

T H E

# Knox College Monthly

AND

## PRESBYTERIAN MAGAZINE.

VOL. XIII.

FEBRUARY, 1891.

No. 4.

---

### CITIES AND THEIR EVANGELIZATION.

**I**N the ministry of our Lord the thoughtful student cannot fail to see that one striking peculiarity of His method of evangelizing was to work especially in the centres of population. Capernaum, that great northern commercial metropolis, saw most of His miracles in Galilee, and of the importance He attached to Jerusalem, the religious metropolis in the south, there can be no doubt. Matthew tells, in ix, 35, that "Jesus went about all the *cities* and *villages* teaching in their synagogues," and again, xi. 1, "When Jesus had made an end of commanding His twelve disciples He departed thence to teach and to preach in their *cities*." Then in the conversation with the disciples after His resurrection He lays it down as one of the regulating principles of their ministry that they are to begin at Jerusalem (Luke xxiv. 47), and if we study the apostolic evangelization we see that this principle was carefully observed. They sought to capture the cities for Christ. Jerusalem, Samaria, Antioch, Ephesus and the other cities of Asia Minor; Philippi, Thessalonica and Corinth in Greece, and even great and mighty Rome, were the very centres of earnest and continued preaching. This method and this principle demand our serious attention, and I will endeavor to show *why* we ought to follow Christ's method and act according to the principle He lays down. Let us consider, therefore,

## THE IMPORTANCE AND RAPID GROWTH OF CITIES.

Dr. Strong calls cities the "nerve centre and also the storm centre of our civilization." All along the course of history we see that cities have been the battle-ground of civilization and religion. Memphis and Thebes on the Nile represent the power of the Pharaohs. Nineveh and Babylon on the Tigris and Euphrates were synonymous with Assyrian and Babylonish greatness. Jerusalem is the essence of Solomon's great riches and dominion. Tyre and Sidon represent the commerce of Phœnicia, Athens the art and philosophy of Greece, and imperial Rome the law and learning of the vast empire of the Cæsars. Not only is this true, but if we read history closely we will see that those nations rose and fell as their cities rose and fell. Idolatry and rebellion in Jerusalem meant the exile of the whole nation in Babylon. Corruption and licentiousness in the city on the Tiber meant the overthrow and dismemberment of the great Roman empire,

But the mutations of years have not changed the characteristic of civilization, for the city is to-day, even more than in ancient times, the centre of influence. It has massed within it the greatest accumulations of wealth, and consequently the great corporations and manufacturing interests that cannot be carried on without large capital. With increasing wealth comes greater educational facilities, and the establishment of those branches of art that produce the luxuries wealth demands. The press has an ever widening sphere of readers, and through it the pulpit and platform greatly increase the number of their auditors. Law in its enactment and administration tends toward the city also. These and many other factors give to the great centres of population a powerful and far-reaching influence for good or for evil. Some of these factors we shall notice as we proceed.

The growth of cities in modern times is simply phenomenal. A species of social gravitation is drawing men in ever increasing numbers to the cities. London, for example, during the first 1800 years of its existence, *i. e.*, 200 years ago, had a population of only 670,000. Fifty years ago it was not larger than New York is now. But it would be necessary to combine New York, Brooklyn, Philadelphia, Chicago, Boston, St. Louis, Baltimore, Cincinnati and San Francisco to have the population of the London of 1890. Its present population is larger than that of our whole Dominion, and it is

increasing at the rate of 125,000 annually. If it continues to grow at the same ratio during the next century, there will then be over forty millions of people gathered around Charing Cross. In the city of Chicago we have another very remarkable example of rapid growth. In the year 1837 it contained only 4,170 people, while to-day it has over a million, an increase of about two hundred and thirty fold. In 1850 Berlin had only 400,000; now she has about 1,400,000. And similar increase may be seen in other European cities.

Not only are the cities growing very rapidly, but we see by comparison that their growth far exceeds the ratio of general increase. Between 1780 and 1880 the population in the United States increased thirteen fold, but during the same period the urban population increased eighty-six fold. In 1800 there were only six cities in the Union with a population over 6,000 each, while in 1880 there were 286. In France one in 7.5 of the people live in cities; in the United States one in 7, and in Great Britain one out of every 2.5, while in Scotland three out of every four live in cities or towns. Dr. Strong has formed a table showing the relative increase since 1790:

In 1790 one-thirtieth of the population in the U. S. lived in cities over 8,000				
In 1840 one-twelfth	"	"	"	"
In 1860 one-sixth	"	"	"	"
In 1890 one-fourth	"	"	"	"

In our own Dominion, young as it is, we see two cities already containing nearly one-tenth of the whole population, and sufficient to form a new city is being added to each of them every year.

These few figures will make clear to the most obtuse the fact of the rapid growth of our modern cities. It may not be out of place to inquire into the reasons for this very remarkable growth of modern cities. The ancient reasons for city building have scarcely any force in the 19th century. One reason why people built and lived in cities two or three thousand years ago, was for protection. The law of right was not recognized then as now; the only principle they knew was—

" Let him take who has the power,  
And let him keep who can."

Hence the cities were all walled and strongly fortified. A walled city to-day is an archaeological curiosity. The days of feudal castles

and walled cities has gone forever. In ancient times also, when people had not easy means of intercommunication, it seemed necessary to live in villages, towns or cities in order to have the enjoyments of social life that arise from the meeting of friends. But with improved means of communication that difficulty of isolation has largely disappeared, and moreover with increasing intelligence has grown up an increasing appreciation of the beauties of nature that gives a charm once unknown to country life. But though these ancient causes have passed away, modern ones even more powerful have taken their place.

1. The city has a peculiar fascination for many, and especially for the young.

There is a sort of witchery in the rush and roar of city life that casts a spell over the young. The youthful mind, naturally active and alert, is greatly fascinated by a life where something new and striking is constantly appearing upon the scene. Then, too, there are facilities for pleasure, social enjoyment and mental improvement such as cannot be found in the quiet country home or village. But there is especially what the better class of young people strive after, namely, the possibilities of rising to a higher position in their trade or profession. In the country or village, even if they are at the head, it is comparatively but a condition of mediocrity. But in the city they may secure a wider, even a national reputation. They will have to enter into strong competition, but that will simply act as a spur to rouse up all their dormant energies. Dr. Chalmers, in forming a comparison between a country and a city pastorate, said that while the latter lacks leisure the former lacks stimulus, and as far as great results are concerned there is more value in stimulus than in leisure. This is proven by the fact that by far the greatest part of the world's literary work has been done not only in cities but in large cities.

2. Modern invention and discovery tend to increase this centralizing tendency.

By modern discovery and through the aid of improved machinery, the aggregate wealth of the world has greatly increased. Men count their wealth now by thousands, and even by millions, whose ancestors two or three hundred years ago were proud to count it by hundreds. There is a well-known economical principle called "Engel's Law," the substance of which is as follows: As the in-

come for food, the great product of the country, increases, the relative percentage of outlay diminishes, while the relative percentage of outlay for sundries, that is the various articles manufactured in towns and cities, increases. Hence, as men grow richer, their demand for luxuries manufactured in towns will be greater, and so create a demand for more factory labour. There is, however, not only a centripetal force driving men to the city, but also a centrifugal force driving them from the country. The improvements in agricultural machinery have lessened manual labour on the farms immensely. One man can now do as much as ten men could do a century ago. While this has increased the wealth of the farmer, it has driven vast numbers off the farm, and the demand in the city has drawn them to the shop and the factory.

3. Greatly improved facility in travel has made it much easier to reach the centres.

A hundred years ago, when a man went for employment to a city, it meant an expensive and toilsome journey of several days. Under such circumstances there would need to be a very good prospect of getting a situation before one made the venture. But to-day, for a few dollars and in a few hours, a man can leave his country home in the morning, and if not successful return again in the evening, but only to renew his effort soon again until he is successful.

These primary causes and the centralizing of legislative and judicial business, the advantages arising from carrying on business on a large scale, and other causes that might be mentioned, explain fully the rapid growth of modern cities. I claim that these causes are all natural, and that their result cannot be unnatural; and unless citizens become recreant to their duty to God and their fellow-citizens, it is a libel to say, as Thomas Jefferson did, that "great cities are great sores upon the body politic." That there is a danger of their becoming so, we must admit, just as there is a danger that any good thing will be perverted, but the reason is not *per se* in its being a city.

#### THE PERILS OF THE CITY.

These perils might be greatly increased or diminished according as they are searched for by a pessimist or by an optimist. I do not accept either extreme, and will only mention such perils as can fairly be shown to be such. Among these I place

## 1. The Saloon and its accessories.

I need not stop to prove that the saloon from first to last has not one redeeming feature. It is horribly, eternally, universally an evil. It is not productive, but destructive. A saloon-keeper does not produce anything of value, unless you consider poverty, insanity and crime valuable. The labour organizations wisely refuse to recognize them as labourers in the sense of producers. The saloon is in direct antagonism to the Church of Christ. The Church lifts up, the saloon drags down. The Church holds up the Bible as the lamp of the nations, the saloon directly and indirectly casts reflection and discredit upon the Word of God. The Church endeavors to awaken and educate the conscience in regard to right and wrong, the saloon deadens the conscience and destroys the moral sensibilities. It is the nest where anarchism hatches most of its hellish plans, and the saloons recognized their friends by going many of them into mourning when the Chicago anarchists were hanged. The Personal Liberty League, one of the most vicious and dangerous associations ever devised in a Christian land, had its birth in a saloon. By the saloon we are not to understand a man fitting up a house and purchasing a stock of intoxicating liquors and selling them over the bar at five cents a glass. Every saloon to-day means a part of the great liquor traffic. There is no business so thoroughly organized for defence and aggression as this traffic. To carry on business and be respectable it must have a license, and to secure that privilege it must control the government. This it has succeeded in doing in many cities already to an alarming extent. The trade is utterly conscienceless. It goes to the polls simply to protect or advance its own interests. The two great cities of Chicago and New York are controlled largely or entirely by the saloon. A large number of their primary political meetings are held in saloons. Dr. McArthur, of New York, compares the saloon to Daniel's fourth beast, which was "dreadful and terrible and strong exceedingly; and it had great iron teeth; it devoured and brake in pieces and stamped the residue with the feet of it, and it was diverse from all the beasts that were before it; and it had ten horns." He says it is like this hideous monster, in that while horrible names are heaped together to describe its evils, we have no accurate description. This traffic is not confined to the gilded saloon. It is an influence in business, an influence in

politics, general and municipal, and also in some places an influence in the Church of God. Yet you cannot exactly tell when or where or how it is doing its secret and dangerous work.

But why say it is a peril specially in the city more than in the country? Just for much the same reason that a case of small-pox is more dangerous in the crowded streets and lanes of lower Toronto or Montreal than it is in a country home or village. Isolation and publicity are fatal to saloon and small-pox alike. The saloon can thrive only where people are so numerous that they cannot know each other personally, and where consequently it can take the advantage of the secrecy of ignorance. The record of cities proves this to be the case. In the city of New York there are ten thousand saloons. In seven wards of that city, with a population of 732,000, there are nearly 4,000 saloons and only 195 Protestant churches. The saloon has not gained the power and influence in our Canadian cities that it has across the border, yet will any thoughtful man deny that the saloon is a mighty factor in the government of this city and of the Dominion? Drunkenness is the open sore of cities in the old world, and if we are wise we will never allow drinking habits and the drink traffic to gain the hold here it has there. But eternal vigilance is the price of freedom from this monster evil.

2. The accession and congregating together of a large number of the depraved and vicious classes.

That there is a constant inflow of a most undesirable class into the city, every person of experience knows. They congregate or herd together in the poorest parts of the city, and as the city increases and property becomes more valuable and rents higher, they crowd into smaller and more wretched quarters, thus increasing their misery and their tendency to vices of every kind. There are two sources or streams that supply this class to cities—the one home, the other foreign. The first class consists of those whose vicious life in country or village is so notorious that it has become uncomfortable to remain there. To indulge their sinful lusts and practices they, like the prodigal, will betake themselves to the strange land of the city slums. There no one enquires or cares how they live or what they do. As it is harder to get a livelihood they become poorer and poorer, and as there is abundant encouragement to vice they become more and more vicious. The second class consists of those who come as emigrants from other countries.

