

## Miscellaneous.

### THE GLACIERS OF SWITZERLAND.

Professor A. Guyot prefaced the lecture with a brief allusion to the circumstance of his recent visit, in company with other tourists, to the mountains of Switzerland. After dwelling for a few minutes upon the floral beauties of the region, he passed on to notice his subject proper, "The Glaciers of Switzerland."

A glacier, he said, is a field or immense mass of ice, filling a grand valley, to the thickness of from 200 to 1,000 feet, and extending often as far as nine miles from the place of its inception. From the great height above, when we look down upon these valleys of ice, they appear to be great frozen streams, and such, indeed, they are. If we follow them upward, we shall find that they meet the great snow line that everlastingly keeps its place upon the tops of the cloud-bathed Alps. Go below them upon the mountain side, and you will find at your feet, in many places, great fragments of transparent ice that have fallen off from the glaciers above; and woe to the traveler who incautiously ventures near such spots when whole fields of ice are separated from the main body, and come tumbling over the craggy sides of the great mountains! Many, very many, have thus suddenly been cut off, and forever buried from the sight of their fellows by the massive fragments of the glacier.

So tremendous is the pressure of air caused by their fall, that very often the houses of the inhabitants of the mountain slopes and villages are lifted from their places, and carried uninjured to spots several hundred feet from where they originally stood. This is the case where there has been no contact with the ice—the simple pressure of the air being sufficient to produce the result. Immense trees, that would seem by their circumference to be able to withstand the tornado almost, are often found broken into short lengths by this motion of the earth caused by the falling of the ice.

We have thus commenced our acquaintance with this glacier; let us follow it to its source. This, we will invariably find, is a huge vault of ice, from 20 to 50 feet high, from which pours out a living stream of yellowish water. Trace the rivers Rhine, Rhone, Aar and others of Switzerland, to their origin, and you will find their birthplace in just such vaults as the one mentioned.

From these ice-vaults, the contents of which are continually replenished by the melting snow that caps the mountain tops, we may trace the glacier down to its final resting place, marking its ever varying course—now extending in a direct line for thousands of feet, and then descending a steep precipice, which breaks its surface into countless openings on cavities which reach to the very bottom of the ice. The action of the sun upon this broken surface has the effect of sharpening the edges, until they appear at a distance like a vast array of bright needle-points.

But how, the question is asked, do these immense fields of ice, reaching an altitude of 3,000 feet above the level of the sea, subsist year after year, and upon almost exactly the same spots? Notwithstanding the fact that vast rivers of water flow off from these glaciers at their base, they never appear to have washed away. As already intimated the supply is taken from the snow above the glacier. When this supply is full, the glacier increases in size; that is to say, it progresses or extends in the direction of its lowest base. When the supply is insufficient, the size of the body of ice decreases, and appears to retreat. But this retreat is only apparent, and quite unreal. During the night the traveler may sleep upon the surface of the glacier, with very little grass—gathered from the adjoining clefts of the mountain—beneath him, and not feel any moisture.

In the morning, at about seven o'clock, there is a slight melting of the ice; at eight or nine o'clock a few rivulets may be seen coursing down the direction of the valley; by the hour of noon, immense rivers of water are to be observed running to the foot of the glaciers. The surface of these ice valleys is perforated with vertical holes, which reach downward until often they find an ending place at the bottom of the glacier. These holes are usually filled

with water, and if we follow them downward, we shall find invariably small stones or pebbles, which have been forced through the ice from above by the action of the sun upon them—those bodies being darker than the ice, absorb more of the sun's rays, and becoming heated, melt an opening before them. The contrary is true, of large stones or boulders, which are precipitated upon the glacier from above. Their thickness makes it impossible that they should, within the short hours of a day's sunshine, become heated through, and hence they act as a protection for the ice beneath them, from the burning rays of Sol. Very often there will be found vast numbers of these boulders standing upon sharp pinnacles of ice, several feet high, bearing the appearance of having been lifted by some to their present elevation.—[*New York Times*.]

### THE END OF THE WORLD—A SUMMARY OF PROPHECIES.

A correspondent of the *Carlisle Examiner*, thus sums up the prophecies which have been current in various ages regarding the end of the world:

1. The Jews had an ancient doctrine that the world will last 6,000—2,000 before the Law, 2,000 under the Law, and 2,000 under the Gospel.

2. There was a time when the duration of the world was thought to be bound up with that of the Roman empire, and every comet, earthquake, was regarded as a portent of doom.

