SCIENTIFIC MISCELLANY

Plant-Food Pills—Sources of Acetylene's Dangers—Copper-Plated Aluminum—Dark Matter—A New Expanding Alloy—A New Tribute to Jenner—Life of Metals in the Sea—An Odd Delusion—Colored Sounds.

A novel method of feeding plants grown in pots is credited M. Georges Truffaut, a French horticulturist. The seeds of the living plant are first ascertained by analysis, which the salts necessary for a certain number of months are weighed out and formed into a "pill" by enclosure in a metal covering, and the pill is planted in the pot. The salts slowly diffuse through the metal without acting on it, such regulation of the thickness of the metal and solubility of the salts being said to be possible as to give a pill to last best either three or six months. It is not clear what advantages are expected to justify the expense of personal analyses, but it is stated that large well-rooted plants are grown in pots of less than half the usual size.

Much of the danger attending the use of acetylene, according to Prof. Vivian B. Lewes, may due to the making of the calcium carbide from impure materials. An appreciable amount of sulphur, phosphorus or silicon compounds in the coke may give rise in the resulting acetylene to phosphoretted hydrogen and similar gases liable to spontaneous ignition, and giving off on combustion products injurious to health and to fabrics. The pure acetylene can be decomposed abruptly into carbon and hydrogen by contact with a detonator or by heat, the danger however, being slight between two atmospheres of pressure and greater as the pressure increased.

The successful plating of aluminum with copper has been announced by a German named Wachwitz. Many objections to aluminum are thus overcome, and the cost of copper is so little as not to add materially to the weight, while the union of the two metals is so perfect that plates may be rolled or stretched without peeling. The copper-covered wires may be plated with silver or gold.

Five or six years ago so-called 'dark meteors' were observed by M. du Celler Muller to cross the moon's disc. Announcements of this discovery were received with much scepticism by astronomers, some of whom suggested that the dark bodies were birds in flight, others that they were seeds floating in the air, and still others that they were portions of dust in the eye of the observer. Subsequent observations have proven beyond all doubt, if we may accept as conclusive a recent paper to the British Astronomical society by Mr. Fritz Hopman, that the objects are really bodies moving in space outside the earth's atmosphere. The size of these bodies varies greatly, most of them appearing very small but two having looked as large as the lunar crater Tycho, and their apparent velocity also is very different for different meteors, the passage across the lunar disc having occupied from a fraction of a second to three seconds. The dark meteors have been seen passing before the sun, too, in considerable number.

Curious results have been obtained by M. Guillaume in experiments with alloys of iron and to 45 per cent. of nickel, the tests being made to determine the metal most suitable for measuring instruments on account of permanence in length under varying temperature. A rule made of an alloy with 25 per cent. of nickel, and annealed, continued to elongate when kept at a lower temperature. An alloy containing 22 per cent of nickel expanded on heating considerably more than ordinary steel, but with 27 per cent of nickel the character of the metal was entirely changed, the alloy scarcely expanding at all.

Vaccination has received fresh endorsement from the late severe epidemic of smallpox at Gloucester, England. Dr. Sidney Coupland reports a total of 1,578 cases, with 434 deaths, the mortality having been 40.4 per cent among the unvaccinated and only 8.8 per cent among the previously vaccinated. Only 2 cases, however, of the 697 accidents were severe were among the vaccinated. The severity of the epidemic is attributed to the large number of unvaccinated children.

The best color for school excellent boards is stated by an authority to be green white, with sufficient varying of shade, and extra colors of canary yellow and a clear dark green. Black is the worst of all for the eyes.

The effects of sea-water on metals during prolonged immersion have been studied anew in France, various metallic objects dredged from the harbor of Brest having been presented for examination. A bronze arquebus, supposed to date from the end of the sixteenth century, was found to contain somewhat more than 88 per cent. of copper, about 9 per cent of sulphide of copper, about 2.5 per cent tin, and traces of lead, and the metal was in an excellent state of preservation. Iron was the case with a 24-pounder, with the bronze guns of the English vessel Mary Rose, which been recovered after being under water 282 years. Cast iron shot found at Brest, however, had become so soft that they could be cut with a knife; but wrought iron objects were a little better kept, having a crust of small metallic iron rust. The same effects on iron were noted in the cannon of the Royal George, after being about only 2 years.

While alchemy has been revived in the United States, where, indeed, it has gained a fresh hold in England. The mystery of this instrument is explained by Prof. C. H. Wadsworth, of the Michigan School of Mines, who has often shown to his classes that if any tough twig flesh is grasped with the fingers upward, the branches entering the clenched hands from the sides farthest apart, the twig will bend downward whenever the grasp is tightened. The hand the grasp is more intense. Water or no water, mineral or no mineral, the result must always be the same when the conditions are fulfilled, and it can be easily understood. Prof. Wadsworth adds, how an ignorant operator may deceive himself into the perfectly honest supposing that some occult force, said to be in his hands, forces the fork downward.

Color-hearing is found by Dr. W. B. Colman to be of two kinds, in one a transparent colored film seems to appear in front of the person on hearing certain sounds, as the tones of pianos, musical notes, or particular musical instruments. In the second group each letter or word, when spoken or thought of, is brought to view in a characteristic color. Dr. Colman regards the phenomena as "associated sensations," analogous to shivering at sight or thought of a piece of ice, or at the squeak of a slate pencil. The colors are rarely the same in two individuals.

Interesting Conference in Sutterland.

Louisen Str. 36, Darmstadt, Hessen, Germany, Jan. 1898.