That we are getting by emigration thousands of most excellent men and women from the old world, goes without saying. But in the very nature of the case many of the foreigners are most undesirable citizens. Some are persons who could not make a living at home, and of course are miserably poor and shiftless; some are the sloughed-off excrescences of tyrannical governments, to whom constitutional liberty means licence, and who would like to wreak the vengeance that they have nursed in their hearts towards despotic rulers against the very wisest and most democratic governments. It is among that class that anarchy, communism, radical socialism and such like grow up as a menace to good government. Statistics show that the *cities* of the United States are receiving the largest percentage of foreigners. Only one and a-half per cent. of the people of London are foreigners, but in fifty leading cities in the United States fifty-four per cent. are foreigners of the first or second degree; and it is shown that the foreign population in the cities is twice as great as in the country. In New York eighty out of every hundred are foreigners of the first or second degree; sixty-seven in Brooklyn; seventy-eight in St. Louis, and eighty-seven in Chicago. If any considerable number of that class is—as I have shown it to be—undesirable, the city is the worst sufferer. We do not yet feel the influence of poisoned foreign blood, as the tide of immigration has not yet fully set in; but come it will, and we are traitors to God and our country if we do not prepare to meet it.

3. The feeling of irritation that arises from social differences.

Dr. Loomis points out that there are three kinds of work and workers in cities: (1) those engaged in the work of making goods, *i. e.*, production, (2) those selling or distributing goods, *i. e.*, distribution, and (3) those who tender to others their personal or professional services, *i. e.*, service. Of these three classes of employments by far the greatest number belong to the first class. There is no reason in the nature of things why those three classes should not be in a condition of general social equality, as each class is necessary to the highest welfare of the others, nor is there any reason why each class should not have a fair share of the comforts and luxuries of life. But as a matter of fact it is not so. There are two tendencies that operate greatly to the disadvantage of the manual labourer (I don't like the term working-man, as it implies that the

man who works with his voice or his head is not a working man, but we must use it in its limited meaning), and these tendencies are: (1) The continued depreciation of skilled labour through the invention and use of machinery. The man whose skill fifty or twenty years ago could command a large salary finds a machine doing his work, and thus he is forced out of his employment or reduced to the inferior position of a mere attendant upon the machine. Of course all three classes reap a benefit from this machinery in the reduction in the price of goods manufactured, but the skilled manual labourer suffers more than he gains. The more machinery there is introduced the greater will the distinction become between the manual labouring class and the other two classes, for in proportion as the former class suffers the latter classes reap a benefit, and yet I fear they do not recognize or sympathize with the disadvantages of their less fortunate brothers in the shop and the factory. The increasing wealth and comfort of the classes engaged in "distribution" and "service," and their affected superiority in consequence of it, has created an irritation in the minds of the manual labouring class that it is difficult to allay. (2). The second tendency follows the first, viz., the removal of their homes from one another. However much invention or discovery may reduce the prices, there is one thing that never grows less, that is, house rent. As a man's income increases he will not remain in a crowded or uncomfortable locality, or pay a high rent in the centre of the city. He will move out a few miles into the suburbs, where he can get a better house at a lower rent or secure a house of his own. The railway will convey him back and forward to his place of business. But the workingman cannot do this, for several reasons. In the first place the expense of the daily ride would be a severe drain on his slender income. In the second place, if he walks so far, he must start, especially in winter, long before day and be tired before he begins his day's work. Then he cannot afford a hot meal like the business man, but must be satisfied with a cold lunch. On this he cannot stand his hard day's work. What is the result? Manual labourers are compelled to live in inferior houses because of their smaller income and because they must be near their place of work. Owing to these causes a wide gulf is created, and unfortunately those who could do most to bridge it over, viz., the wealthier classes, seem in most cases unwilling to do so. On the contrary, wealthy

corporations are combining to control trade for their selfish advantage, and workingmen try to checkmate this by forming unions and having strikes. The cities are the places where these irritations and agitations are felt, and they form a dangerous element, a menace to the welfare of every city.

4. A constantly widening gulf between the evangelical Churches and the masses, especially of the poorer people.

Some may say this is not a peril, as it does not exist to any appreciable extent, and that the constant reiteration of it only serves to create the impression. No one acquainted with work among the poorer classes in cities will long hold that opinion. Mr. Charrington, in his great evangelistic work in the East End of London, found such an antipathy in the converts toward the Established Church, that he could not induce them to connect themselves with these churches, and had in consequence to start an independent church. What do the poorer classes see? Elaborate and expensive churches built, that contrast strangely they think, with their homely apparel. To finance these churches, the wealthier members must be specially recognized, and so in some way they must be given the chief seats in the synagogues, and many of them are selfish enough to take them on the principle on which of course they act in other things, viz: that for a dollar, they want a dollar's worth. Do they not see the churches moving out of the poorer districts in order to keep and accommodate their wealthier hearers. Thus the social distinctions instead of being battled against, are in very many cases, recognized and pandered to by the churches. The result is that the poorer people feel they are not needed, and drift away from the Church altogether. Let me give one or two statistical illustrations. In the city of New York, south of Fourteenth street, there were 141 churches, Catholic, Protestant and Jewish, in 1868. Twenty years later, there were only 127, though the population in that district had increased 200,000. The reduction was chiefly caused by the churches moving up town to the wealthier parts of the city. Though Chicago is fairly well supplied with churches, there is a district in that city containing 30,000 people, without a single church. These are samples, and they could be multiplied greatly. Then the Church that is most recognized by the poorer classes, is the Roman Catholic, though thousands of them have only a nominal connection with it. When

we remember that Roman Catholicism to-day, is synonymous with Ultramontaniam and Jesuitism, and when we see it in control, as it practically is, in one of the Provinces of this Dominion, we see in it an element, not only antagonistic to a living evangelical faith, but dangerous to the welfare of the State. It is in cities too, that Rationalism, Secularism, Agnosticism, and other anti-theistic theories, lift up their heads most boldly, and like Goliath, defy the armies of the living God. Then, too, all sorts of fads and unscriptural theories prey upon the susceptibilities of the ignorant and unwary. Men cannot morally stand still. They are either getting better or worse. To allow thousands to lapse, as far as the true Gospel of Christ is concerned, and to leave them to irreligion, atheism or Jesuitism is to allow a festering sore to grow that will cause trouble to the peace and harmony of the city.

I have indicated, in a brief and therefore necessarily imperfect way, the importance of the modern city, and the dangers to which the city is exposed. In all, I have tried to be true to facts, because the truth, if duly appreciated, will constrain to serious thought and generous action. In another paper I may consider the methods of city evangelization.

D. McTAVISH.

*Toronto*

## THE MORAL AND SOCIAL ORGANIZATION OF EDUCATION.

### THE SCIENTIFIC HUMANITIES.

#### III.

Any reform of scientific studies ought to have in view a two-fold object: to simplify and also to unify them; and this is only possible through a philosophic organization of education. In the tree of science we would teach the child the root, the trunk, and the principal branches; certainly we would not make him count the leaves. For the more advanced we would bring down everything to the essential, and the more we reduce this study of individual sciences the more we will develop the truly scientific spirit, which is wholly opposed to the multiplication of subjects and to the cultivation of a mere mechanical memory. If a Descartes were to write a new "Discours de la Methode" he would point out the utter uselessness of the greater part of these so-called scientific studies—useless in practise and useless as an educative means—to say nothing more. What a masterly use of the scissors he would make on those programmes which seem to have no other purpose than to confuse the mind, or, as they would have said in Descartes' day, to stun it; or, as Pascal would have said, stultify it.

It may perhaps be pretended that this heavy technical baggage is necessary for artizans, for engineers, for doctors, and for officers of the army, but we only need to look at this more closely to see that it is a delusion. Each profession does, indeed, require a good many special subjects, together with a small number of general subjects. The knowledge of special subjects is acquired in the immediate preparation for a profession, and, above all, in the practice of such a profession, which brings one, as it is said, to the foot of the ladder. As to scientific subjects generally it is not necessary that our knowledge should be so extended; to know that which is absolutely necessary is all that is required, but we must know this thoroughly. The founders of the polytechnic school, says Biot, men accustomed to general ideas and whose minds the Revolution had excited at the same time that it

enlarged their views, regarded the science of a good engineer as consisting of general ideas, which are common to all kinds of service, together with the practical details, which are peculiar to ends. Among the first and holding a very high place are the higher mathematics, which give to the mind at once firmness and acuteness ; after this the great theories of chemistry and of physics may receive attention. If it is well for my intellectual education that I should learn the formulæ  $AzO$ ,  $AzO^2$ ,  $AzO^3$ ,  $AzO^4$ ,  $AzO^5$ , it is only as an example of the marvellous structure of atoms and of their regular combinations. In practice, however, if at any time, for any industrial purpose connected with my profession, I should require to know exact chemical formulæ, I would consult some good treatise, and I would certainly not trust to my college recollections. It is thought reasonable to teach to the young men at the Lyceum, those sciences with which they will later be occupied in the practice of their professions, as for instance the Natural Sciences to the future doctors. We hold that the contrary principle will be more reasonable. A student in Medicine will in truth only acquire a thorough knowledge of anatomy and physiology at the Amphitheatre, or in the dissecting rooms, and there will be ample time for this. What good will it serve to teach him superficially at the Lyceum, what he will be afterwards obliged to study *de novo*? Better teach the young men that which they shall have neither the necessity nor the opportunity of learning in later life. A future doctor has more need of the proper study of mathematics, of physics, of literature, and of philosophy, than of natural history ; he has need of all that will give to his mind a right direction, and a proper elevation—he has need of some idealism in looking forward to that time when he shall have been brought in contact with the miseries of human life, and with the mysteries of death. That utilitarian education, which occupies itself too early with some special profession, defeats its own object, and, instead of preparing men apt in their profession, rather furnishes minds incomplete and imperfect. All that is too particular, too special, ought to be excluded from a liberal education. This has for its purpose to make men—men endowed with great social virtues, and not in the first place to make engineers, machinists, doctors or pharmacists. A specialty ought to come only after the sure and permanent acquisition

of liberal knowledge—the useful only after the true and the beautiful.

Certainly these should be the principles which are to guide in selecting any science which we purpose teaching our scholars in literature. Astronomy, for instance, is less practical, less applicable to any industry than chemistry, but on the other hand it is better adapted to excite admiration, and to enlarge our views of the Universe, and just for this reason it ought to have a place in the programme of a liberal, and especially a literary education. But, actually, after having only very lately introduced the subject of cosmography among the studies to be taken up by the students of literature, it has been again struck out, and in the new programmes all the sciences defile one after the other, with the exception of this, and, in fact, a student of literature may pass through all his classes, without knowing the difference between a planet and a fixed star, without knowing what it is which we call a Nebula. This sudden suppression of a scientific subject by the stroke of the pen is just an example of how problematic is the pretended "necessity" of the sciences in education. Yesterday, astronomy was regarded as necessary for the completion of the pupil's course. To-day, it is chemistry and geology, which it is essential to know. It cannot be doubted that chemistry and geology are more useful, if our object is to know the organic bodies of our globe. For ourselves we should much prefer to make our young men "citizens of the world," that we should direct the attention of our children to the firmament full of stars, that we should tell them of Sirius, of Arcturus, and Aldebaran; that we should carry them in thought across immensity on the rays of those stars which have taken centuries to reach us and unvail themselves to man, that we should make them see in the white clouds of the Pleiades, or of the Milky Way the dust of worlds, and in other nebulae, perhaps worlds in process of formation. We should also tell them how science has succeeded in penetrating the secret of the various revolutions of the stars; we should speak to them of Pythagoras, of Plato, of Aristotle, of the dream of Scipio, of Ptolemy, of Copernicus, of Galileo, of Descartes and of Newton, concentrating all the movements of the universe in a formula which one may hold in the hollow of his hand. We should, even behind the astronomical system, seek to make them understand the philoso-

phic system of the world ; we should tell them that the heavens have been the admiration of the learned in all ages, and that these have all come to understand in what an abyss of final ignorance our science loses itself—how the compass of thought, while increasing the luminous sphere of our knowledge, at the same time multiplies “our points of contact with the night ;” we should add that the laws of numbers, which govern the world and render all its movements intelligible, have not their explanation in themselves ; that according to the majority of scholars, they ought to have their explanation in something analogous to our intelligence, and which is found at the very centre of all existence, at least in a universal effort, in a universal aspiration, which without doubt develops itself at the very depths of all being, and becomes conscious of itself in thought ; that in any case brute dead matter, though disposed in form infinitely varied, would not be able to explain all things, since there are beings which live, which feel, which think. In a word the professor of cosmography should not consider himself as exclusively a functionary of the state employed, for a certain remuneration, to teach at eight o'clock in the morning, or at two in the afternoon, that the direct rays of the planets describe areas proportional to the times. He should regard himself as an educator of youth in his own way ; he should persuade himself that a certain idealism is necessary in education, and that he should always find time to keep himself in touch with the life of the world ; let him with Kant even tell his pupils that there are two marvels which will always fill man with admiration—the heavens with their laws above our heads, and the moral law within our hearts, and that perhaps the two laws are fundamentally the same, obscure in the brightness of the heavens, brilliant in the obscurity of our own conscience. This liberal contemplation of visible as well as invisible infinities would seem to us more valuable than the practical knowledge of slates, of sandstone, and of plaster of Paris. He is not a man who has never experienced that “holy dread” which Lucan said was felt under the vault of the great oaks in the Druidical forest, and which is felt still more keenly under the forest of stars in the vault of heaven.

