

banner county, and from this place on our way west Elder L. Dana and I held several meetings and some more were added to the Church. On arriving in Hamilton county we met Elder Tanner and Marsh. Here we again changed companions, I and Elder Jos. Marsh started for Jackson county, where we arrived after a walk of two hundred miles. We would often stop by the way and hold a few meetings, and in this way continue to spread the work of the Lord.

Once more in a permanent field of labor we commenced in earnest to hold a series of meetings. And it was during our first meetings that we had the pleasure of baptizing four more souls, one of the converts being a Baptist preached. Later two more have put on the armor.

October 1st and 2nd we met in conference at Bristol, Liberty county, Fla. Here the Saints have a nice little church built. I asked a gentleman while inquiring for the way, if he could tell us where the Mormons had built their church? He said there was a place just over the hill that they called Utah. And, indeed, it seemed as though we had found the people of the Lord when we met the next morning with Elders Cutler and J. Z. Brown and six more of our brethren. Our conference was a success, for the Elders were full of the Spirit of the Lord and the words of eternal truth were made plain to the hearers.

We returned back to our field of labor with renewed energy. October 30, two more Elders joined us just arriving from home—Monson and Olson. I and Elder Monson continue the work in this county. We have just finished a series of fifteen meetings at this place, and yesterday we led five good honest souls into the waters of baptism. A leader of the Methodist church gave the deeds of the property and other papers of trust into the hands of those whom he was once associated with, and went down into the waters of baptism, and his wife and other members of the family followed. He was captain of a company in the late war, and has represented the people of his county six years in the legislature.

I wish to say that the "News" is a welcome visitor. L. W. ROBBINS. Cottondale, Jackson Co. Fla., Nov. 12, 1897.

SCIENTIFIC MISCELLANY.

The secret of Germany's manufacturing progress has profoundly impressed a deputation sent from Manchester to study continental institutions. This commission visited at Crefeld a textile and dying school of world-wide fame, which is not only magnificently equipped for teaching every detail of what all nations have done and are doing in matters pertaining to textiles, but which makes every effort to assist manufacturers and merchants. A technical school found at Darmstadt, a city of only 57,000 inhabitants, is one of several now having equally liberal provision for giving the most advanced electrical institution. Such schools have been stimulated by the success of the large and costly chemical laboratories, where the most eminent men of science encourage pupils to give five, six and even seven years to study, the result being the easy lead of German and Swiss manufacturers, especially the former, in the world of colors and fine chemicals. An example of what this policy of scientific training has done may be seen in the great color works at Ludwigschafen, on the Rhine. This establishment in 1865 had thirty workmen, while it now employs 5,000 men, including over 100 trained chemists, its chemical laboratories themselves being on the scale of those of a great

university. This factory is but one of several, the annual production of Germany's coal-tar industry alone being \$50,000,000.

The name "nitrogurets" was given by Grove, in 1841, to what he supposed to be compounds of metals with nitrogen, produced by using six Grove cells on a concentrated solution of chloride of ammonium with anode of zinc, copper, cadmium, or other metal, and cathode of platinum. A German chemist records recent researches at the new Davy-Faraday Laboratory that show these substances to be either the pure metals or a mixture of the metals with their oxide.

A twenty years' record shows about a fourth of the days at Greenwich Observatory to be sunless, while only 14 per cent of the days from May to September have 10 hours of sunshine.

A novel wave motor, pumping water by the rise and fall of a buoy sliding on an upright tube, was some months ago designed by Mr. B. Morley Fletcher, an English engineer. A large experimental apparatus is now being practically tested, a dismantled vessel having been moved a half-mile out to sea as a workshop. The motor, with a total weight of between eleven and twelve tons, is kept upright by a submerged table of steel about twenty feet in diameter, which is provided with suitable mooring chains, and from this base the steel hydrometer tube, about thirty feet long and a foot in diameter, rises to a height of ten to thirteen feet above the normal water level. The oscillating buoy, made from steel boiler plates, is of cylindrical form, about ten feet in diameter and five feet deep. The piston is fitted into the tube a few feet under water, the tube serving as a practically stationary piston-rod, and the pump cylinder has a maximum stroke equivalent to ten feet. This apparatus delivers water—for driving turbines or other purposes—with a pressure equivalent to that of a fall of fully 300 feet. Among the many uses for which it is believed this motor will prove valuable is that of automatic fog-horns, kept in constant action by air compressed by the pumps, and that of light-buoys, or beacons, lighted electrically from a small power stationed on the buoy itself. It is estimated that, with a wave oscillation of only one foot thirty times a minute, each of the eight-ton buoys so numerous on British coasts should yield 32 horse-power for driving machinery.

