winter. So long as they remain perfectly still there is no waste of animal tissue, and they do not need food.

Put a frog into a tank of water at the beginning of winter, then place a small piece of wood in the tank; the frog will get upon the wood with his eyes looking straight up, and never so much as move until the weather begins to get warm in the spring; he will then begin to jump about and look for something to eat.

But the strangest case of hibernation that I know has been related to me by Dr. Ferguson, the pathologist of New York Hospital. In one of the small tanks belonging to the hospital museum a card of a particular description has been placed.

One very cold night the water where the fish was kept was frozen through, and the fish imbedded in it. The caretaker took the ice from the vessel and placed it on top of an ashbarrel where rubbish was put away.

The cylinder of ice remained where it was put for a couple of months, till the hot spring sun one day melted it down to the place where the fish was frozen. Some attache of the hospital then was surprised to notice a fish wiggling in a piece of ice.

The carp had survived his imprisonment, passed the period of hibernation and resumed his old activity.

Scaffold v. Electric Battery.

Whether the scaffold or the electric battery is the best instrument of death for the murderer is a very much argued point. Across the sea, "electrocution," as the new system of capital punishment is called, is very severely condemned. That eminent medical authority the London *Lancet*, remarks: "A word of barbarous sound has this week been added to our language, a word as barbarous as the deed it expressed. It means taking human life by violence through the action of electricity. Salmoneus, with his brazen thunder, is now outheroded. His thunder was a mere terror. This is fatal. Four human beings have been "electrocuted" in New York on the 7th day of July, in this year of what is ironically called human redemption. About some of the reports of this deed of horror there is a sound of actual exultation, as if some wonderful discovery had been made or some great triumph of human skill had been perfected." It is difficult to understand why all this hubbub should be made about the execution of criminals who have neither pity nor consideration for their miserable victims. The scaffold was in every way good enough and quite as humane. If swiftness and painlessness are the sole aims of those who advocate a change from the ancient cross-tree, why not give the condemned five cents worth of some deadly poison and be done with it? Such a drug as the apothecary in Romeo and Juliet speaks of when he says:

> Put this in any liquid thing you will,
> And drink it off; and if you had the strength
> Of twenty men, it would dispatch you straight.

If it is worth while to be so tender, as these philanthropists and scientists pretend to be, about a foul murderer, it is surely worth the while to count the cost to the unoffending tax-payer. And poison is to be had equally as swift and deadly in effect as electricity, for a two hundred thousandth part of what the latter would cost, and with this additional advantage that the apparently desired secrecy could be better observed and there need be no pother or bother at all.

Brazilian Surgery.

The grip of an ant's jaw is retained even after the body has been severed from the head. According to the Medical Record, this knowledge is possessed by a certain tribe of Indians in Brazil, who put the ants to a very peculiar use. When an Indian gets a gash cut in his hand, instead of having his hand sewed together, as physicians do in this country, he procures five or six black ants, and, holding their heads near the gash, they bring their jaws together in biting the flesh, and thus pull the two sides of the gash together. Then the Indian pinches off the bodies of the ants, and leaves their heads clinging to the gash, which is held together until perfectly healed.

CITIES OF THE PHARAOHS.

Identification of Several More by Dr. Naville.

Dr. Naville, the discoverer of Bubastic and of the Treasure City of Pithom, has just given to the world the results of his work in identifying other cities and districts in Egypt, more especially some connected with the Exodus of the Israelites: and at the end of the month of June he presented these results before one of the largest meetings ever held by the Victoria (Philosophical) Institute, of Adelphi Terrace London, the great hall in which the meeting was held being so crowded that many had to be accommodated in the vestibule. The chair was taken on the occasion by the President, Sir Gabriel Stokes, Bart., past President of the Royal Society, and the present occupant of Sir Isaac Newton's Professorial Chair at Cambridge University. The business of the evening was commenced by Captain F. Petrie, the Honorary Secretary, reading the Report, which showed that the Institute's members and Associates in England, India, Australia, China, and other parts of the world had now risen to 1,400; a number which was being added to by the almost daily applications to join. The value of the transactions was shown by the increasing number of languages into which foreign members translated them, especially those scientific papers showing the error of those who argued that Science in any way contradicted the Bible. Sir Joseph Fayrer, K. C. S. I., F. R. S., moved, and Dr. Moule, who had just arrived from China, seconded the first resolution, after which Dr. Navilles' address was given. He illustrated his remark by referring to an elaborate map of his surveys. He said he had found that Succoth was not a city as some had supposed, but a district; from a remarkably valuable inscription discovered at Pithom, there was no longer any doubt that it was that Greek Heroopolis, from whence, as Strabo, Plimy, Agathemeros, and Artemidoris described, merchant ships sailed to the Arabian Gulf. This fact coincided with the results of modern scientific surveys, which showed that there had been a gradual rising of the land, and that the red sea once extended up to the walls of Pithom; this must have been the case about 3,000 years ago, and Sir William Dawson and the French engineer Linant held that it went even further north. The next place noted by M. Naville, was Baal Zephon, and in identifying this, he had been aided through some recently discovered papyri, which proved that it was not a village or city, but an ancient shrine of Baal and a noted place of pilgrimage. Other places were Migdol and Pi Hahiroth, and here again a papyrus had helped him, it seemed probable that the Serapeum was the Egyptian Maktal or Migdol, and it was greatly to be regretted that a bilingual tablet discovered there a few years ago had been destroyed before being deciphered. The bearing of his identifications was of no small interest to the students of History, both sacred and other. Sir John Coode, K. C. S. I., who had surveyed the canal for the British Government, moved a vote of thanks to M. Naville, and other authors of papers read during the year, namely, Sir W. Dawson, F. R. S., Professor Hull, F. R. S., Lord Grimthorpe, Mr. T. Pinches and Mr. Boscawen, the Assyrisiologists, Surgeon-General Gordon, C. B., of Indian, fame and others. A vote of thanks to the President concluded the proceedings.