In chemistry even, in our opinion, it would only be necessary to teach, at least to students in literature, with what is necessary that which is beautiful and admirable, that which discovers to us

the elementary structure of bodies, or that universal relationship which exists everywhere, and which the spectral analysis reveals to us. Let us take two programmes of chemistry : the one passes in review the whole series of elements and of their principal combinations, it mentions the preparation of sulphuric acid, chloridic acid, of azotic acid, etc. ; the other, after a rapid historical sketch of the development of alchemy, of chemistry, examines the principles of chemistry and its connections with physics and physiology, considers chemical atoms and their structure, the relative or absolute simplicity of metals and metalloids, the analysis and synthesis in chemistry, the limits of our actual knowledge in this branch of science and its possible progress, the limits which the mechanism of atoms cannot pass ; to this may be added the principal laws of the combination of bodies, the great discoveries, such as the spectral analysis, their theoretical, practical, and even social consequences, the revolutions brought about in industry by their discoveries, in a word, the opening out in every sense, and the perspectives extending far beyond the description of metals, of acids, or of salts. Of these two programmes we need scarcely ask which would be the most interesting and the less difficult for young minds. General views are retained much more easily in the memory than the multiplicity of details. But there can be as little doubt as to which will be attended with the better results or have the higher educative value. Our means for determining this point are simple, and may be had recourse to on any similar occasion. Let us suppose that a pupil at the end of his course at the Lyceum forgets the minutiae which he has been told (and this happens nine times out of ten) then little or nothing of the actual programme will be retained by him. But in the other case he will have acquired the spirit of chemical studies, impressions which cannot be effaced, a general elevation of thought, in short, a curiosity and a desire to satisfy it whenever an opportunity may present itself, as also a respect and a love for science. All the formulæ and all the nomenclature will no doubt have become shadowy, but there will remain a progress of thought, and indeed a scientific aptitude always ready to manifest itself if any of the circumstances of life should oblige the young man to return to the study, to take up anew a science of which he may have forgotten the letter but retained the spirit. We may then say that chemistry

interpreted in a certain manner and taught according to a certain method, becomes a social and moral science, instead of remaining a study wholly material; becomes "a human science," instead of being the knowledge of rude and gross objects; and it is only thus that it will be able, with all other sciences understood in a similar way, to obtain its legitimate place among the "humanities." The highest aim of a liberal education is to excite interest, and all that is not interesting ought not to be taught to the "humanists," except under the condition of absolute necessity; *πολομαθια γουου ου διδασχει.*

What are the necessary sciences? There are some sciences which are truly explanatory, while there are others which are so only to a certain extent. Thus mathematics and mechanics are perfectly explanatory; their analysis and synthesis are complete and give the idea of necessity. The effects are seen in their causes, and all is clear and transparent to the mind. Physics is also in a large measure explanatory, and has theories, as that of the dew, which suggest the idea of necessity. But when we come to chemistry we leave the merely explanatory, and we cannot say how or why a certain combination of oxygen and hydrogen makes water. Even when the properties of the composing elements are known we are still unable to deduce the properties of the substances which result from the combination. We can only state the phenomenon, we can say "this is so," or that "this will be the result," and you will see oxygen and hydrogen changed into water. "In chemistry," says M. Berthelot, "our power goes further than our knowledge." The natural sciences are still less explanatory. Life remains a mystery. To state is not to explain. We may open a grain of wheat which has germinated, and we may destroy the germ, but this does not make us understand the great law of life, the secret of universal germination. Even the functions of life can be only very imperfectly explained. We cannot tell why the brain has two hemispheres, or why it is formed in such a manner, or why such a flower has five petals and not six, or why such a stratum has such a composition and not another. Here we can only state, describe, or recount. The truly scientific part of natural history is beyond the compass of secondary education; the descriptive part is either useless or belongs to primary education. Nature turns its kaleidoscope and we are content to note the

different figures which follow one another, an eglantine after a violet or a primrose, a lion after a tiger or an elephant. But what advantage is there in describing to the pupil all "the games of chance or of love." All that is necessary is to awaken the imagination, to excite interest and curiosity; all else is superfluous. Education as a profound and methodical study only requires two typical sciences and whose methods are equally typical, the one inductive, the other deductive, mathematics and physics. These are almost the only sciences which give occasion not only to the introduction of order, but of problems, and therefore exercise the mind on solutions. If it is true that the blacksmith can only learn his trade by working at the anvil, it is equally true that we can acquire the scientific spirit only by the study of such sciences as give the pupil something to do and something to find out; and it is therefore to be regretted that in physics the pupils are not allowed to experiment for themselves; nevertheless this science, inductive *par excellence*, is the necessary complement of mathematical deduction. But even in mathematics it will only be necessary to learn the fundamental principles, in such a way however as that they shall be known thoroughly. After the three hundredth Latin translation it is certain that the mind of the pupil will be more exercised and have reached a higher degree of culture than after the ninth, and from Cornelius Nepos or from Sallust he will be able to pass to Tacitus and to Virgil. He will have solved a number of problems consisting in the finding out and expressing the thoughts of great writers. But after the three-hundredth theorem of geometry will the pupil have become more intelligent? If he studies the ellipse after he has studied the circle will his mind have undergone a metamorphosis? Or even if he solves equations of the second degree after those of the first, will he have become another man? No, for in short, theorem after theorem, it is always the same thing. And so in chemistry the pupil will not have made any intellectual progress if after having studied sulphur he should study iodine. And so in botany, if after having studied the family of the rubiacæ he should learn the character of the primulacæ, or after having examined pieces of quartz he should examine pieces of chalk.

To speak truly, instruction in the sciences with their large number of facts and of laws does not imply any philosophic con-

sideration, and only advances the mind in appearance and not in reality—in fact it depresses it. It is as if after having cited one example we should cite a thousand similar ones. It is different in the case of the moral and the social sciences. If after having studied the laws of sensibility and of the passions, we study those of the intelligence and of the will, if we pass from these to logic and to ethics, if we rise to considerations on the nature and value of existence, it is clear that we not only advance, but rise higher in our studies. If in political economy, after the laws of production we consider those of exchange, it is clear that we can have a more complete idea of the source of wealth; so in politics, if after we have studied the advantages of a monarchy, we study the advantages and the dangers of a democracy we shall be better able to decide between them. If in æsthetics, after the strength and weakness of idealism, we examine the strength and weakness of realism; if from the different kinds of poetry we pass to the plastic arts and to music, it is certain that our tastes will be elevated and our ideas enlarged. The moral and social sciences are a continual ascension, the mathematical and physical sciences can present ascension only on the philosophic, moral, and social side.

While we simplify the scientific studies according to the principles which we have laid down, we must unify them. The mode of doing this is quite evident; it imposes it upon itself. The bond of union between the different sciences can only be philosophy. Two things are necessary, in the study of each science we must introduce the spirit and the method of philosophy—a view of the whole—an examination of the most general principles and conclusions; then we must reduce the different sciences to unity by the thorough teaching of philosophy, which should be not less obligatory for the student of the sciences, than for the student of literature. Students will only follow the professor when they perceive the end he has in view, and the avenues which lead to it. If he cannot, if he does not feel it necessary to make them see the practical application of each truth, he ought at least to make them see its, so to speak, theoretical application, that is to say, its place and its importance in the system of human knowledge. The sciences cannot be properly taught but by men of a philosophic mind, who will always see the part in the whole, and who will never lose sight of the hierarchy of truth.

At first we must show in the sciences the human side, the part which the mind plays in their formation and in their discoveries ; that is to say, the method of each science, which is an application of general logic, ought to be the subject of particular and attentive study. But this logic must not be wholly abstract, for it should be accompanied by some good examples furnished by the history of the sciences. Scientific verities, Descartes says, are battles gained. Let the professor recount to his students the principal and the most heroic of these battles ; let him interest them in the very results of the sciences ; let him strive to develop among them a scientific spirit by rousing an enthusiasm for the conquest of truth ; let him make them understand the power of reasoning, which has led to actual discoveries and will lead to others. These students will certainly take a deeper interest in arithmetic and geometry if we add a little history to the exposition of their theoretical principles ; if we lead them, as it were, to assist in the efforts of Pythagoras, of Plato, of Euclid, or at a later period, of Vietus, of Descartes, of Pascal and of Leibnitz. The grand theories, in place of being mere dead and anonymous abstractions, would become living truths, having their history just as a statue by Micha'l Angelo, or a painting by Raphael.

At the same time each scientific truth should carry a moral lesson. "Believe me," says Tyndall, "many an act of noble self-renunciation unknown to the world takes place in the heart of the true student of science, as he pursues in the privacy of his laboratory his course of experiments." Mr. Huxley says, science improves according as it is moral ; "truth is the reward of the student's patience, of his love, of his simplicity, of his devotion rather than of his genius" And according to Mr. Spencer, "devotion to science is tacit worship, not expressed in words, but proved by the sacrifice of the student's time and thought, and labour." We could not express it better, but we are speaking here of active discovery, not of passively transmitted truth. Yes, the development of the sciences, and the progress of method is an *épopée*, and it is more important in the education of youth to interest them in this *épopée* than to make them enumerate and form an inventory of facts and of laws. Science has an intrinsic poetry ; we can scarcely hope to find a Goethe, at once philosopher and poet, but we ought not to neglect in our scientific instruction to point out the poetry of

science, a poetry connecting itself with its logic even as well as with its history.

But besides the human and the logical side of the sciences, it is proper to show also the general and the cosmological side. In order to do this we ought to systematize the great results of different sciences, and to show their connection. That which is truly scientific in the sciences, is the chain of causes; but this is at the same time the most beautiful and most interesting, and in this is its principal educative value. The history of objects of which we see the chain of causes becomes a fragment of the history of the world, and so of our own history, since we are a part of the great whole—an intelligent part—that part indeed that understands the causes. Our mind is not satisfied unless it can connect individual things with the universal, but this connection constitutes its grandeur; this bond of connection is, however, in a large measure ideal, and we can only hope to perceive it with the eye of our mind. Surely there is no one so indifferent as not to be interested in the system of the world. The true liberal value of the study of the sciences lies then in this: they ought to give us an idea of the universe and of its great laws, of that which the ancients called the Cosmos. The part which numbers play in the universe, as well as that of geometric forms, and that of movement, are facts as interesting and as pleasing to the mind as the particular study of a theorem of arithmetic or of geometry is uninteresting and displeasing. If we set before students enlarged views, if we extend the horizon of their mental vision, we may rest assured that they will take an interest in finding the tangent of a circle, or in the extraction of a square root. We must pythagorize, in the good sense of the term, we must platonize, we must show our students that there is an æsthetic element in numbers, that numbers govern the world, and that forms in space reveal to us the universal plan. In a word, we must bring before them both the human mind and the universe; detached from these two terms a scientific truth loses its interest and also its value; it can henceforward have only a practical and industrial interest.

But it is not sufficient that the teaching of the sciences should be animated by a philosophical spirit; it should have its complement, and, in a certain measure, its counterpoise, in a thorough teaching of philosophy itself. Secondary education.

proposes two principal ends. In the first place, it ought to furnish to those who do not intend to continue their studies to the higher branches a culture sufficient for the functions of private life, and of family as well as social life ; in the second place, it should give to others all the knowledge which may be necessary in preparation for superior education. Now philosophy is essential to introduce unity into the different sciences or the different branches of literature, or between the sciences and literature ; between the laws of nature and those of society and of history. From this unity alone can there result a scientific conception of the world, and, for those who will not carry farther their studies, a superior rule of conduct. It is proper that secondary education should take up the philosophy of nature as well as social and moral philosophy. Without this it will remain in a state of anarchy, separated from its principles, its consequences, and its ends ; it will be an analysis without a synthesis, or, as Aristotle would have said, a poor drama made up of episodes.