Astronomers are divided in opinion as to the possibility of photographing details on the discs of planets. Dr. J. J. See contends that it is impossible, because the motion of the air and the cumulative action of the photographic plate must always give an enlarged and blurred image, while the eye is able to select what is seen at favorable moments. On the other hand, Prof. F. L. O. Wadsworth sees no insurmountable difficulty in the way of photographing even more than we can ever be sure of seeing directly through telescopes up to twelve and fifteen inches in aperture, and is endeavoring to settle the question by trial.

The diamond-making process of Dr. Q. Majorana, an Italian experimenter, causes crystallization directly without a solvent. The carbon, heated in the electric arc, is subjected to a pressure of 5,000 atmospheres by the action of an explosive on a small piston, minute diamonds resulting.

The vexing subject of the cause and prevention of the efflorescences that so often appear upon buildings of brick and sandstone has been carefully studied by Hans Gunther, a German chemist. The source of the trouble may be the clay (in the case of bricks), the water employed, the ashes and pyrites of the coal used for burning, or the mortar. Herr Gunther, however,

finds that the discoloration is most liable to result from pyrites in the clay or chemical interaction between bricks and mortar. Most clays contain pyrites, which give rise to immediate efflorescences in the presence of magnesia, but in the presence of lime show nothing until after decomposition with the alkalies of the mortar. Sulphates—and not nitrates, as has been suggested—are usually the disfiguring salts. A suggested remedy is barium carbonate or chloride as this would bind the sulphuric acid, forming an insoluble compound, if used in the bricks.

Geosote, a combination of valerianic acid with creosote, is an oily liquid, with a sweetish taste, that seems to have the medicinal properties of creosote without its burning effects. It is administered under the skin, or in small doses in muclage to children or in capsules to adults. It appears to be a decided tonic in debility, useful in intestinal catarrh and in infantile diarrhoea where other remedies have failed, and especially valuable in pulmonary consumption and tuberculous glands, joints and bones. In seventy-six cases of phthisis reported by Dr. Rieck, only thirteen failed to be benefited by this remedy.

From tests made in the vicinity of Sheffield, England, Mr. W. C. Williams finds that the proportion of carbonic acid in the air is distinctly greater in towns than in suburbs, that a marked increase is produced by fog or snow, also by very high or very low barometric pressure, but that rain exerts no decided influence. The carbonic acid of respiration is not evenly distributed through a room, as many physiologists have maintained. In lofty rooms it was less near the ceiling than near the floor, but rooms 9½ to 16 feet high had much more carbonic acid near the top the excess being greatest at night.

All the observed phenomena of Le Bon's so-called "black light" are found by M. Becquerel to be attributable to ordinary red and infra-red rays. These pass through ebonite and extinguish the phosphorescence of sulphide of zinc.

SOUTH CAROLINA CONFERENCE.

Society Hill, S. C., Nov. 19, 1897.

Our annual conference was held last May when, on account of illness, Elder Kimball, president of the mission, was not here. A month ago, Elder S. P. Oldham, president of our conference, received word that Elder Kimball would meet us in conference on Nov. 13th and 14th, accompanied by Elders Lyman and Cowley of the Apostles' quorum. We immediately began to send word to all the Elders and a great many Saints and friends. The conference was held in the same place as it was last May, when Elder J. W. Musser visited us instead of our mission president. Saints and friends came from far and near, some even coming by team from northeast Georgia, nearly 300 miles. The largest gathering of Latter-day Saints ever congregated in the South came to see and hear some one whom they had never seen, yet loved and trusted. Our largest congregation was about 500 and Brother Lyman remarked to them "I wonder where you all come from; the woods are full of you."

The fore part of the week had been quite cool and threatening, but when Friday night came the heavens were all clear as could be, and so it remained until Tuesday evening, when we finished our Priesthood meeting, then a few clouds hove in sight. The Spirit of the Lord was with us in power and many—we may say all—were pricked in their hearts and also made to rejoice.

The Apostles blessed the Elders,