To the Editor:

Trusting it may prove of interest to the readers of your valuable paper, I pen you a short account of the East Sutterland conference. On Christmas day three public meetings were held in Winterthur, and the following day, Sunday, December 26th, two public meetings and a Priesthood meeting were held in Zurich. President Peter Lauenstock of the Swiss and German mission, Secretary William F. Olson and Adolph Merk, translator for the Swiss, were present. The following named Elders were also present from the Swiss mission: E. E. Bullock, John Nagel, W. H. Zollinger, W. H. Mathes, Otto Rohner, Adolph Mafen, C. K. Gerber, N. Hansen, Fr. Fritschnecht, Jacob Jacob, F. W. Petrone, C. Vatermann, C. H. Miles and Bruno L. Brown; and of the local Swiss and German Saints from the neighboring branches and conferences and a large number of strangers, inquirers and friends. All the meetings were well attended.

The first meeting was held Christmas morning at 10 o'clock, in the hall of Gashof zum Lamm at Winterthur. The speakers were Elders Otto Rohner, N. Hansen, Fritschnecht and C. C. Nagel, main subjects spoken upon were. The mission of Christ, His atonement and its blessings to the world. A clear comparison was made of the teachings of men with those of Christ, the importunity of individuals to minister in the ordinances of the Gospel was clearly shown; and the subject of the revelation of the Gospel through Joseph Smith was dealt with at some length.

The afternoon meeting was held at 1 o'clock. Although the hall was very large, there were no vacant seats. Elder Adolph Merk was the first speaker. He expressed his joy and testified of the presence of the Spirit of God, emphasized the fact that the word of God has again been revealed to man, and bore a strong testimony to the truth of the Gospel. Elder Bullock occupied the remainder of the time, and spoke under the influence of the Spirit of God, in such a degree that strangers and Saints unitedly testified to its being one of the happiest meetings they had ever attended. The principles of God were the subject of his remarks. After giving a clear definition, he showed conclusively the fact that the signs by which one may know the kingdom of God, are not those which are in the eyes of this kingdom are. He then proved that the kingdom of God is not to be found among the so-called religions of today, and that the Gospel of Christ, as revealed to Joseph Smith and now taught by the living oracles of the Church of Jesus Christ of Latter-day Saints, is the only religion of today. He then showed the necessary laws and characteristics to distinguish it as the kingdom of God. The speaker was particular to bring forth Scriptural proof to substantiate each statement made in his argument. He bore a strong testimony to the mission of Joseph Smith as a Prophet of God and to the restoration of the Gospel in its fulness.

The evening meeting was opened at 6 o'clock. Elder L. Rod C. Snow spoke on the importance of revelation and W. J. Olson on the subject of prophecy.

Sunday morning at 8:30 o'clock a Priesthood meeting was held in Zurich. Reports were given by the Elders of the East Sutterland conference, and without exception the Elders testified to the onward advancement of the work of the Lord in this portion of the world. The missionaries are full of zeal and strengthened by the wise counsel and encouraging words of our president, and shall return to our fields of labor with renewed energy and vigor.

The public meeting was held at 2 o'clock, Sunday afternoon, in the commodious hall of the Casino Hottingen." Elder Charles H. Mills was the first speaker. The Book of Mormon was the subject of his remarks. He gave a short but lucid synopsis of its contents and cited passages in Holy Writ to prove the divinity of the Book of Mormon. Elder C. Vatermann was the next speaker, testifying of the "apostasy" of the earlier church from the Gospel, but its restoration through the Prophet Joseph Smith. Elder C. Muller spoke of the general plan of the Gospel and of the first principles.

The evening meeting was opened at 6 o'clock. Elder Lauenstock occupied the time. His remarks were very interesting, bearing directly upon the subject of prophecy. Many article were read showing the views of great men of today regarding the Latter-day Saints, and clearly proving that the Lord is bringing about a great change in the minds of the people, and that public opinion is becoming favorable.

During the entire session of the conference, excellent music was furnished by the local choir, and is quarted by Elders Olson, Petrone, Miles and Brown.

Before closing I wish to testify to the great by experienced by the Elders when in the path of their duty. Although frequently cast down, our lessel once in Zion, we can all truthfully say that last Christmas was one of the happiest days in our lives. We doubt if we could have enjoyed ourselves more had we been at home. We know our mission is filled with the spirit of his mission and is "the right man in the right place," and his inspired wisdom is a blessing to us. We encourage any Elder to give heart and soul to the advancement of the glorious work of the Lord.

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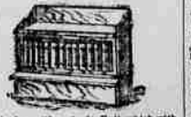

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NOTICE IS HEREBY GIVEN, THAT IN pursuance with and under the power and authority granted to and vested in the undersigned trustee, by Frank Hall and Nellie Hall, husband and wife, of Salt Lake City, Utah, to Hook & Co. of mortgages on page 21 of the records of said Salt Lake County, the undersigned trustee will sell at public auction, to the highest bidder for cash in lawful money of the United States of America, at the hour of 11 o'clock a. m. of the 11th day of February, 1898, at the door of the Salt Lake County Court House of said Salt Lake City, Utah, in said Salt Lake County, Utah, the following described property, situate in said Salt Lake County, Utah, to wit:

Lots 1 and 2 in block 10, in Kimball's Addition to Salt Lake City, according to the official plat and survey of said addition on file in the office of the County Surveyor of said Salt Lake County, Utah, to satisfy the indebtedness secured by said mortgage, and the costs and expenses of sale, which said indebtedness is now due, owing and payable, and which said sum is now due, owing and payable, and which said sum is now due, owing and payable, and which said sum