Philosophy is then essential to all those who must content themselves with secondary education ; it is proper that they should carry from their studies general conclusions regarding nature and also humanity, as well as the laws and ends of existence whether individual or collective. Besides this the moral and social sciences have in themselves a special educative value, since they furnish to our higher faculties at once exercise and nutriment ; therefore all the other sciences should be brought into connection with them. " By the word science simply," remarks M. Dubois-Reymond, " the French understand the sciences of nature (*naturwissenschaft*), and by *wissenschaft* alone the Germans understand the science of mind (*geisteswissenschaft*). Moreover philosophy is the education where the scholar, by the mere fact of listening to his teacher, may be truly active, instead of remaining a mere recorder. We cannot learn psychology, or logic, or ethics without understanding them, and we cannot understand them without in some sort reforming them, or thinking them over, without assimilating them, and criticising in our own mind the teaching of the master ; in place of assisting passively at a material experiment as in a course of physics, or of listening to a description illustrated by anatomical plates as in a course of natural history, the student of philosophy is obliged continually to turn to his own experience, to his

personal recollections, to what he has seen and heard and felt. The master even interrogates him and applies to him the maieutic method of Socrates. According to d'Alembert, in order to acquire acuteness, that quality which is so essential to the mind, "we must exercise ourselves on vigorous demonstrations, but not confine ourselves to these." We must in the first place accustom ourselves to recognize the true in all its purity, in order henceforward to distinguish that which approaches it more or less closely; but it is to be feared that the too great and constant habit of considering the absolutely and rigorously true may blunt the mind in regard to that which is not strictly true. Ordinary eyes too much accustomed to bright light fail to distinguish the gradations of a feebler light, and can only see thick darkness where others can discern some degree of brightness. This may account for that contempt with which certain scholars regard philosophy. Nevertheless he who cannot recognize the true, except when he is brought in immediate contact with it, is much below him who is not only able to recognize it when it is near, but also detects it and studies it when it is distant, and in fugitive characters. We must accustom ourselves to pass without difficulty from the brightness of day into twilight. In the moral and social life we must sometimes work in uncertainty, and in our opinion it is less important to possess acquired knowledge than the art of divination—"the perception of the beautiful and the good and the suitable." Any education which does not develop this sense may make very good artisans, but certainly it will not make men—men capable of discharging their duties to society and to the state. On the other hand, philosophy is not less necessary for those who purpose carrying their studies into the higher branches. In fact this higher education naturally implies a certain specialization, as law, medicine, the sciences, history, literature, philology and theology. All students in their higher studies are not obliged to follow a course of philosophy, besides that in that higher education philosophy cannot any longer form a complete and regular course: it specializes on certain questions, and, in order that these particular questions may be followed with any result, it is necessary that there should be a full preparatory knowledge of philosophy. It is then folly to suppose that in higher education we are only to initiate the study of philosophy. But young men who enter on the

study of the higher branches without having taken up preparatory philosophic studies will not be able to derive the necessary profit from these higher branches. They have no standard, no general principles, no comprehensive views, no means of uniting and co-ordinating their special studies in a conception of the world, of life, and of society. Their special pretended higher studies will remain in reality inferior studies. They will be artizans in physics, in chemistry, in history and literature; they will not have the elevated, impartial, liberal and universal mind, which should be the mind of the universities. Men of science, more than any other, require to know the limits of science. They are led, in fact, either to pass in their affirmations the limits of knowledge, or to introduce into science metaphysical hypotheses, which they present as scientific truths. Science tends to become a sort of new divinity, of which scholars are the prophets and whose worship has its bigotry. Kant has inaugurated the philosophy of the present day by making it a *critique* of our means of knowledge, and by marking the limits which knowledge cannot pass: *alibi terminus hæretur*. The leading scholars of Germany are pervaded by this critical spirit, and in their teaching take pleasure in pointing out where our knowledge necessarily stops. We may recall the magnificent prelections of M. Dubois-Reymond on our knowledge of nature and on the seven enigmas of the world, or those of Virchow, of Haeckel, of Naegeli, on analogous subjects. In England Tyndall's lecture on the limits of science has become classical. We must then be careful not to allow our young men to give themselves up to the exclusive study of the sciences, and to that vanity which this study is very apt to develop, without showing them all the points where it would be proper to say, with the modesty of old Socrates, "What we know is that we know nothing." One of two things is apt to happen to men of science who have not received a philosophic culture: either they remain in the attitude of perfect indifference and of positive scepticism, or they frame for themselves a philosophy more or less foreign. The lucubrations of more than one old scholar of the polytechnic school show that the spirit of geometry is not by any means free from chimeras. It is necessary, therefore, that the student should receive from philosophy an explanation of the facts of science already known to him, a rule for the higher scientific researches, in

short an idea of the limits which scientific knowledge cannot pass, and beyond which begins the domain of faith.

The teaching of philosophy is at present suppressed, or nearly so, for those students who are giving themselves up especially to scientific studies in preparation for the degree of bachelor of science, or for the Faculties. But it is precisely these that have most need of philosophy, for it is above all for the future men of science, as we have seen, that a moral and æsthetic culture is most essential. The study of literature having been reduced to the student of science to a very insufficient minimum, if further philosophy is reduced to a dry resumé, to a sort of manual, in view of the baccalaureate, then we may say that the bachelors of science will, in a cultured society, be veritable barbarians. Let us then do away with this deceitful bifurcation, disgraceful in itself, and which permits pupils to pass from the third or even the fourth class to the class of "elementary mathematics," passing over the humanities and moral philosophy, in order "to bend themselves," to use the expression of d'Alembert, "over lines and the calculus." The subjects studied in the class of elementary mathematics ought to be redistributed over the last four classes of secondary studies, as also over the courses which are being instituted for the students of rhetoric or philosophy who have in view at a later period to study the sciences. We would further reduce all the parts of the programme which are not essential, and insist on that which is fundamental—mathematics. In the first cycle of teaching, which is almost primary, the descriptive part of the natural sciences should have its place. In the second cycle, which is expressly secondary, the typical sciences ought to be taught, and these are two: mathematics and physics; and these are alone essential and are the base of all the others. Chemistry here begins to be in a large measure superfluous, botany is useless, geology still more so, even zoology ought only to appear in the third cycle, which already partly belongs to superior education, and at this stage it is general biology which should be taught, that is the general laws of life and its evolution. In a word, the teaching of the natural sciences should be either primary or superior; it is not properly secondary, or at least it does not form part of secondary teaching except through its general theories and its philosophical conclusions. Every scholar who has received good instruction in

mathematics and physics possesses the necessary equipment for the study of the sciences; all else is only an affair of time, of memory, and of practice. If to this we add the corrective influence of the French and Latin languages and of a philosophy thoroughly studied, together with a general view of history, we will secure the selection and development of scientific minds, and this by the same means as we secure minds of a literary cast. For mathematicians instructed in the humanities and in philosophy the remainder of the sciences, with their technical applications, will not offer any serious difficulties.

In France we are too fond of uniformity, which we mistake for unity, and we are not able to distinguish, in secondary education, the immutable base, the true humanities, from that which may vary according to particular aptitudes. For our part we would wish a severe inflexibility in all that concerns the essentials in education—the study of one's own language, Latin, ethics and philosophy, the history of civilization, the elements of mathematics and physics, and, at the same time, a tolerant flexibility in regard to Greek, the living languages, the details of history, the details of geology, chemistry, cosmography, zoology, geography, etc. Do not let us ask parents to mark out a special course for their children at the age of thirteen. Let us simply ask that their children should pursue their studies to their nineteenth year, or in their higher branches to their twenty-first year. This is as it has been said, the only question which has an interest for all, and which parents alone have the power of answering. We should organize our secondary instruction with some simple branching out, determined by the aptitudes or the tastes which may have declared themselves during the previous studies, or as having in view some particular future career. We would allow in the last years a certain latitude in choosing the course in the Faculties, joined to an extreme severity in maintaining the common and essential courses. If a student intends to enter the school of St. Cye or the polytechnic schools he will have to strengthen his scientific studies by the choice of appropriate courses. He will not take Greek, and will take less of history and of geography. He will not pursue the course of aesthetics or of the history of literature, etc.; but he will continue the thorough study of Latin, of his own language, and of philosophy. Though thus prepared for some one of the

government schools he will not indeed be less prepared for any liberal profession. Fortified by a knowledge of his own language, of Latin, of philosophy, with the addition of some special studies, he will be fitted to become a good magistrate quite as well as a good engineer, a good professor as a good officer. He will not have his mind cramped by that servile mode of studying the sciences which constitutes the preparatory fare for the government schools. These schools would certainly not lose if they were filled with men truly cultivated, accomplished; capable of understanding and appreciating all that is great, in the realm of mind, knowing how to write properly in their own language, and in touch with the literary, moral and social questions of the day. In a word our purpose should be to restrict the study of the sciences for all pupils to that which is essentially fundamental, and also to the study of our own literature; of Latin, of general history and of philosophy, and allowing the pupils themselves to choose between the study of Greek and certain parts of the sciences; such in our opinion would be the best means of maintaining the essential-unity of secondary instruction. The same sap should nourish the whole tree, and the only difference should be in the top branches. We can easily believe that an education in which Greek and some other studies are replaced by a more thorough study of mathematics may be a liberal education. There would then be a true equivalence between the degree of bachelor of arts and that of bachelor of science, from the point of view of intellectual and moral culture. At present the diploma of bachelor of science is a certificate granted even in the absence of this culture, which it is attempted to replace by a kind of pseudo-scientific industry.

Our professors of science, whether elementary or special, are compelled to play the subaltern part of preparing instead of educating. They do not teach science; they merely prepare for entering the government schools. Thus both scholars and professors are condemned to a vulgar utilitarianism. The different public schools give a false idea of a true scientific education when they place the standard in the quantity of knowledge rather than in the quality. "We ought not to judge men," M. Vauvenargues has said, "by their ignorance, but by their knowledge, and by the way in which they really know it." *Minerology*; the history of Assyria; the geography of Thibet; Sanscrit; Hebrew, etc.; the

justification of these long programmes is not, it is said, that a knowledge of all the subjects is required, but to multiply options in order to be able to make a proper selection of the more capable minds, and to eliminate others. Now it is a fact that these long programmes only address themselves to the memory, and cannot be regarded as a test of true capacity. Nothing can be more illogical, not to say immoral, than to substitute the mere mechanism of a lottery for the application of real merit and the study of proper subjects. If it is desired to make a selection, because there are too many candidates, the means are simple; we should exact that the degree of bachelor of science should be placed under conditions similar or proportional, especially in mathematics, to those required from a bachelor of arts. Then you would have candidates who, it is quite true, might be less familiar with the details of chemistry or of physics, but who will one day most certainly acquire more honour than bachelors without culture. In the great schools, as elsewhere, it is of more importance to have "heads well formed than heads well filled." In conclusion, the teaching of the sciences ought to be organized with a view to general culture, and with the purpose of forming a true system of the humanities. At the same time we ought to secure the selection of scientific capacities, and thus prepare for the nation a choice number of men of science, of whom it has great need. In order to attain this double purpose it is certainly not the quantity of knowledge which it is proper to consider, yet this is the error which the framers of these programmes have committed in regard to either the lyceums and the bachelor's degree or the government schools. It is of special importance to consider the quality of knowledge, the method and the organization of subjects. The quality of knowledge consists in being rational in place of being mechanical and purely mnemonic; the method ought to be active and philosophic; the organization ought to consider the philosophy of nature and the philosophy of morals. M. Voigt recounts a legend of the Clock of Strasburg. The council, fearing that the maker of this wonderful piece of art might make one still more wonderful for some other city, decided to put out his eyes. He implored, as an act of mercy, that he might be allowed to see and touch the clock for the last time. He approached it, and drew out a small wheel. Then he was blinded. But the clock would no longer go;

the wheels turned but they were out of gear. Now the study of the sciences without philosophy produces the same effect on the brain. The wheels of the brain turn indeed, each in its place, but they too are out of gear, and do not mark the time of day. All unity has disappeared ; it is a machine which is the more easy to throw out of order as it has become more complicated. The little wheel which gave a direction to everything is wanting, and this pretended scientific education becomes an intellectual dissipation. True education ought to form an organism animated by one spirit, governed by one method, and tending to one end. The different sciences ought not to be taught in an isolated form, each by itself, but each as forming part of a whole. They ought to be connected with one another instead of being studied in that disorder which our present programmes offer, and their union ought to present one conception of nature and of life progressively developing itself. The different sciences ought, in fact, to take, notwithstanding the diversity of their objects, one and the same development, both in regard to natural objects and to man himself, and the same mental exercise is afforded whether the mind is occupied with the sciences or with literature ; the mind of a man of genius and the spirit of nature with its universal chain of connections require, in order to be fully understood, a like development of intelligence, and of the powers of perception. Moreover, the philosophic mind will find pleasure in mathematics or in physics, it will give to them an aim, a meaning, and a value, quite other than their "value of commercial application," as Edison would say. The student will not continue to say regarding the formulas of chemistry or of mechanics : What does it matter to me, for I am not going to be a chemist or a machinist ? With that portion of universal truth, and in a sense, of cosmical also, which the philosopher discovers in the partial laws and particular theorems of science, there is revealed a part of the eternal beauty which these laws and these theorems present, they are brightened up by a ray which comes from the infinite.

