

much bigger than my thumb and badly swollen feet, indicating the dropsy caused by impoverished blood, said that she was the eldest of five brothers and sisters, the father and mother both dead. She was clad in a single ragged garment, dirty beyond description, and was the worst case of itch I ever beheld. We bought some medicine for the disease and explained its application and provided the family for food for a few days;—but what good will that do in the denths of their misery and the hopelessness of their future? If the readers of the "Deseret News" could have been with me that day in Jaruco, they would not rest until aid societies were formed for the making of garments for these wretched creatures. Elaborate clothes and cast-off finery are not needed; but sacques and skirts of serviceable cotton, made in various sizes, and blouses and trousers for the boys, would be an incalculable boon.

The United States will send food through the bounty of the government, but it rests with my country women to cover some of this nakedness. In the last lot of supplies that arrived in Havana came a large lot of black buttons, sent by some generous-hearted mercant. "How useful!" exclaimed Miss Barton as she gazed upon it; but it seemed to me that some garments upon which to place the buttons would be of more service just now. Another case was that of a good-looking, refined woman, perhaps 35 years of age, dressed in neat but shabby black with the saddest eyes I ever saw. She said that two years ago she and her husband were in good circumstances, owning a small plantation upon which they employed six men and their wives. A few days after Maceo's raid the Spanish soldiers came in for pursuit. The latter inquired which way the rebels had taken. They did not know, being out of the line of Maceo's march, and therefore could give no information. Believing that they were trying to screen their friends the Spaniards killed her husband before her eyes and the six other men on the plantation and burnt all their buildings to the ground her only daughter, 15 years old, was shot while attempting to shield the father and the baby in her arms received a bullet wound in the back which crippled it for life. She has her land—and nothing else but her sorrow and is now among the hungry reconcentrados.

I hope we did one little grain of good in the prison, but am not sure of it, as Spanish promises amount to little. We found an old man named Matamoros in a dark and noisome cell where he had lain for two years, apparently forgotten. He had been an insurgent at the beginning of the war, but gave himself up when the promise came to release all those who voluntarily came back from the field. He was promptly released; but arrested next day "on suspicion." And here he has been since, in almost total darkness and wretchedness beyond description. Now he is merely a breathing skeleton, too weak to raise his head, with the most terrible eyes I ever saw in human countenance. When the door was opened the horrible odor of the unventilated hole turned us faint. With a faint howl, like that of a dying beast, the old man called for water. A heavy jug of unclear water stood near his bed, but a strong man could hardly have lifted it, and there was no cup. He said he had been fed a spoonful of rice that day, no more, and that he was perishing of thirst and hunger. We hastened to the house of the Spanish commandante and begged his excellency, as a special favor, to have the man, Matamoros, removed to a cleaner and lighter cell and that friends outside be allowed to bring him food. The commandante was politeness personified and promised all

we asked. If we had requested that the doors be thrown wide open and the man set free, he would no doubt have promised just as readily. A gentleman residing in Jaruco agreed to telegraph me that night if any change had been made for poor Matamoros, and up to date, two days later no telegram has been received.

FANNIE B. WARD.

SCIENTIFIC MISCELLANY

The smoke problem seems to have been solved for factories in a very satisfactory way by an Austrian engineer, Herr Fritz Maier. The solution depends upon closed furnace doors and slow feeding without admission of air from above, and it is effected by means of an automatic stoker, which drops the fuel in small quantities on the front end of the fire, and another automatic arrangement that shovels the fuel along the fire. The apparatus is cooled by water, which as it becomes heated is used to feed the boiler. Perfect combustion is claimed, and a trial of six months in a factory near Vienna is reported to have resulted in a saving of 33 per cent in fuel and 90 per cent in labor, one stoker doing the work of ten.

What he calls the "sense of return" in pigeons and other animals is regarded by M. Pierre Bonnier, in the light of the latest investigations, as not due to a sixth sense excited by the earth's magnetism, but as an extraordinary development of the memory of direction or of the power of keeping bearings. Whatever it may be, this sense is one of nine functions of the inner ear. This sense exists in man, but it has fallen into disuse, and it is in those species dependent upon the instinct for existence that it has attained great power.