England and Germany.

The Imperial ministry has more than it can comfortably accomplish in its endeavor to prevent any information from reaching the public ear as regards Lord Salisbury's actual committals of England to Germany. Emperor William very thinly disguises his purpose of attaching Great Britain to the Dreibund as an external ally. The Emperor wants the British navy to neutralize that of France. Bismarck was noted for the brutal frankness with which he disclosed his plans for German aggrandizement, and the kaiser pursues a programme carefully prepared in advance or one single end, and no pains are taken to mystify either France or Russia in the matter. Bismarck, through his well-known Hamburgngars, condemns the policy or such an understaning with England as will completely estrange Russia. Now, it may be that Bismarck shows his statesman-like comprehension of events in advising against pushing Russia into absolute fraternization with France. The maintenance of European peace seems to be more in that direction than in any other. Bismarck's idea was to isolate France. It remains to be seen whether the German emperor can improve upon the idea. The idea of the reluctance of powerful European nations to engage in war, notwithstanding great provocation united to racial prejudices and antagonisms, is singularly illustrated by these efforts of Emperor William to render Germany invincible against attacks from either one side or the other. There is no mistaking the fact that even autocratic Governments shrink from inviting the terrible carnage sure to occur from the improved death-dealing inventions in the next war.

The Bible on Theater Going.

Someone has reminded Bishop Coxe of Buffalo that the Bible does not anywhere condemn bicycling by women and the prelate has been obliged to admit that, so far as bicycles are concerned, the Bible is behind the age—which reminds of an occasion when ex-Chief Justice Drake of the court of claims addressing a meeting of the Washington city presbytery against theater going, and, being asked where the Bible condemned it, answered that, of course, theaters were not mentioned in the Bible—a remark which brought up the Rev. Dr. Sunderland of the First church like a shot, but in his suavest manner, with: "I beg the judge's pardon, but we read in the book of the Acts of the Apostles that St. Paul went to the theater at Ephesus." The Judge subsided.

No Staying at Home.

Habits, good or bad, cling to us. It was a blustering, rainy morning when Allen resolutely buttoned his coat up to his chin and drew on his gloves. "You are not going to church such a morning as this, Allen?" said a brother student. "To be sure I am," said the other decidedly. "I was brought up to attend church, and I should as soon think of going without my breakfast as staying at home." It is one of the best habits a youth can form, and a great safeguard amid the temptations of a city to attend the House of God.

ADJUTANT CAMPBELL'S MONUMENT.

A British Officer Who Saved the Life of a West Haven Rector.

In a field on the outskirts of New Haven, Conn., the remains of a young British officer have, for more than 112 years, reposed in a lonely grave unmarked except by a small stone erected about fifty years ago, which had long since succumbed to the relic hunters, combined with the elements. The young officer was Adjutant William Campbell of his Majesty's forces, and unless he had possessed noble characteristics, which have commanded the respect and admiration of men in all generations, his bones even now would probably lie unmarked.