The power and the scope of philosophy is the supreme standard of the intellectual and scientific vitality of a people : Greece, France in the seventeenth and eighteenth centuries, Germany in the nineteenth are very striking proofs of this. The scientific hegemony never has belonged, and never will belong, but to a

nation distinguished for its literature and philosophy, the progress of the sciences is in inverse ratio to the mechanical and the utilitarian teaching of the sciences, while it is in direct ratio to the progress of literary and philosophic culture. What is said of the political hegemony is also true here. It is not only that German generals have triumphed over the French armies, it is also the speculative geniuses of Germany who for a century have given a direction and an impulse to literature, to philosophy, to German science, to the public opinion in Germany. We have been beaten by the Kants and the Fichtes, by the Goethes and the Schillers, by the Alexander Humbolts and William Humbolts, by the Gausses and the Helmholtzs just as much as by the Bismarcks and the Moltkes.

ALFRED FOUILLÉE.

## IN THE COLLEGE LIBRARY.

IT is not a very spacious room. There is no danger of a stranger losing his way in its labyrinths, or being overwhelmed by its endless shelves, or enticed into a cosy alcove by its rare bindings. As compared with some college libraries it is small, plain and cheerless ; at least so it would seem to one who had not grown used to its bare floors, bare walls and bare shelves. Indeed it has sometimes been said by very good friends of the College that—but it is difficult for one who has handled every volume on these shelves, and to whom some of them are daily companions, to repeat what has sometimes been said. One's home may be humble, but it is sacred ; one's friends may be poor and homely, but they are beloved. So I feel towards the Library. I have known it for a dozen of years, and for nearly a half-dozen I have carried its key. I have handled every one of its volumes, a very large number of which have been added under my guardian care. So you will not expect me to listen graciously to disparaging remarks by unsympathetic outsiders.

Besides, the Library is not without its attractions. Sitting here at the old oak table, we can be quiet for a little. The students are all at lectures this hour. Nothing disturbs the silence save an occasional footstep in the corridor or the tinkle of the street-car bell on the avenue. The room is not large, and it is almost void of ornamentation, but it is not without artistic design, and those recently constructed alcoves suggest possible retreats. The floors, it is true, look sadly poverty-stricken, and, like the shelves, call for fig leaves to hide their nakedness.

Something has been done to cultivate the love of art and to perpetuate the memories of the great departed. Yonder over the door is a fine large picture of the Coliseum. Beside it the speaking face of that Boanerges of Galt, Dr. Bayne, anxious that we continue sound in the faith. That next is Dr. Black, of Kildonan, bidding us to be missionary in spirit. High over all is a marble bust of Michael Willis, sniffing the battle and anxious to join in the fray.

On the opposite wall the benevolent face of Mr. Hall, of Peterboro', one of the College's greatest benefactors, is preserved in oil; and on the pedestal at the door Henry Cooke, of Belfast, keeps watch and ward. A photograph of the Union Assembly, and another of the Free Church Disruption, hang one on either side of the main alcove. These, with a few small paintings and pencillings of Calvin, Wycliffe, Knox and others, are all we can boast of in the way of art. When we think of the splendid paintings in the Scottish colleges, our poor collection seems like so many Christmas chromos. It is not creditable to our Church that the faces of men of genius who stood by the cradle of Knox College should be unfamiliar to the present generation of students. Thoroughly good oil paintings of at least three should be adorning these walls—Michael Willis, Robert Burns, George Paxton Young—to say nothing of members of the present staff. Their old students who, when opportunity offers, run over with grateful remembrances, should not rest until this reproach is taken away.

But we are forgetting ourselves. This is a Library, not an Art Gallery, and while these decorations are desirable, the one great necessity is not pictures but books. Yes, here are the books. Twelve thousand volumes all told, new and old, in languages living, dying and dead. What a glorious company of prophets, saints and martyrs, scholars, poets and preachers!

The great and the sage of each bygone age  
Assemble at my call:  
O happy am I in my poverty,  
For these are my brothers all.

Their voices I hear so strong and clear,  
Like a solemn organ strain;  
Their words I drink and their thoughts I think,  
They are living in me again.

For their sealed store of immortal lore  
To me they must unclose;  
Labour is bliss with a hope like this,  
Toil is my best repose.

That is what the student said with but a few score of his own precious books at his command. What would he have said to the great and the sage, with whom we are here privileged to converse! The Fathers will give us, in their own tongue or in ours, their treasured wisdom. The commentators and expositors are ready

to explain and expound the mysteries and truths of Holy Writ, and the theologians will classify truths "according to their internal relation and real connection." The critics are keen-eyed and the apologists stout-hearted. The preachers are waiting to burst out into eloquent periods, and the missionary heroes, to tell of the triumphs of the Cross. History offers the elixir which makes a young man to be old without wrinkles or gray hairs; and biography reveals the inner life of the world's great ones. Poetry will answer to your call, and star-eyed science, and divine philosophy. Hail and welcome, glorious immortals! With uncovered head and shoeless feet we enter your sacred presence-chamber. Speak to us, reverently we listen. But these noble Dead are dumb to you, because you have so long and with such vain contumely despised them. You thought only of the living--the freshly printed book of yesterday, or the vilely printed newspaper of to-day. To these sages you are a shallow and vulgar person. They stand here waiting audience, but their lips are sealed so long as none but itching ears are within hearing. You must be like them, earnest, patient, truthful, if you would hear their voice to your soul. They never speak to callous hearts. Receptive, responsive, passionate with their own just and mighty passion, come to this great concourse of the Dead. Wait! listen!

So word by word, and line by line,  
The dead man touched me from the past;  
Till all at once it seemed at last  
His living soul was flashed on mine.

That flash illumines. It is inspiration. By it you recognize your brotherhood with the wisest of the race. Never again can you be ignoble. Never again will you wantonly squander hours on gossip or scandal. Wisdom waits your audience. Your converse is with the Dead that cannot die.

Just then there came a wild, startling sound, like a stampede on a Texan prairie. A rush along the corridors, up the stairway, and half a hundred lusty students burst pell-mell into the Library. Lectures had been unusually cramping that hour, and the reaction was correspondingly violent. The majority wanted nothing but room to stretch themselves and leave to howl. One asked for "something" on his "Critical," another for "something" on a prospective debate, and a third volunteered his opinion on the

merits of Orelli, Delitzsch, Cheyne and Smith. When each had been satisfied and all had returned to the class-rooms, I settled myself down again in my chair by the oak table and began to gather up the scattered threads of thought so rudely broken. But they eluded my grasp. I looked at the walls and the pictures, the shelves and the books. But all in vain. I read over the snatches of poetry and tried to make sense out of the prose on the paper before me. I looked again at the all-inspiring books, the great Paris Polyglot, the old Dutch Bible, the bleached Fathers, a rare copy of "Paradise Lost," the Sacred Books of the East, a poetical heap of reviews in the corner, Browning, Ruskin, Shakespeare himself. But all to no avail. The spell was broken.

Whither is fled the visionary gleam?  
Where is it now, the glory and the dream?

Gone; terrified or insulted by the wildness of modern student life. Nothing remains but the cheerless old room, the bare floors and gaping shelves, and the tinkling street-car on the crescent. The rest of the story must be told in plain, understandable, passionless prose.

But there was no story to tell in the first place. What I set out to say was that here is Knox College with seventy-eight enrolled theological students, the largest roll in Canada, the largest theological college in the Canadian Presbyterian Church, the leading theological college in this city of colleges, honoured because of its history, respected in other countries because of its substantial and faithful work—here is this college with all these students and a staff of good professors, struggling along with a library of two thousand good volumes and ten thousand indifferent ones!

The question of college libraries is one of very great importance to our Church. It may be said that the Knox library is the best theological library in Canada. If so, then so much the worse for the other colleges. Or some man whose notions of a library are confined to a few volumes in a glass case, may think that to count volumes by the thousands is doing things on quite a magnificent scale. Let us see how Canadian notions of a college library compare with those of Presbyterians in the United States and in Scotland.

In the United States, Princeton Seminary stands first with 161 students and a library of 48,000 volumes and 17,000 pamphlets. Auburn has fifty-six students and 17,000 volumes. Western Seminary, Alleghany, has sixty-eight students and 25,000 volumes. Union has 140 students and a library of 53,000 volumes and 48,000 pamphlets. Columbia, S.C., reports twenty-one students and 22,000 volumes. In Scotland one cannot but covet earnestly the best gifts, and the Free Church College in Edinburgh has a library worth coveting. The attendance of students this year is about 160, and their library, although but little older than our own, contains about 50,000 volumes. The library of the United Presbyterian College in Edinburgh, where the number of students does not greatly exceed the number in Knox College, is housed in a fine suite of rooms richly carpeted, and contains about 25,000 volumes. These are all strictly Presbyterian theological colleges. Hartford Seminary library has 42,000 volumes. Yale Divinity School reports about 20,000, and the University 232,800. And in Toronto the Public Library, a credit to the city and the Province, contains 70,000 volumes.

Now turn to the libraries in the colleges of our Canadian Presbyterian Church. Our Church has been blessed with a competent portion of the good things of this life—wealth, social influence, and a reasonable number of men of light and leading. We desiderate an educated ministry and pity those Churches whose ministers are not college-bred. But look at our libraries. In Knox College, with seventy-eight regular students in theology and a large number in the preparatory classes, admittedly the strongest college in the denomination, and counting everything in covers, duplicates, magazines, reports and all, there are in the library *barely 12,000 volumes!* And, as everyone knows, many of these are worthless, too antiquated to be of use to a student and not old enough to be relics. Dr. Robert Burns, indefatigable collector that he was, brought many of them from private libraries in Scotland and elsewhere. Old ministers sent their well-thumbed books. Some good additions were made from the libraries of the late Dr. Topp and other friends. All this went to increase the size of the library without increasing its value at the same ratio. Now we are fairly well supplied with Reformation and post-Reformation theology, but in every department the supply of modern treatises is meagre

enough, and this, too, in an age when theological science, like every other department of study, is making rapid strides. The textbooks of a quarter century ago are out of date. The horizon is broadened and the standpoint moved. If our rising ministry is to keep the high places secured by their predecessors it will be necessary to open to them the treasures of truth, and furnish them from the armories of criticism and defence.

We make this statement not without hope. There is good reason to expect the effort now being made to collect \$5,000 for immediate expenditure will be successful. It deserves to succeed. But we must never lose sight of an Endowment Fund. The sympathy of men of wealth should be awakened. In no other way could wealth render so great a service to the Church of the Future.

J. A. M.

*Knox College Library.*

#### THE LIBRARY.

Can freedom breathe if ignorance reign?  
 Shall commerce thrive where anarchy rule?  
 Will faith her half-fledged brood retain,  
 If darkening counsels cloud the school?

Let in the light! From every age  
 Some gleams of garnered wisdom pour,  
 And fixed on thought's electric page,  
 Wait all their radiance to restore.

Let in the light! In diamond mine  
 New gems invite the hand that delves;  
 So learning's treasured jewels shine,  
 Ranged on the alcove's ordered shelves.

From history's scroll the splendour streams,  
 From science leaps the living ray;  
 Flashed from the poet's glowing dreams  
 The opal fires of fancy play.

Let in the light! These windowed walls  
 Shall brook no shadowing colonnades;  
 But day shall flood the silent halls  
 'Till o'er yon hill the sunset fades.

Behind the ever-open gate  
 No pike shall fence a crumbling throne,  
 No lackeys cringe, no courtiers wait—  
 The palace is the people's own!

—OLIVER WENDELL HOLMES.

# Canadian Presbyterian Mission Fields.\*

FIRST PAPER.

## THE NEW HEBRIDES MISSION.

THE vast bosom of the Southern Pacific Ocean is gemmed with thousands of islands, some large, some small, clad in fadeless green, and bright with the smile of perpetual summer. The New Hebrides group, in Western Polynesia, fourteen hundred miles from Australia, extends four hundred miles north and south. The principal islands are Santo, Malekula, Efaté, Erromanga, Tanna, and Ancityum. Thirty of the islands are inhabited. Megellan, the Spanish navigator, discovered this group in 1520; but the Spaniards never took possession. A Frenchman, Bougainville, in 1768 rediscovered the group to no permanent effect. In 1774 Captain Cook, explored the whole group, and, because of its lofty mountains which reminded him of the Scottish Hebrides, he admiringly gave to it the name it still bears.

