plants. Towards the end of the ninth century, when a catalogue of books in Japan was compiled by order of the emperor,, the Imperia l library was found to contain 16,790 volumes in 40 departments—and this in spite of a disastrous fire some years before. In more modern times, the long peace of 250 years witnessed great progress in natural history, as well as in literature, the arts and all peaceful industries. The present botanical garden of the Imperial university was established in 1681, and the mastery af the Dutch language in the middle of the eighteenth century gave a great impetus to botanical science as well as to Japanese civilization generally. Zoology was more backward, seemingly to have been comparable to that of Europe in the middle ages. But one of the results of the restoration of the emperor to his full power, in 1868, which is being followed by such a social revolution as has been seldom witnessed, has been established of the modern school of zoology, which dates from the appointment, in 1877, of Prof. E. S. Morse of Salem, Mass., to the chair of zoology at the University of Tokys.

The first use of the phonograph in telegraphy seems to have heen in Spain, where receiving operators were unable to take down rapidly enough messages received by telephone and repeated the messages into a phonograph. This repetition, being heard at the sending end, serves also as a control for the correctness of the message.

Fumigation with corrosive sublimate was once suggested to Prof. Konig of Gottingen as a means of freeing his room from bugs. Finding the remedy most effective, all kinds of insects being killed, he inferred that the same process would destroy the microbes of scarlet fever, measles, and other contagious diseases. He now states that since adopting this method, he has never seen a second case of contagious disease that could be attributed to infection left in the room in which the patient had been confined. The fumigation is a simple matter, from an ounce and a half to two ounces of corrosive sublimate being put on a plate over a chafing dish, and the doors and windows being closed for three or four hours. The person entering the room takes the precaution of holding a sponge over the mouth and nose to prevent inhaling the poisonous vapor. The apartment is thoroughly aired, and the next day sulphur is burned to neutralize any mercurial fumes that may still linger. After another airing, the room is then ready for occupancy.

A new laboratory turbine, claiming great steadiness, noiseless and economy of water, has been designed by a German chemist, and is to be made in Berlin by Koehler and Martini. A circular piece of wire gauze, rotating in a thin cyclindrical space, is attached to the axle. The water-jet strikes the edge of the gauze at a tangent, escaping by a pipe in the center opposite the axle, and may readily be made to give a speed of 4,000 revolutions per minute.

Prof. Eschenhagen of Potsdam has continued his researches on the small variations of the earth's magnetism first announced by him last year. The most important oscillations have a period of about thirty seconds, and occur chiefly between 6 a.m. and 6 p.m., but on two days since last October—November 7, 1896, and February 4, 1897—shorter waves, lasting twelve or fifteen seconds, were observed. Groups of waves have been noticed on several occasions. The cause of the phenomenon is uncertain, but it is believed to be atmospheric.

At the beginning of a recent thundershower after a warm and windless day, M. Maurice Despres of Cordova Spain, noticed electrified drops that cracked faintly on touching the ground and emitted sparks. The phenomenon lasted several seconds, ceasing as the air became moistened.

The interesting example of cold light and low temperature combustion made known by M. Marius Otto, through a report to the French academy by M. Friedel, opens a new field for research. A peculiar luminescence was first observed during the aspiration of ozonized air by means of a water aspirator. As the water issued from the aspirator, it became luminous, and continued so for five or six seconds,a flask filled with it being distinctly luminous in the dark. The experiments were made with ozonized oxygen,containing about half a grain to the quart. The luminosity thus produced by the contact of ozone and water appears to be due to the presence in the latter of organic matter of animal or vegetable origin, which is consumed with the effect stated.

The eyes of sailors and marines on French war vessels are reported to have suffered severely in consequence of the use of the electric light. Eyes in which the iris is not heavily charged with pigments—such as grey or blue eyes—are found to be more liable to injury than brown eyes. Two causes—the intensity of the light, and the action of the ultra-violet or chemically active rays—are assigned for the eye troubles. The use of spectacles that will intercept the ultra-violet rays—such as yellow uranium glass—is recommended by oculists. Dark blue glasses are provided for those who operate the search-lights, etc., but these do not seem to give complete protection in all cases.