Some marvelous feats of seeing through opaque objects that have excited much wonder at Montpellier, France, do not stand the rigid tests of science. A committee of the Academy of Science and Literature hid two envelopes containing prepared cards in their coats and placed a third in a box with half of an exposed photographic plate at a house a quarter of a mile away. Only the contents of the box were described, after an hour and a half, and fogging of the plate on development showed that the box had been opened.

Roentgen rays have been found to act on vegetation like very weak light in experiments by Signor G. Tolomei.

Volcanic action on a stupendous scale seems to have convulsed our globe at the end of Cretaceous, and beginning of Tertiary times. It was at this period that were deposited the immense lava-sheets of the Deccan of India, which cover some 200,000 square miles, or an area greater than that of New England and the Middle States combined, and have been regarded as the grandest example of the work of volcanoes in the world. Lava deposits, even more vast, are now believed by Newton and Teall to have been made in the Northern Hemisphere at the same period. From the geological collections of the Jackson-Harmsworth expedition, it appears that Franz Josef Land is formed of fragments of an ancient basalt plateau, which, from the distribution of similar volcanic rocks, is supposed to have once included Spitzbergen, Jan Mayen, Iceland, Greenland, the Faeroes, the Hebrides and North Ireland in one continuous area of lava-made land, most of which has since sunk in the North Atlantic ocean.

The long-familiar laboratory method of drying the air by means of a mois-

ture-absorbing agent has been borrowed by a Frankfort inventor for a patented dry barrel or box for preserving vegetables and other substances. The new apparatus is simply a box with a false bottom of slats, under which is placed a metallic tray containing caustic potash. The vegetables, fruit, etc., are placed on the false bottom, and the air—admitted only through the bottom—is dried before reaching them by passage over the potash. One charge of the drier is claimed to last six months.

An indestructible ink for writing labels on glass bottles is thus prepared, according to a German chemist: Into a solution of 20 grammes of brown shellac in 150 cubic centimeters of lamp spirit is slowly poured a solution of 35 grammes of borax in 250 cubic centimeters of distilled water, a suitable coloring matter—such as one gramme of methyl violet—being then added.

Typewriters' cramp, it appears, has come to take the place of writers' cramp. We are told, however, that the discomfort of such a disease is more than offset by the enforced relief from the corset that the use of the typewriter is bringing to female operators.

Hidden flaws in guns, engine cranks, railway wheels, propeller shafts, and other steel castings, are prevented in the process of Mr. Ellis May by an ingenious use of vacuum chambers. The mould is placed in an air-tight chamber, from which the air is exhausted. This chamber is surrounded by a series of other vacuum chambers, each connected with the central chamber by valve-controlled pipes, and in this way a reserve of vacuum is produced. At the moment when the steel is poured, the controlling valves are opened, and the residue of air in the casting chamber is sucked into the surrounding chambers. The air and gases in the fluid metal rush out and diffuse themselves in the vacuum, and the result is a flawless, homogeneous casting.

The Russian province of Kursk is to be one of the most remarkable areas of magnetic disturbances yet known. M. Moureaux reports that the difference between theory and observation are so great that it is not possible to draw isomagnetic lines, and magnetic force is as great as it would be in the immediate vicinity of the magnetic poles. The dip of the needle ranges from 48 degrees to 79 degrees. At two points about 450 yards apart the declinations are minus 11 degrees and plus 45 degrees, and the variation at two places about a mile and a quarter apart is from minus 34 degrees to plus 96 degrees. Nothing near the surface to cause these anomalies is known to exist.

It is a remarkable fact that of over 100 finds of iron meteorites only nine have been seen to fall, while of over 400 finds of stony meteorites more than one-half have been seen to fall. Mr. H. L. Preston finds several reasons for believing that the iron meteorites are more the crystallized metallic nodules contained in the larger and more conspicuous stony meteorites.

IN THE EUROPEAN MISSION.

[Millennial Star, Feb. 10.]

Releases and Appointments.—Elder Edward C. Rich has been released from the Cheltenham conference and appointed to labor in the Nottingham conference.

In compliance with a request from President Woodruff, Barnard J. Stewart, traveling Elder in the London conference, has been honorably released to return home and he left Liverpool on February 9, 1898.