

spirit of bigotry and intolerance is not yet dead, and serve to show what the dominant party in religion will still do when the opportunity presents itself. Circumstances may any day arise even in our own colony calling for united action on our part; and it behoves us therefore to have in readiness an organisation as vigorous and complete as that shown by the churches in their Synods and Assemblies, so that we may at all times be enabled to present a firm and united front to every assault upon individual liberty. It may also be noted that in the proposed Criminal Code there appears such an offence as Blasphemous Libel, and it may be doubted whether at the present time the English Blasphemy Laws are not in force in New Zealand. It is for reasons such as these, then, that I have to ask that your Association will consider the necessity of a Conference such as we propose, and will agree to co-operate with us by sending two delegates thereto, so that the proposed scheme may be carried into effect.

The other Freethought Associations in New Zealand are being communicated with to the same purport. Requesting that you will kindly inform me at an early date of the decision of your Association on this subject,

I remain, your obedient servant,

T. CHEYNE FARNIE.

The Hon. Sec. Wanganui Freethought Association.

WELLINGTON FREETHOUGHT ASSOCIATION.

The Secretary has furnished us with the following report for the month of January;—

Wellington, January 22nd, 1884.

SIR,—Since my last report three scientific lectures on "Fire, Water, and Earth" have been delivered in our Hall.

On January 7th "Ivo" delivered a lecture under the auspices of the Association in the Theatre Royal, entitled, "Satanic Science." There was a fair attendance.

On the 14th instant "Ivo" was to have recited several selections from English and American poets, but on account of the heavy rain and a severe gale, the audience was small, and the programme was not given.

On the 20th inst. we celebrate Thomas Paine's birthday with a "tea fight," conversation, and a dance.

Yours truly,

ALFRED JARDINE,
Hon. Sec.

NELSON FREETHOUGHT ASSOCIATION.

The Secretary sends us a review of the doings of the above Association for the month of January:—

Nelson, January 22nd, 1884.

SIR,—Since my last to you I am pleased to say that at our general meeting held on the 6th of January the progress of the Association was found to be highly satisfactory. After paying all liabilities, and having "Ivo" with us for five weeks, we had a very favorable credit balance. On "Ivo" leaving us we rather dreaded a falling off in the interest taken by our members. Such I am happy to say has not been the case; and moreover, a good Samaritan has sprung up among us in the person of Professor O. E. Hugo, who kindly gave us his first lecture on "Immortality" on the 20th inst., which was listened to with deep attention for upwards of an hour. Although he apologised for not having had time to sufficiently study his subject, it very soon became evident he had gone very deeply and carefully into it. At the end of his lecture he spoke in very flattering terms of the Nelson Freethought Association, stating his gratification at finding so much progress had been made in so small a city, and the earnestness displayed by its members generally. He also went very deeply and impressively into the subject of members being firmly united, not allowing any little disagreements between each other to interfere with the great object in view, stating that in all Societies and Associations, at their beginning, disagreement between members was sure to crop up, which he had unfortunately seen in many places. He promised us another lecture on Sunday next on "Utilitarianism" from a Continental point of view.

A detachment of the Salvation Army has arrived, and held their first meeting exactly opposite my residence. From one or two circumstances that have occurred since I have been in Nelson, I am disposed to think the spot was specially chosen. I have had "War Cries" in several instances placed under my door. My only feeling towards them is that they may do good.

It is on the tapis that Mr. Hugo may on Sunday afternoon next give a lecture, subject, "The Salvation Army."

I am pleased to see that your suggestion in the January number of *Federation* has been taken up, and I sincerely hope it will be a success.

I am, &c.,

EDWARD PLAYER,
Hon. Sec. N.F.A.

WANGANUI FREETHOUGHT ASSOCIATION.

The Secretary has kindly forwarded us the following particulars:—

Wanganui, January 24th, 1884.

SIR,—On the 6th instant, the Wanganui Freethought Association held its first half-yearly meeting in the Academy of Music. The gathering was a large one, and it was shown that on June 3rd, 1883, the Association began with only six members, whilst now the actual membership, active and passive, amounted to 85, most of them being financial to date, which is considered an unmistakable proof of the

vitality of the Association. The papers and addresses contributed by members and friends of the Association during the past half-year were very favorably commented on, the universal opinion being that the Association had within its ranks some very able exponents of Freethought. The financial statement showed a small deficiency, which was at once subscribed in the room, so that the new year might be entered upon untrammelled in a pecuniary point of view.

A library has been formed consisting of some fifteen volumes of Freethought literature, some having been presented to the Association some time since by an unknown friend in the Wairarapa, the others by members. The importance of a library to other organisations of a similar character is looked upon as very great, and I am pleased to see a beginning to this essential part of Freethought propaganda.

I understand the leaders of a section of the Salvation Army have arrived in Wanganui. The result of their campaign will no doubt be looked upon with considerable interest.

I hear that "Captain" Ted Wright seemed surprised at the existence of a Freethought organisation in Wanganui, and expressed the opinion that "It is time we came."

Yours faithfully,

J. J. BUCKRELL,
Secretary, W.F.A.

Science Notes.

A German inventor has recently applied the principle of hydraulic reaction to the propulsion of a boat so successfully as to awaken considerable interest. The principle is very simple, consisting of steam pumps, and tubes through which the water is admitted at one end of the ship and forced out at the other. The German navy officers are especially interested, and by experiment are testing the value of the invention. It is rather remarkable that about thirty years ago similar experiments were tried in the British navy with unsatisfactory results.

During the last cholera epidemic in Egypt the German Government sent commissions to enquire into the causes and prevention of this frightful plague. One of these Dr. Koch, the celebrated biologist, who was the first to discover the "bacillus" or germ of consumption, has satisfied himself that cholera is due to a similar living microscopic organism. The Doctor has now gone to British India to continue his researches in that country. This and other discoveries of late years bear out in a remarkable way the truth of Professor Tyndall's germ theory.

At a meeting of the Academy of Sciences on October 1st, M. Faye argued that the progressive cooling of the earth's crust goes on at a more rapid rate under water than on dry land, and therefore that the solidified crust is much thicker under the ocean than on the continents. Hence he maintains that the liquid mass in the interior of the globe is subjected to far greater pressure under the seas than under the main land, and as this excess of pressure is diffused in every direction, the less dense continental crust must yield to the pressure thus exerted, while the submarine crust, becoming denser and denser, is slowly subsiding.

The question has been raised recently as to whether the earthquake waves, or as (by a misnomer) they are more frequently called tidal waves, are not caused by the depression and upheaval of the dry land. There is no record in the late disaster in Sunda Strait of vessels having met these waves out at sea, though there are heartrending accounts of the terrible destruction witnessed upon reaching the shore; as in some places the disaster was caused by a wave estimated to be fully 100 feet in height, it seems unreasonable to suppose that this could have travelled any distance without being observed by passing ships.

Mr. Jabez Hogg has been carrying out some most interesting experiments on the rapid generation of animalculæ. He took a few grains of dust from a garden wall, placed them in a shallow glass cell, and added a little filtered water. Presently under a powerful microscope were displayed signs of active life; in ten or fifteen minutes two or three perfectly formed rotifers were seen darting about with expanding rotating discs actively feeding. At the end of 30 days fully twenty were observed, apparently in a healthy condition. The water was then allowed to evaporate, when the microscope revealed nothing but fine dust, with no sign of living animalculæ. The cell was then wrapped up in tissue paper, and for 30 days excluded from the light. On water being added again the same