A French scientific journal condemns the high standing collar,declaring that the laws of health require that the neck shall he bare, or nearly so, and that collars should be loose and turn down. Cases of narrow escapes from suffocation by tight collars are not rare, and a wealthy American found dead on a train arriving at Paris, a few years ago, was proven to have been strangled by his high collar. Such an accident is not even unlikely. as there is a point in the throat close to "Adam's apple"where pressure will stop respiration at once and bring about asphyxia.

## IN THE CUMBERLAIN MOUNTAINS

Winesap, Cumberland Co.,
August 25th, 1897.

Knowing that your valuable paper is read by most of my friends and associates at home, and not having time to write to each of them, I hereby drop a few lines to your paper. I am now in the very tops of the mountains, where the waters and breezes are almost supreme. If there is any place in Tennessee where the atmosphere is pure, right here in Cumberland county is the place. The soil is not so good as it is in the valleys, but the people are doing well. They have a fine range for cattle, and this industry is carried on extensively.

My labors since writing you before have been mostly in Henderson, Decatur and Perry counties, where we have made many lasting friends. The sentiment of the people has taken a wonderful change, and if the Elders would return who were here about ten years ago, they would think it was another country. Why a man is not up to the times unless he invites a Mormon Elder home with him and treats him well. There is hardly a night that we do not get two or three invitations to come and dine with the people. We have out two invitations today, one for dinner and the other to come in the evening and eat watermelons and fruit with a merchant. So you see the fulfilment of the prophesy of President Woodruff. We are holding a protracted meeting in this neighborhood, starting in Monday night and will finish up Sunday night. We are having good audiences and they seem to be very much interested. And the seed of truth which we are sowing will some day bring forth a bounteous harvest.

My companion and self have baptized thirteen honest souls (all grown people) in the last five months, and there are more in the same localities, who will soon be "buried with Him in baptism." We had the pleasure of organizing a Sunday school in Perry county, which was in a flourishing condition when we left it, and with the help of the Saints in the same county we commenced a church building and finished it to the square, and the Saints expect to finish it this fall.

I wish to mention here Brother Ezekiel Inman, to whom much credit is due for his help. He is the one who donated the land and also helped to purchase the lumber.

If you will notice the reports of the different Elders you will see that they are sticking their picks and climbing so high, that the Elders of two years ago would feel entirely out of place among them now. Yes, missionary labor seems to be work, work, or you will be left in the fog. It is labor night and day in the defense of truth and righteousness, and the people are being reached as they never were before, and those who are fighting God and His servants are almost trembling with fear. They know that truth is mighty and will prevail.

Well, to my friends I can say,that my labors are getting dearer to me every day, and my health seems to be better than ever before. So brethren, don't dread a mission, for we are having plenty to eat, and our dreams are mingled with soft white feathers. All we need to do is to prepare ourselves, dust up our rusty brains, and God will do the rest.

I would take pleasure in reading a letter from my friends, and I give them special invitation to write to their friend and brother,

S. S. SANDERSON,
Crossville, Cumberland Co., Tenn.

## SALT LAKE TEMPLE.

The Salt Lake Temple will be closed during the ensuing General Conference from Monday, 4th, to Wednesday, 6th, October, 1897, inclusive.

Thursday, the 7th, will be devoted to the performance of baptisms for the dead, and on the two days following—Friday and Saturday, October 8th and 9th—the other ordinances will be attended to.

The changes from the usual rules indicated in the above notice are made with a view to accommodating the Saints from a distance who will come to attend Conference.

LORENZO SNOW,
President.

## INFORMATION WANTED.

No. 31 Muncaster Road,
Preston, England,
August 9, 1897.

A person by the name of George Heyes of the city of Blackburn, Lancashire, England, wishes to get some information as to the whereabouts of one William Maymon, who emigrated from this country about 1840, and returned about fifteen years ago for a short time and then went to Utah again. If he can be found, he may address in care of Wm. M. Gerrard, No. 23 Bay street, Blackburn, Lancashire, England. There have been two or three replies from the notice that you published for me in June. Thanking you for valuable space in your paper,

J. W. GRACE.