3. On being asked by the Bishop of Salome whether the end of the world was near, St. Augustine replied that in all probability a few years respite would be given to it.

4. From year to year, however, the date of the crash was put back, and finally the end of the ninth century was fixed upon, when there was a special expectation and dread lasting till the year 1000, which had been definitely fixed upon as the wind up of all things. During that century many grants of estates were made to the churches and monasteries under the formula, *Termini mundi appropinquante*—whereas the end of the world being nigh.

5. In 1179, astrologers sent letters all over the world, announcing that the world would surely end in September, 1186, amid storms and thunder.

6. In 1524 there was a great terror, as John Stofler, a German seer, had foretold a universal deluge for the following February, in England, France, Spain and Italy. Thousands fled to the hills, and a Professor of Divinity of Alcalá, built himself a boat raised on four pillars. When rain began to fall in February, people said, "Now it becometh!" The four weeks passed over well, the astrologer, says an old writer; "for his excuse said that in his computation he had mistaken and miscounted in their number an hundred years."

7. In 1586, the Sieur Andress announced that in two years the world would come to an end, and that immediately afterward all power would be given into the hands of the Turks.

8. Whiston predicted the crisis in the middle of the last century.

9. A Frenchman, M. Turrier, thought the Anti-Christianism was born about the year 1450, it shall die about the year 1710. "This may happen sooner, but I do not see that it can go much further than 1714." He fixed the millenium for 1785.

10. Richard Brothers, an oracle in 1790, proclaimed that the very loud and unusual kind of thunder heard in January last, was the voice of the angel mentioned in the 18th of Revelations, and fixed the 15th of August, 1793, for the destruction of London.

11. "Write, write, the Spirit says write," prophesied an old woman in Suffolk, 94 years ago, "the High Priest shall never have another Christmas dinner."

12. Dr. Cumming says it will come in 1867.

### HOW PROVIDENCE HAS INJURED US.

The *New York Evening Post* continues to make its free trade arguments spicy and amusing. Here is an example.

What are called "the bounties of nature" are likely to be the death of us in this country, and unless we can manage to knock in the head the geologists,

botanists, and mineralogists whom our colleges have been training up of late, and who go about discovering new deposits of what is absurdly called "mineral wealth" we shall presently go near to be ruined.

For instance emery is an article of great use and necessity in various industries; until lately we have imported it from abroad, and have been able to obtain it, in spite of the distance it has to be transported, at a tolerably reasonable rate. But not long since a natural deposit of emery was discovered in Massachusetts, and the owners of it, desiring to work it, immediately demanded of Congress to lay a heavy duty on foreign emery by way of "protecting" them. The result is that all who use emery will have to pay a higher price for it than before, simply because we are so unlucky as to possess a natural supply of it at home.

The same is true of borax, an article of absolute necessity in many useful industries. Until lately we obtained borax from Europe; not long ago some prying mineralogists found a supply in California; and instantly Congress is asked to lay a heavy duty on foreign Borax to "protect" the owners of the home supply. This is to say, because Providence gave our country this element of natural wealth, tinsmiths and others are to pay double for all the borax they use.

The same is true of several earthy coloring materials, chromes, which have lately, we hear, been discovered and utilized in Maryland; the manufactures there have at once demanded "protection" by a heavy duty on the foreign articles; In all these instances we have reason to complain that the Creator has cursed us with this which people call "natural wealth." If we had no supply of emery in Massachusetts, our workmen might continue to buy cheap emery abroad; if California had not a supply of borax, we might continue to buy cheap borax; and so on to the end of the chapter. If the geologists and mineralogists do not stop discovering things in our soil, we shall presently have to pay double for everything. It is already one of the greatest calamities which can happen to the country to discover a new bed of salt or other important mineral. The richer we are, the poorer we are likely to be made; the more bountifully Providence has blessed us, the more thoroughly we are fleeced; and the geologists, in searching out our mineral wealth, promise to make themselves and their science a curse to the people.