About 10 o'clock on Sunday evening, July 4, 1779, the booming of a signal gun startled the inhabitants of the village, and the alarming tidings that the British fleet was off the harbor soon spread. The news that the fleet was bound eastward had previously been communicated by Gen. Wooster. Mr. N. G. Pond of Milford has in his collection the original paper conveying the information. Beacon Hill was soon ablaze with its warning signals, and all was bustle and excitement. Old flintlocks were taken down and examined, jewels were hidden away, and every preparation was made to resist attack. The British fleet numbered about forty vessels, which were soon anchored in the lower bay, and in the early dawn the boats were manned and the redcoats landed on the western shore of the harbor. About 1,400 men, commanded by Gen. Garth, began the march to the West Haven Green, where they were halted for about two hours. After the forces under Gen. Tryon had been landed on the eastern shore, the march to the town was begun. The troops under Gen. Garth were soon met by a small company under command of Capt. Hillhouse, that had marched out over West River bridge, but the latter, after a brief skirmish, took to their heels. An intermittent fire was kept up from behind fences and stone walls, and by a small force gathered on Milford Hill, where Adjt. Campbell rescued the Rev. Noah Williston, the villiage rector of West Haven. The latter, in hurrying over a stone wall, fell and was unable to rise. He was immediately surrounded by some Hessians, when young Campbell ordered the drawn bayonets lifted and Williston's life was saved. After learning that the rector's leg was broken Campbell ordered the limb set by the regimental surgeon. During the halt at West Haven some Hessians began the destruction of valuable furniture in one of the houses on the green, but they were promptly ordered by Campbell to desist.

The march into New Haven was by way of Westville, as the West River bridge was partly destroyed, and the troops were met by small detachments. Among those gathered to oppose the march into the town were three men, named Beecher, Alling, and Johnson, and, when near the Milford turnpike, the latter found himself unable to proceed further. When he was approached by an officer from the enemy's column, he raised his musket and fired at the British officer, who fell mortally wounded. It was ascertained afterward that the officer was Adjutant Campbell. He was tenderly carcarried to the nearest house, where he died. His last moments were marked by kind words to those about him, who although enemies, were admirers of his noble conduct.

Late at night the body was wrapped in a blanket and laid in a grave which had been dug near the edge of the woods. It is said that a poor colored woman kept the mound in shape for many years and often placed flowers on it. Campbell's dressing case is an object of interest in the building of the Historical Society.

The land on which the handsome monument was recently erected was donated by Dr. I. Mitchell Prudden of New York and Thomas P. Prudden of Chicago, and Miss Mary E. Alling of this city gave the plot containing the grave. The monument was erected through the efforts of the Historical Society, and the donors are Americans and Englishmen, members of the British-American Association, the Caledonian Club, the Clan McLeod, and the Sons of St. George.

The Blarney Stone.

The village of Blarney is in the north of Ireland, about four miles from Cork. Blarney Castle was built by Cormack MacCarthy, "the strong," fourth lord of Muskerry, about the middle of the fifteenth century. The ruins of the famous old fortress are visited by thousands of tourists every year. This is largely on account of a tradition which has been attached for some centuries to one of the stones used in building the castle. This stone is said to communicate to the tongue that touches it the gift of gentle, insinuating speech, and that has given rise to the accusation when any one is of particularly sweet accent that he or she has "kissed the Blarney stone." A song, written by Richard Alfred Millikin in 1798, refers to the local tradition in these stanzas:

> "There is a stone there,
> That whosoever kisses,
> Oh, he never misses
> To grow eloquent.
> 'Tis he may clamber
> To a lady's chamber,
> Or become a member
> Of Parliament.
>
> "A clever spouter
> He'll turn out or
> An out-and-outer
> To be let alone!
> Don't hope to hinder him,
> Or to bewilder him,
> Sure he's a pilgrim
> From the Blarney stone."

A Spider as a Weather Sharp.

One of the simplest and at the same time one of the best of barometers is the common garden spider. When there is a prospect of a rain or wind the spider always shortens the stays or filaments from which his web is suspended, and leaves things in that state as long as the weather is variable. If the insect elongates his thread it is a sign of fine, calm weather, the duration of which may be judged by the length of the webs.

If the spider remains inactive it is a sign of rain; but if, on the contrary, it keeps at work during a shower, the rain will be of short duration, followed by fine weather. Other observations have taught naturalists that the spider makes changes in its web every twenty-four hours, and that if such changes are made in the evening, just before sunset, the night will be clear and beautiful, and the thoughtful spider will stand a fair chance of getting some tender night flying insect for his breakfast, the repairs of the spider's net being made with that point in view.

MISCELLANEOUS.

The rarest specimens of that most singular of flowers, the orchid, are now faithfully represented in enamel and afford an effective addition to a handsome toilet.