The islands are rich in all that lends beauty and loveliness to tropical scenes: mountain ranges, clad with forests to the summit; green and fertile valleys, stupendous precipices, deep dark gorges, sunless caverns, coral reefs over which the long waves of the Pacific beat and break in ceaseless play. In some of the islands the fearful throes of the earthquake are often felt, and in some the volcano thunders continually. Fruits abound. Little labour is required to win a living from the cocoanut grove, the breadfruit tree, the banana patch. The people of these islands when first discovered, were sunk in the lowest depths of moral degradation—depths so profound, as to be indescribable on the printed page. Human sacrifices were offered to paltry and cruel gods. Widows were strangled. Infanticide prevailed. Cannibalism was as universal as war; and war was the normal condition of the people. Indeed,

\*Copyright, 1891, by D. T. McAinsh. All rights reserved.

all society in the islands was a dead sea of pollution. Petty tribes separated by a mountain, a stream, or a narrow arm of the sea, treated each other as deadly foes, to be slain and eaten. The whole condition of the people served as a vivid and ghastly illustration of the state into which men sink when left to themselves under most favourable circumstances. Here were tribes, not troubled with an endless struggle for food and clothing, shelter and fuel; fearing no external foe; enjoying abundant leisure; surrounded with all the loveliness of Eden, and with all the wealth a child of nature should desire. Yet they had no knowledge of the true God, and they became thieves, robbers, murderers, and worse, if worse were possible,—treacherous, foul, cruel, revelling in nameless vices, flinging shame upon the very name of man.

In November, 1839, John Williams, the heroic "Martyr of Erromanga," bade farewell amid tears and sad forebodings to his family and flock on Samoa, and sailed away to bear the Gospel of the grace of God to the people of the New Hebrides—for John Williams breathed the apostolic spirit, and was ever planning to carry the light to the "regions beyond." He reached Tanna on November 18th, found shelter at Port Resolution, and settled teachers under the care of chiefs who promised to be friendly. On the 19th the mission party set sail for Erromanga. Although he had succeeded at Futuna and Tanna, Williams was still anxious, for he was aware of the fierce and treacherous character of the Erromangans, and he was sensible of the magnitude of his enterprise. He told his companion, Cunningham, that he had passed a sleepless night from considerations such as these,—“that he was oppressed with the weight of the work, and feared he had undertaken more than he would be able to fulfil; that so extensive were the islands he had engaged to survey, that many years of anxious toil would be requisite, ere he could realize his own designs, or meet the expectations of his friends at home.” On that 20th November, 1839, the fatal blow was struck. John Williams was killed by the cruel Erromangans whom he had trusted and attempted to win by kindness. Harris, who was travelling with the missionary for the benefit of his health, fell at the same place under the spears of the savages. Others of the company narrowly escaped death.

Two Samoan teachers were placed on the islands in 1840; but they were subjected to constant ill treatment, and in 1841 had to be removed. Years passed without any further effort on Erromanga. In 1842, Messrs. Turner and Nisbet, of the London Missionary Society, were settled on Tanna, and toiled there patiently and courageously for seven months, when, to save their lives, they had to flee to Samoa. Other efforts were made to gain a footing on the group, but in vain, till in 1848, Rev. JOHN GEDDIE was settled on ANEITYUM, the most southerly of the islands.

JOHN GEDDIE, whose name like that of John Williams, is for ever associated with the New Hebrides Mission, was born at Banff, Scotland, April 10th, 1815. When John was but a year old his parents removed to Pictou, Nova Scotia. He was an only son, and during a severe illness his parents devoted their little babe to work as a missionary among the heathen. The parental vow was kept a profound secret till after the son had entered upon his career as a missionary. The boy was educated at Pictou—in the Grammar School, the Academy, and in the Theological classes taught by Dr. Thomas M'Culloch. He was licensed to preach, May 2nd, 1837. Before he had completed his course he had solemnly made up his mind to devote his life to mission work among the heathen. A relative in London, had for years sent to Mr. Geddie's father, the publications of the London Missionary Society, with their fascinating narratives of Gospel triumphs in the South Seas. These narratives, and the biographies of the missionaries, had turned the young man's attention to a most inviting field. He entertained the hope, as soon as he was licensed, that the Presbyterian Church of Nova Scotia, of which he was a member and a minister, would undertake a foreign mission of her own and commission him to the work. If this plan failed, he would feel free to offer his services to some other body. He accepted a call to Cavendish and New London in Prince Edward Island, and was ordained March 3rd, 1838. He entered upon his work with ardour, and testified afterwards "that the more his mind was engaged in Foreign Missions, his interest in Home Missions, instead of being lessened, was intensified." In 1839 he was married to Charlotte, daughter of Dr. Alex. Macdonald, Antigonish. He informed her before their marriage of his views with regard to a Foreign Mission, and they were solemnly engaged, should the Lord open the way, to go forth

together to make known the Gospel to the heathen. He formed missionary societies in all the congregations in the Prince Edward Island Presbytery, and urged, in season and out of season, the claims of those who had never heard the Gospel.

Mr. Geddie's "idea" was, that the Presbyterian Church of Nova Scotia should found a mission of her own—send forth and support her own foreign missionary. In 1843, having secured the sympathy of the Prince Edward Island Presbytery, he laid the matter before the whole body through the press. An overture from his Presbytery was presented to the Synod in July, 1843. The overture was sent to Presbyteries, "for consideration, with instructions to report thereon to the Synod, at its next meeting."

The Synod held its next meeting at Pictou, in 1844. This was the first time in history that the project of establishing a mission among the heathen was seriously considered by a Presbyterian Church, or indeed by any Church, in a British colony. The Synod of Nova Scotia had then about 5,000 members. Ministers were few in number and very poorly supported. Congregations were widely scattered; and home-work, educational and evangelistic, was urgent in its demands. Is it any wonder that a Synod so situated should pause, should hesitate, before taking the unprecedented step proposed by the Presbytery of Prince Edward Island? The Synod was attended by twenty-four ministers and fifteen elders. Of the three Presbyteries composing the Synod, Truro approved of the project so far as to recommend the Synod to ascertain from the congregations the extent to which they were prepared to support such missions. Pictou Presbytery disapproved. Prince Edward Island recommended the Synod to proceed. The Synod, after full discussion, resolved by a vote of 20 to 14 to proceed, and appointed a Board of Foreign Missions. I have given these particulars because this was the first occasion on which such a question was discussed and decided in a British colony. We are here at the birth of the Foreign Missions of the Presbyterian Church in this Dominion.

In 1845, the Board reported joyfully to the Synod that they had received \$750, which, with \$250 from the previous year, made \$1,000. They considered this sufficient to warrant the appointment of one missionary. The Synod, by a majority of *one vote*, authorized the Board to proceed to select a field and call a missionary. New Caledonia, a large island not far from the New Hebrides, was the

field first selected ; and Rev. JOHN GEDDIE was chosen "first missionary." Mr. Geddie set himself with characteristic energy to prepare for his life work. At Pictou, in November, 1846, the designation services took place—the first in the history of Presbyterianism in Canada.

In those days to travel from Prince Edward Island or Nova Scotia to the New Hebrides meant much time, toil, exposure to countless hardships and deadly perils. Mr. Geddie had not then the benefit of one mile by railway or one league by steamer. Eight tempestuous winter days were spent between Halifax and Boston. In a small American whaler our missionaries doubled Cape Horn and reached the Sandwich Islands. For three long weeks their little brig battled for life with the tremendous storms at the Cape ; and their case often seemed hopeless ; but at length they reached sunny seas and favouring breezes, and in 170 days from New England found themselves the happy guests of the American Board's missionaries at Honolulu. They had sailed over 19,000 miles.

From the Sandwich Islands Mr. Geddie obtained a passage, thirty-eight days, to Samoa, where he had much happy intercourse with the London Missionary Society's agents, with whom he planned his future campaign. Rev. Thomas Powell, of Samoa, accompanied the Geddies in the *John Williams* to the New Hebrides. After a voyage of observation through the group it was resolved to settle on ANEITYUM, the most southerly of the islands. Its circumference is about forty miles. It is of volcanic origin, mountainous, picturesque, with one safe and beautiful harbor. A coral reef surrounds the island—a reef with occasional breaks. These coasts exhibit scenes as lovely as they are grand when the mighty waves of the ocean roll in upon them, curl high with a crest of foam, and break and pour over the reef into the calm lagoon within. These reefs protect the islands from the rage of the devouring sea.

The missionaries, being left to themselves in their island home, built a comfortable house eighteen by thirty-two feet, wattled, plastered, and thatched with the leaf of the sugar cane. For flooring they had the ground covered with fine coral, and the coral with mats. They built a small house for a chapel and school room. The natives gave no assistance. They were shy, and evidently did not love the strangers. Messrs. Geddie and Powell began at once

to learn the language and to visit the people, penetrating forest and glen, wading streams, climbing mountains, visiting by boat every hamlet accessible from the coast. They thus picked up the language very rapidly, and won, to some extent, the confidence of the people. For the keenly observant natives marked that Dr. Geddie had no cannon, no firearms, no weapons of offence or defence on his premises or in his hands, that his wife and little ones were among them trustfully, while on the other hand the Jesuit Mission and the establishments of the sandal wood traders were guarded by cannon and furnished with firearms. Schools were opened for old and young; instruction in reading, writing and counting was given wherever possible. Constant intercourse was kept up over as wide an area as could be overtaken. At first the Sabbath services were attended by few, for they thought that to attend such services was to confer a special favour on the missionary, and they would ask for payment. The Lord's Supper was celebrated for the first time on Aneityum on the first Sabbath of September, 1848; Dr. Geddie preached in Samoan and in English. Not one of the Aneityumese took part in that communion.

The first person on the island who asked Dr. Geddie to conduct worship was a little boy whom he met one day, and who said, putting his hand to his forehead and covering his eyes, "Come, let us do this." A few other boys were gathered together, and the missionary held a service with them. This boy afterwards became a teacher.

Before the Geddies were many weeks on the island two widows were strangled, their husbands having died. The practice was that the nearest relative of the widow—a son, a brother, or even a daughter—should do the horrible deed. Any feeble, helpless children of the family were also put to death. The missionaries tried at once and earnestly to put a stop to these "horrid cruelties," and the chiefs promised they should cease; but eight cases of widow-strangling came to the knowledge of Dr. Geddie the first year of his sojourn here. Strange to say, even the widow herself was often a resolute accomplice in the tragedy.

In the rainy season, beginning in December and ending in April, high winds, hurricanes and drenching rains are of very frequent occurrence. The natives at Dr. Geddie's station attributed a disastrous hurricane which occurred in January, 1849, to a certain

wind-maker on the island, and they determined to kill him. Nohoat, the chief, led them forth to battle against the wind-maker and his allies. The two "armies" were within sight of each other and indulging in the shouting, threatening and defying that were the usual prelude of battle. The missionary took up his stand between the two armed and furious hosts, warned them of the sin of going to war, declared to them that Jehovah made the winds and hurricanes, and after most strenuous efforts, during which he risked his own life, he succeeded in putting an end to the strife.

For several years there were from six to ten French Roman Catholic missionaries in Aneityum. They made no progress among the islanders; they did not try to learn the language, and they attempted nothing in the way of instructing the people. In 1850 they withdrew.

Mrs. Geddie taught the women to sing, sew, read and write. Her great difficulty was to secure their attendance with even a reasonable measure of regularity, and it was only after months and years of diligent effort that she succeeded.

During his first year's stay on Aneityum, Dr. Geddie had the invaluable aid and fellowship of Mr. Powell, of the London Missionary Society. Illness compelled Mr. Powell to retire at a very anxious and critical period, when the Gospel was beginning to tell on a portion of the population, and people were taking sides for and against the new religion. It is true that a teacher and his wife from Nova Scotia accompanied Dr. Geddie; but, sad to relate, the teacher proved unfaithful, lapsed into evil ways, and was for some time a source of offence and weakness to the mission. A fact so deplorable is not to be dilated upon, but it ought not to be suppressed: for it illustrates the horrible fascination of heathenism over minds and hearts not filled with the love of Christ. There was on Aneityum a small colony of sandal wood traders, excessively depraved persons who hated the Gospel because it interfered with their vices. These people did all they could against the mission; and Dr. Geddie was hateful to them. They stirred up the heathen against him. At one time a plot was formed to burn the mission premises. A friendly heathen informed Dr. Geddie of the fact. His own countrymen were privy to the plot, which, however, was happily defeated by a heathen chief who respected the missionary and desired his continuance on the island.

Gradually the attendance upon public worship increased. Converts multiplied. The keenest enemies were, one by one, attracted to the Christian side. The "Natmasses," or ghosts, or spirits, of which the natives stood in dread, lost much of their power. The converts were instructed to wear some clothing, especially when attending the Sabbath services. It was not an unusual thing to see at meetings men with only a shirt and a black hat; or with a canvas bag with holes for head and hands. Sometimes Dr. Geddie's boat sails would be used for "Sunday best."