### THE SUFFERINGS OF THE CRETANS.

Stillman, the United States Consul on the island of Crete, thus sums up the sufferings of the people at the hands of their Turkish masters:

The crops of all the refugees are seized by Government and sold for its benefit, and all their property declared confiscated by proclamation of the Commissioner, no distinction being made between those having emigrated and those going into the mountains with the combatants, the property of all absentees being forfeited *ipso facto*. Yet the emigrants are not allowed to return, and the families in the mountains are not allowed to descend unless they bring all their fighting relations with them, a father being held responsible for his sons, even though he has no knowledge of them, and a wife and children for the husband and father. Besides this, many have been banished arbitrarily, without time to arrange their affairs or dispose of their property, and have gone penniless to Greece. In the mountains things are still worse; most of the people there have not had bread for months. In some places they have their flocks still, and with these and boiled herbs they subsist. The permission to descend and submit, conditionally on all their male relations going with them, is rendered almost worthless by continual massacres of those who attempt it, the Mohammedan troops not making much question of their right to kill Christians wherever they find them.

I am not unaware of the great demands on American charity from our own population in the Southern States, or disposed to urge any diversion of benevolence from home work, but it is so difficult to understand the depth of destitution into which the Cretans are plunged from any American experience that I can scarcely hope for such gene-

rosity as other times would have shown. But if our people could imagine the whole Christian population of Crete, nearly 200,000, turned adrift on the world as destitute as the possession of part only of their wardrobe permit them to be, no houses, no crops, their cattle, sheep, goats, mostly stolen; their olive trees cut down for fire wood in many places, and their fruit and mulberry trees wherever the army has marched; their hidden stores searched out by torture and destroyed, and, except those who have driven their flocks into the mountains, no man rich enough to give a mouthful to his starving neighbor—if, I say, our people could imagine this, I am sure that the heart would pull a little harder at the purse-strings for it, and not even feel tempted to blame the Cretans because they suffer all this unflinchingly, even to death, rather than give up their hopes of freedom.

HOW TO PRESERVE TEETH.—A writer in the *New York Evening Post* states that it is deficiency of phosphate of lime in the system that causes bad teeth, and adds: What shall be done to give the teeth a proper proportion of phosphate of lime? the simple answer is, eat it; because we know of no other process by which it can be introduced into the blood, and unless it is found there somewhat abundantly, it will never get into the structure of the teeth, inasmuch as they, like the rest of the body, are composed of the materials which are brought into the blood by the digestive organs. In order to eat it, one must eat certain kinds of food which are coming now into general use in cities, and which contain in themselves, large quantities of it—such as grits, oatmeal, Graham bread, one-fourth of an inch of the surface of potatoes. The reasons, furthermore, may be found in the following: The bone of a tooth is composed of phosphate of lime to the extent of 62 per cent. The enamel has in it about 85 per cent. of this phosphate, and if less than this amount is found in proportion to the whole tooth, its structure is very easily dissolved away by the acids which form in the mouth from particles of food in process of decomposition, from confectionery and other sweet things, which, in the mouth, rapidly acidify. Some of the above-named articles of food should constitute a part of the daily diet from the time of first evidence of a child's existence to the fourteenth year of the same, at which time the character of the teeth may be considered finally settled; they will be found of a good shape, hard, with an excellent enamel covering, without deep seams crossing each other on the surface, and liable to decay, but the enameled caps will be found perfectly formed—which will save the patient an immensity of fear, pain and expense. The wonder is very often expressed that the teeth of people of the present day are so frail, while in past generations they have been so much more generally sound. It would not be far from correct to reply that the art of refining flour has now so much more perfectly robbed it of the bran of the wheat, that we get from our white bread, just so much less phosphate of lime; also dyspeptics, and those who dread dyspepsia, knowing they ate potato-skins when young, blindly say they and such trying food injured their stomachs, and hence neither themselves nor their children are allowed to eat them; and it appears to sum it up, that children of the last two generations, throughout the civilized part of the world have happened to be deprived of just the sources of the supply of phosphate of lime in their food which have robbed their blood of the wherewith to make good teeth and bones, so our teeth and general bony frame-work but illy compare with those of the back-woods settlers, who personated our grandfathers and lived more independently of fine boiling cloths, and ate up the entire potato, relishing rye and Indian bread, all to our present mystification and the blessing of their own physical happiness.—[*S. F. Bulletin*.]

A SCLAVONIAN EXHIBITION.—An Ethnographic Exhibition is to be held in Moscow in the autumn of this year. The exhibition is to comprise all the various tribes of Slavonic descent, and from a political point of view, will be no less Austrian and Turkish than Russian. Even the Prussian Slavonians will not be forgotten, nor the few forlorn Vindians, the last remnant of the once numerous aboriginals of Brandenburg and Saxony.