Harvest prospects continue to be most bright. A young farmer writing from Morilen, Manitoba says: "I hope you may be induced to visit this fair province this coming fall and you will see a sight worth seeing. Manitoba has not had such a prospect in five years. Grain and grass are growing luxuriantly, and, should nothing happen between now and the 15th of August, the country will reap a crop the like of which has not been seen in a good many years. I have measured a stalk of my earliest wheat; it went 2 feet 6 inches. How is that for high?"

The official census figures, remarks the *Empire*, have brought an unwelcome roost home to the boomsters of the western territorries which have lately been admitted as States of the Union. Idaho's population, represented as about 125,000 is reduced to 84,385. Wyoming suffers a drop from 105,000 to 60,705. Nevada is brought down to 45,761. It is the same in other districts. Writers in eastern papers are warning their young men not to go west unless they head for British Columbia, where the growth is steady and solid. The Canadian territories on the whole compare favorably with those of the United States, and when our census returns have been made it will be found, it is safe to say, that we have made no great cry over little wool and that the settlers who have gone west in Canada have reason to be satisfied with the country and its prospects.

An English clergyman has promoted temperance by keeping a tavern. This is the way he did it. When he became rector of the parish he found drinking places numerous and drunkenness prevailing. He got possession of the village inn and contrived to prevent any other inn or ale house in the parish being licensed. The tavern was stocked with good beer and no other liquor allowed. A sober man and his wife were placed in charge, beer sold at cost under regulations and a fair profit charged for eatables. The result was satisfactory. Hodge gets his "drop of beer" when he is thirsty and is pleased with its quality and price, but is not allowed to drink too much. The profits of the tavern are spent in digging wells, erecting pumps and promoting sanitary measures. With good cheap beer and plenty of water drunkenness has entirely disappeared.

The closing of the great Welsh tin plate factories has made a deep sensation in England. Out of eighty about two-thirds have suspended, but there is reliable information to the effect that the closing was the result of a joint agreement. So much tin plate had been rushed over to escape the operation of the McKinley law that the American market is overstocked. The present movement is an effort to relieve the market so as to raise prices. On the first of next month the owners will decide whether the factories will be reopened or not. Many are in favour of flooding the American market and keeping prices so low as to discourage home efforts at manufacturing. Several English manufacturers have sent agents to the iron regions of Alabama to investigate as to the advisability of putting up plate tin works. Thirty thousand Welshmen thrown out of employment are eagerly awaiting the result.

Canadian cheese has made a good reputation for itself in the British market, and the result is that the annual export of cheese is valued at more than $9,000,000. The export of butter is of comparatively small value. Last year 1,951,585 pounds of Canadian butter, valued at $340,131, were reported. There is a practically ulimited market for prime butter, but the Ontario buttermakers have not succeeded in winning a reputation for uniformly good quality. There are, therefore, undoubted opportunities of usefulness in the dairy school established by the Ontario Minister of Agriculture, through which lectures are given in various parts of the Province. It is proposed to instruct farmers in the feeding of cows, the handling and testing of milk, the handling and churning of cream, the working and packing of butter, etc. A general improvement in the quality of Ontario butter will mean a large increase in the income of the Ontario farmers.

The Duke of Argyll recently presented in Parliament the condition of the Scotch crofters on the islands along the west coast of Scotland as pitiable in the extreme. They are suffering from the same conditions which the people were in on the west coast of Ireland. The population has gone entirely beyond the means of a subsistence, and thousands of people in these localities are without hardly the necessaries of life. He proposes two remedies, migration and emigration. There was a migration many years ago to the Hebrides, but the relief there obtained was only temporary, and the people who removed to those islands are as badly off to-day as if they had remained at home. The Duke of Argyll points out that the only resource for this wretched population is assisted emigration to Canada or to the distant British colonies in the southern hemisphere. He proposes that permanent relief shall be secured by providing for the removal of a large portion of this population to new homes. These people are of almost pure Scotch descent, and would be a welcome element in any part of the world to which they might emigrate.

The closing of nearly three score lobster canning establishments on the French shore of Newfoundland by the British naval commander will naturally be a trying experience for that region, especially as about a thousand fishermen and other persons are thrown out of employment. But this result has, of course, all along been expected, since it was only necessary to await the formal issue of authority for the purpose under the recent colonial legislation. The practical gain for the factories by the legal fight last year was that of prolonging the use of their establishments thus far. But it is doubtful whether the island could have been induced to submit quietly to the existing arrangement with France, had it not received assurances that England would spare no reasonable efforts to put an end in due time to the French treaty rights on that coast. The difficulty in reaching such a result has been the lack of a basis of agreement as to the extent of the French rights under the treaty of Utrecht. The arrangement for submitting this preliminary question to arbitration will help solve that difficulty, and in due time we may look for negotiations to buy out the rights of France in Newfoundland.