For four years Dr. Geddie continued at his post, earnestly appealing to the Church at home for a helper. In 1851 he wrote home, "I read with feelings of surprise and dismay that no movement has been made to fill up the vacancy in the mission. I have struggled alone amid difficulties which I believe have fallen to the lot of few missionaries, and cherished an almost confident hope that help was at hand. Oh, it is sad, *sad*, SAD to learn that I am still to be left in this dark, dreary, inhospitable land without an associate in the missionary work." The Church at home did not know how distressing Dr. Geddie's circumstances had become, for letters in those days were twelve months, sometimes more than two years, in reaching their destination. The teacher who had gone out with Dr. Geddie had actually joined the sandal wood party, and had become a source of anxiety and deep distress to the missionary. When all the facts became known at home strenuous efforts were made to send out helpers. But help was nearer at hand than Nova Scotia.

In May, 1852, a church was formed on the island, the first in the New Hebrides, the first among the Oceanic Negro or Papuan race. Fifteen were baptized. The *John Williams* had revisited the islands after an absence of two years and eight months. The deputation on board were astonished at the progress made. "Had there been two or three missionaries on the island it would have been very remarkable. As it is, it is pre-eminently so." During those solitary years of hard labour, the mission family were often reduced to dire distress for lack of the necessaries of life. At one time Dr. Geddie lay almost in a dying state from fever. All the food he could get was given by a poor shipwrecked sailor out of his own scanty allowance. At the sandal wood station food

abounded, but so bitter, so deadly, was the hatred of the Captain to the mission that he refused to sell anything, a biscuit, a handful of flour, though he knew the missionary and his family were in danger of death. So savage, so relentless was the antagonism of this trader, that incendiarism and attempts at assassination were clearly traced to his instigation.

But now, on the 1st July, 1852, timely help came. Bishop Selwyn, of New Zealand, a valued friend who had visited Aneityum before, and whose friendship for Dr. Geddie was deep and life-long, brought in his schooner, the *Border Maid*, Rev. John Inglis and his wife. Mr. Inglis belonged to the Reformed Presbyterian Church of Scotland. He had been for some time in New Zealand, and he was providentially guided to Aneityum in this time of need. He was speedily settled at Anamé on the opposite side of the island from Dr. Geddie's station. The people received him with rejoicing. Heathenism now fell very rapidly, and the two brave and true workmen toiled together to save, enlighten and train the people. Commodious churches were built, converts were taught to be industrious. Arrowroot was cultivated and sold for the benefit of the mission. The Gospels, the Psalms, Hymns, Catechism, in their own language, were placed in the hands of the people. All were taught to read. Ultimately the whole Bible was given to them in their own tongue, and to-day a larger proportion of the population can read the Word of God than here in Canada!

In 1865, Dr. Geddie with his wife paid a visit to Nova Scotia—their first and last visit. They were the first "returned missionaries" ever welcomed by the Presbyterian Churches in Canada. Dr. Geddie told the story of the mission with a simplicity and pathos that could not be surpassed, and the people never wearied of his thrilling tale. He did much by his addresses and his intercourse with the churches to develop the missionary spirit. He loved the Church at home, but his heart was all the while with his own little flock far away, and he returned to his field with renewed health, and continued his labours till December 14th, 1872, when, in Geelong, Australia, he fell asleep in Jesus—the pioneer missionary of the Presbyterian Church in this Dominion—the founder of the first Canadian Mission to the Heathen in a foreign land. Twenty-four years of life were spent among his beloved Aneityumese. As

his memorial tablet tells, "When he landed in 1848 there were no Christians here, and when he left in 1872 there were no heathen."

In 1877 his faithful fellow-worker, Rev. John Inglis, returned to Scotland, after twenty-five years on the island. He brought home with him the Old Testament translation ready for the press, and superintended its issue by the British and Foreign Bible Society. The whole expense, about £1,200, has been defrayed by the natives. At the time Dr. Inglis retired the whole number of baptisms amounted to 2,100; and the admission to the Lord's Supper to 1,300. Many Aneityumese were trained for teachers, and were of much use on other islands.

Rev. James D. Murray, of Nova Scotia, succeeded Dr. Geddie on Aneityum. In 1876 Mr. Murray soon resigned, on account of his wife's health, and removed to Australia. He was succeeded on Aneityum by another Nova Scotian, Rev. Joseph Annand, who had spent three years on Efaté. Population having decreased, and the Gospel having a firm hold upon the whole island, it was decided that for the future one missionary would suffice. Accordingly Mr. Annand expressed his readiness to occupy a new field, a portion of the great island of Santo, where he is now mastering the third language since his joining the mission. Rev. James H. Laurie, of the Free Church of Scotland, is now in full charge of Aneityum.

TANNA has a good deal in common with Aneityum, but it has its active volcano, ever flaming, fuming, thundering, sending up mighty columns of lava, and often shaking all the land with its explosions. Three Samoan teachers were placed on Tanna, on the 18th November, 1839, just before the memorable death of the heroic John Williams. The natives welcomed them cordially. The great missionary was filled with hope as to the prospect on Tanna, and wrote as follows, the last entry in his journal: "Thus terminated the most interesting visits we have ever yet been privileged to have with a heathen people in their barbarous and savage state, when taking to them the Word of Life; and none perhaps manifested a more friendly demeanour to strangers such as we were among them." In June, 1842, Messrs. Nisbet and Turner, of the London Mission Society, began mission work at Port Resolution; but trouble arose; the natives proved treacherous, and the missionaries had, within six months, to

flee for their lives. Teachers were again placed on the island in 1845, but one of the band of seven was killed, and the rest escaped to Aneityum. Still another attempt was made to introduce teachers, and with the same result. In 1854, when Aneityum had become Christianized, a party of Tannese visited the island, and were greatly astonished at the change they witnessed, especially at the total cessation of war. The marvels they witnessed led them to embrace Christianity, at least they intended to embrace the new faith. Two teachers were sent over from Aneityum, and were cordially welcomed. More teachers were invited and welcomed in 1855, and there were very hopeful symptoms of progress. In 1857, Rev. George N. Gordon visited Tanna; and some of the chiefs welcomed him; but it was thought best he should be settled on Erromanga. Progress seemed to be made in 1858, though there were wars and murders on the island. A gallant band of missionaries arrived: Rev. J. W. Matheson and his wife from Nova Scotia, Rev. J. G. Paton and Rev. J. Copeland, from the Reformed Presbyterian Church of Scotland. These were all located at different stations on Tanna. Dr. Geddie remained nine days with Mr. Matheson. A house was built. The natives continued very friendly. Aneityum could be seen in the distance, so that the feeling of isolation was less intense than it would otherwise have become. Chiefs came with frequent presents of food. All seemed willing to hear something about God—the “unknown God.” Before six months had passed a small church was built, and the attendance increased daily. Messrs. Paton and Copeland carried forward the work at Port Resolution, the principal port of Tanna, with great energy and success.

But a change came. There was a party keenly hating the new religion—a party led by the “rain-makers.” When a drought prevailed the missionaries were blamed for it. Too much rain was in like manner credited to them. Hurricanes, tornadoes, diseases, sudden deaths—all were attributed to the strangers and their religion. Mr. Paton’s wife and babe died—an omen of evil, too. With his own hands he had to lay them in their final resting-place. Mr. Paton himself was stricken down with fever. Mr. Matheson’s health utterly broke down. At his best he was not strong, and he was too ready to overwork himself. When the missionaries on Aneityum learned his condition they went to the rescue, and brought

himself and his wife to Dr. Geddie's station. They continued for some months on Aneityum. Matheson was suffering from pulmonary consumption, and did not realize his own weakness. He spent a few months in Erromanga, and in April, 1860, returned to his own much loved station on Tanna. The other missionaries judged it unwise for a sick and dying man to occupy a station among heathen who regarded sickness and death as the special results of Christianity. On June 18th, Rev. Samuel Fulton Johnston and his wife, from Nova Scotia, joined the mission. Mr. Johnston was a most amiable, faithful and devoted man. He entered upon the work with zeal and prudence. He was surrounded by warlike and vicious tribes. Many attempts were made to destroy his house and drive him away, and his life was in constant peril. He died suddenly on the 21st January, 1861—as truly a martyr to the rage of the heathen as John Williams himself.

A trading vessel called at Mr. Matheson's station and asked that a chief should be sent on board, as they had "something to give him." A chief went on board, and was detained an hour or two. Nothing was given him but *measles*! The same vessel called at Port Resolution and asked leave to land some sick Lifu men. Leave was granted. It was found that the men were dying of *measles*! This was a wicked plot by base men to excite the wrath of the heathen against the mission. From these two points of infection the deadly disease spread over the whole island, carrying destruction everywhere. The rage of the people was beyond bounds, and they held the Christians guilty of bringing upon them the awful calamity. Then came two dreadful hurricanes in January, and a hurricane of unprecedented violence in March, which added to the fury of the people. The missionaries kept bravely to their post, month after month. In January, 1862, another terrific hurricane visited the islands. Mr. Paton's station at Port Resolution was broken up through the violence of warring tribes, and he made his way to Mr. Matheson's station. Early in February their church was burnt down by the heathen, and they threatened also to burn the house. So the missionaries made up their minds to leave Tanna. A vessel, sent by Dr. Geddie, came just in time to bear them safely away. They left many friendly natives behind, who were eager for their return. Mrs. Matheson died on Aneityum, March 11th, 1862. She was one of the loveliest and most devoted

women that ever bore the Gospel message to a heathen land. Shortly afterwards, Mr. Matheson also passed away to his rest and reward. The light kindled on Tanna never was wholly extinguished. Brighter days came. Rev. William Watt and his wife have toiled there for twenty-one years with great success. Rev. William Gray joined in the work in 1872. There is no longer danger to life or property, and heathenism is dying.

Let us now turn to blood-stained, blood-bought Erromanga. We have already noted the tragic close of the heroic and devoted life of John Williams. The banner which had fallen from his hand was taken up and held aloft by Rev. GEORGE N. GORDON, a native of Prince Edward Island, a young man of profound piety, strong faith, rare natural eloquence, and equally rare earnestness of purpose. His early education was extremely defective, but he "endured hardness" and won for himself at Halifax a good training for the ministry. He spent some months of preparation in London, and there married a young lady who proved a true "help-meet" to him.

On June 17th, 1857, Mr. Gordon and his wife were settled at Dillon's Bay, Erromanga. He was warmly welcomed by a few young men who had been under training at Samoa; but the four chiefs at Dillon's Bay were by no means friendly, although they manifested no active opposition. Mr. Gordon set to work to train native teachers. He found the people sunken in every form of vice and wickedness, naked, brutal, cruel savages,—the war-horn sounding continually. They were superstitious, worshipping departed ancestors. Each family had a god of its own. In mean little temples they presented offerings of food to their gods with the prayer, "Accept this offering. Protect me, and kill my enemies." Like most of the people on other islands, they believed no one died a natural death. A neighbour or some other person was blamed. Revenge was sought, and deadly hate was kindled which lasted from generation to generation. This is in part the cause of the constant wars of the heathen. Infanticide prevailed. Women often committed suicide to escape from the tyranny and cruelty of their husbands. For four years Mr. and Mrs. Gordon toiled with unwearying energy to plant the Gospel in Erromanga. They made many friends among the natives. But the dread visitation of measles came, and the missionary was blamed for it.

On May 20th, 1861, Mr. Gordon and his wife were slain by the men for whose salvation they had toiled so ardently. A band of nine savages came from a village eight miles away to do the deed. It was noon. Gordon with some natives was preparing a house for the winter. His wife was in the summer house a short distance up the hill. One of the savages spoke to Mr. Gordon, asking a gift of calico for himself and some others. Eight were lying in ambush. He also asked for medicine for a sick man. Mr. Gordon stopped his work, and was proceeding to his house past the "ambush," when the man who had been talking with him struck his hatchet into Mr. Gordon's spine. Mr. Gordon fell, uttering a loud cry. The men in ambush sprang upon him, and speedily all was over. His wife heard, came out to enquire into the cause of the noise, and was immediately killed. Tidings of the tragedy spread over Erromanga and Tanna, and soon reached Aneityum. Dr. Geddie visited Dillon's Bay. The remains of the honoured dead had been buried by friendly natives, and the little band of faithful Christian converts hastened to Aneityum for safety and sympathy. A native of India named Rangé, a Mahometan, living on Erromanga, hated the missionaries and incited the natives to murder them. He persuaded the natives that the recent death of a chief had been due to medicine given by Mr. Gordon, and that they had no sickness till the Gordons had come. He tried to induce the natives to massacre the little band of Christians at Dillon's Bay. He is held to be at least morally guilty of the murder of Mr. and Mrs. Gordon.

The years 1861, 1862 marked a most trying crisis in the history of the New Hebrides Mission. Measles and diphtheria swept the islands. Dr. Geddie's church had been burnt. Terrible hurricanes had produced widespread desolation. Mr. Johnston had died suddenly. Mr. and Mrs. Gordon had been killed. Mr. and Mrs. Matheson had died. Of eight missionaries sent from Nova Scotia only three were living. Mr. Paton was compelled to leave his station and to seek a change of air for the benefit of his health. But the supporters of the mission were not discouraged. Mr. Paton, by his advocacy of the mission in Australia, secured £5,000 for a mission vessel; and paved the way effectively for securing the active co-operation of the Australasian churches in the mission. The Church in Nova Scotia asked for volunteers to fill the places

rendered vacant by death. Rev. Donald Morrison, Rev. James D. Gordon, Rev. William McCullagh offered and were accepted. Meanwhile a vessel for the use of the mission was built at New Glasgow, Nova Scotia. She was 115 tons burthen, and named *The Dayspring*. In this vessel our newly-appointed missionaries set sail on a sunny October morning in 1863. Messrs. Morrison and McCullagh were married men; Mr. Gordon was unmarried. *The Dayspring*, having visited the usual Australian ports, performed her mission among the isles of the Pacific. Mr. and Mrs. Morrison were placed on Efaté. Mr. and Mrs. McCullagh occupied for a time Dr. Geddie's station on Aneityum, and soon, on the ground of health, retired from the mission. Rev. J. D. GORDON was a brother of Rev. GEORGE N. GORDON, who had fallen on Erromanga, on May 20th, 1861.

The brave and true younger brother took up, in 1864, the banner which the cruel assassins struck from the elder brother's hand, in 1861. He laboured with unremitting zeal and devotion till 1872, when owing, it is believed, to deadly sickness among the people, he too was murdered. It was on the 18th of March. The missionary was at Partinia Bay in his house, engaged in translating the story of Stephen's death as given in Acts. A native called and asked for an empty bottle. Mr. Gordon handed him the bottle, when the savage struck his tomahawk into the missionary's skull. He staggered into his room and fell dead. The murderer seized his axe and fled. Believing natives buried the faithful missionary at a spot which he had himself marked out, in anticipation of an early death. Thus on Erromanga fell Williams, Harris, and the three Gordons, five martyrs of the Cross. Surely Christendom has a stake in that far-off isle. Especially will the hearts of the Presbyterians of Canada yearn over those martyr graves.

Another Canadian—a Nova Scotian—steps at once to the front to do battle for Christ in Erromanga. The valiant young missionary is Rev. H. A. Robertson, who has devoted himself to the work since 1872, and whose efforts have been crowned with abundant success. The murderers, assassins and cannibals of a few years ago are now "clothed and in their right mind." The influence of the Gospel pervades the whole island. Hundreds commemorate the Saviour's dying love at His own table. The missionary and his wife have frequently traversed the island in the whole extent of

it, without fear of danger. Mr. Robertson has shown remarkable tact, as well as zeal and devotion, in his work. Churches, school-houses and dwelling houses, marked with some comfort, are now found on "blood-stained Erromanga."

In speaking of Erromanga we must not forget the four years of devoted work, from 1866 to 1870, by Rev. James McNair, of Scotland. Mr. McNair, was a man of true courage, piety and devotion. Unfortunately he was not physically strong, and he died July 16th, 1870. He was supported on Erromanga by the Presbyterian Church of this country.

EFATÉ was the scene of the brief, but most effective mission career of the Rev. Donald Morrison and his wife. Previous to their becoming missionaries Mr. Morrison was a pastor in Prince Edward Island, and Mrs. Morrison a trained teacher in Nova Scotia. Both feared the Lord from their childhood. Both, when they left Halifax for the New Hebrides, were healthy, strong, exceptionally equipped, one would think, to battle with the hardships and privations of the career they had chosen. *The Dayspring* landed the Morrisons on Efaté in June, 1864. He soon overcame the difficulties that first confronted him, he and his wife easily breaking through the barrier of language and winning the confidence and affection of the heathen around them. Here, as on every island, the missionary had to gather the language phrase by phrase, word by word, from the lips of the natives, and to fix the vocables in written form. The Morrisons taught the heathen while they were learning from them. Their lives and property were safe, and the prospect of a rich harvest was bright. Fever, however, prostrated both husband and wife. Bravely they contended against it. Again and again they recovered and renewed their exertions for their heathen charge. Again and again Mr. Morrison was restored as from the gates of the grave. Gradually his strength gave way, and it became painfully evident that he was threatened with pulmonary consumption. He asked leave to rest in the colonies for the benefit of his health; but he never returned. He died in New Zealand, Oct. 23rd, 1869. He was a man of profound piety, and of implicit and unwavering faith in God. Mrs. Morrison survived her husband a few years, and then died, like him, of consumption. The work they did at Erakor, Efaté, survived; and to-day, that island is nearly Christianized.

The Church in the Maritime Provinces, in 1872, sent forth three young and vigorous men to fill the blanks made by the hand of death, or by retirement. These men were, Revs. J. W. Mackenzie, H. A. Robertson, and James D. Murray. Mr. Mackenzie was appointed to succeed Mr. Morrison; Mr. Robertson, as already stated, was placed in Erromanga; and Mr. Murray was for a time placed in charge of a station in Ancityum. Mr. Mackenzie's labours on Efaté, have resulted in the formation of a strong church, and several stations. Mr. Cosh, for a short time, occupied with success the station of Pango, where now Mr. Macdonald labours.

Rev. Mr. MacColl, of Nova Scotia, was sent out by the Church of Scotland Synod. For a short time he occupied the station on Santo, which Rev. James D. Gordon had founded. He then returned home.

In 1872, Rev. Joseph Annand and his wife proceeded to the the New Hebrides. For two years he occupied Erakor on Efaté, when, owing to his wife's blindness, Rev. J. D. Murray had to give up his station on Ancityum, Mr. and Mrs. Annand were placed in charge of that important post, rendered dear and sacred by reason of Dr. Geddie's labours there. Mr. Annand is the last of the noble line our Church has sent to the New Hebrides. He is leading the invasion of the great island of *Espiritu Santo*, and we doubt not that a rich harvest will in due time spring from the seed he is now sowing.

Let us then call the roll of the men and women sent forth by the Church in Nova Scotia to the far off New Hebrides: John Geddie, George N. Gordon, J. W. Matheson, S. F. Johnston, Donald Morrison, James D. Gordon, H. A. Robertson, J. McNair, J. W. McKenzie, James D. Murray, William McCullagh, Joseph Annand, J. McColl. All were married except James D. Gordon; and the wives deserve to be ranked with their husbands as missionaries, faithful and effective.

The Reformed Presbyterian Church in Scotland entered the field four years after Dr. Geddie's settlement on Ancityum, and rendered inestimable service, first by Dr. Inglis' co-operation with Dr. Geddie, and then by the labours of Rev. Messrs. Paton, Copland and Cosh. After the union of the Reformed Presbyterian Church with the Free Church of Scotland, the Free Church continued the work even with increased liberality. The

evangelization of the little isle of Aneiva, principally through the labours of Mr. Paton, is one of the most delightful results of the New Hebrides Mission. Rev. William Watt and Rev. William Gray are on Tanna; and the fierce people of that island are becoming obedient to the Gospel. At the present moment eight branches of the Presbyterian family are engaged harmoniously in the evangelization of the New Hebrides group, as follows: Our own Church supports Mr. McKenzie on Efaté, Mr. Robertson on Erromanga, and Mr. Annand on Santo; The Free Church supports Mr. Laurie on Aneityum, and Dr. Gunn on Futuna; the Church in Victoria supports Mr. Paton on Aneiva, Mr. D. Macdonald on Efaté, Mr. Leggatt, Mr. Morton and Mr. A. H. Macdonald on Malekula; the New Zealand Church supports Mr. Watt on Tanna; the Otago Church supports Mr. Milne on Gnuna, and Mr. Michelsen on Tongoa; the Tasmanian Church supports Mr. Fraser on Epi; the South Australian Church supports Mr. Gray on Tanna, and the New South Wales Church Mr. Landells on Malo. All the missionaries meet harmoniously in Synod once a year and devise means for the advancement of the mission. No serious difficulty has ever emerged between the various Churches working in the same field. It is evident that the responsibility of evangelizing the New Hebrides must ere long devolve wholly upon the Australasian Churches.

When the mission was planted communication with the home Church was slow and uncertain—a matter of a year, sometimes of even two years. Now there are monthly mails by Australian steamers; and there is frequent communication with all the missionary stations. This is a boon very highly appreciated; costly indeed, but worth all its costs.

The Holy Scriptures are being translated into one and another of the many languages of the islands; and the converts pay all expenses by their liberal contributions of arrowroot. For they are taught to be frugal and industrious, as well as to worship and serve the one living and true God and Jesus Christ, Whom He has sent.

Native teachers have been helpful in a high degree in the islands, sometimes in paving the way for missionaries, sometimes in aiding them day by day in their dealings with the people.

Our Church has had her noble martyrs in these isles. The

tears, the blood, the ashes of our sisters and brethren have consecrated the soil of Erromanga, Tanna and Ancityum. The Mathesons, the Gordons, the Johnstons rest there in their graves till the resurrection. Native Christians have not been less faithful, have been cut down as ruthlessly, and have witnessed as truly of Christ's redeeming love. We know not their names; but they, too, are our martyred brothers and sisters

There is an episode in the story of the mission that ought not to be wholly overlooked. During the absence of Drs. Geddie and Inglis on furlough, a British man-of-war—the *Curacoa*—visited the islands, under Commodore Wiseman. "The missionaries gave the Commodore a memorandum on the loss of life and property that had been sustained by the mission on Tanna, Erromanga, and Efaté." They also furnished interpreters, Mr. Paton acting as interpreter between the Commodore and the Tannese chiefs. *The Dayspring* was in company with the *Curacoa*. Commodore Wiseman patiently investigated all matters brought before him. He desired to impress the savages with a due sense of the power of a British man-of-war. After a full day's warning he shelled and destroyed two native villages; but the people had fled. One man was wounded, and subsequently three were killed when trying to handle a shell that had not exploded when discharged, but which, when they were tampering with it, exploded with terrific effect. No one was killed on Erromanga or Efaté. The missionaries were severely censured for a time for the part they took in countenancing this display of force. Dr. Geddie disapproved of it in the most emphatic manner. Mr. Paton maintained that they simply discharged their duty, and claimed their rights as British subjects.

A matter of interest in connection with the mission is the revelation it made of the deep and unutterable depravity of the white traders who visited the islands, capturing the natives, stealing them, murdering them; communicating to them the foulest vices of the worst criminals in civilized lands, and teaching them to hate, distrust and destroy Protestant missionaries. These sandal wood traders and men-stealers could tolerate murder, cannibalism, and the worst of crimes, but they would not, if they could help it, tolerate the pure religion of Christ.

The population of Ancityum and of other Christianized islands has greatly decreased within the last thirty years. This is due mainly, no doubt, to the diseases which traders have communicated to the natives.

On the Christianized islands life and property are as safe as in the best regulated municipalities in Canada. There is no drinking of ardent spirits. In heathen days they chewed the Kava root, spat the saliva into bowls and allowed it to ferment, thus producing a powerful intoxicant. But the Kava root has been destroyed, and the people are all and always sober. No Christian is expected to use tobacco in any form. In their heathen state they were frantically fond of it; but they now regard it as evil. There is no Sabbath-breaking. The whole of the sacred day is devoted to the public and private exercises of God's worship, "except so much as is to be taken up in works of necessity and mercy."

The experiment which has been made on Aneityum, on Anieva, on Erromanga, on Esaté, is a fresh proof of the adequacy of the Gospel as the grand and all-sufficient agency in the regeneration and elevation of the lowest of our race. What can be effected with a population of two or three thousand will hold true when the numbers are millions. The problem is essentially the same always, everywhere.

The history of the New Hebrides Mission illustrates the necessity of sending to teach and preach in heathen lands men of devoted piety, sound common sense, and burning zeal for the glory of God; men who are willing to be taught and able to learn, as well as apt to teach. A man who has not the fear of God before his eyes may lapse into virtual heathenism. A man lacking common sense is sure to prove a total failure. A sickly man, however admirable as to mental and spiritual qualifications, is unfit to face the hardships of missionary life. Stubborn and self-willed men may scorn the lessons of experience to their own ruin.

It is the declared policy of our own Church and of the Free Church to withdraw gradually from this field of labour, seeing that Australia and New Zealand have such special advantages for prosecuting the work. There are now eighteen missionaries and about one hundred and fifty native teachers, occupying twenty islands. More are required, and no doubt they shall be forthcoming, until these lovely isles become a moral paradise adorned with the beauty of holiness, in keeping with their natural charms and splendours.

France has long coveted this group; but the vigilance of Presbyterian missionaries has hitherto kept the destroyer at bay; and now the influence of Australia is all on the side of continued independence or absorption into the British Empire. French domination would mean the incoming of the Jesuit and the convict, and the utter overthrow of our mission work.

ROBERT MURRAY.