

MISCELLANEOUS.

Scientific and Practical Ballooning.

Ballooning owes its origin to the discovery, about 1780, of hydrogen gas, by Cavendish, in England, and its extraordinary lightness. The first experiments to prove its levity were made by inclosing small quantities of the gas in air tight bags and allowing them to ascend into the upper regions of the atmosphere.

The first human being to ascend was M. Pelatier, who ventured up to a height of about 100 feet, with a rope attached to the car, by which it was drawn back. The same gentleman, accompanied with a friend, soon afterwards made an ascension to a height of 3,000 feet, descending at a point about five miles distant.

It was at once made subservient to purposes of meteorology and physics, and as early as 1794, during the French revolution, was employed by the French as a military machine for making reconnoissances.

During that memorable siege 65 balloons were sent up from the beleagured city, carrying in all 911 passengers, 363 pigeons and two and a half million letters.

The two great physicists, Biot and Gay-Lussac, made two ascents in 1804, to decide some important meteorological questions. They brought back from a height of about 20,000 feet a sample of the air, which was carefully examined and found to be identical in character with that at the surface.

In 1863, Nader attempted to take photographic maps while floating in the air, but failed.

The great problem of steering balloons has been studied and experimented upon by many of the ablest scientists and mechanists in France and the world, but hitherto with no very satisfactory success.

In this experiment the problem of steering was solved, although only to a slight degree—sufficient for only a very moderate movement of the air, but quite insufficient for anything like even a moderate breeze.

Hidden Dangers.

The people of Vienna were thrown into quite a state of excitement soon after the terrible Bremerhaven affair, because a police agent, moved by that terrible catastrophe, had seized and thrown into the Danube three boxes of dynamite which were found in an exposed locality.

THE BRITISH COAL INDUSTRY.—The estimate of the amount of coal raised in Great Britain is 130,000,000 tons; of this amount less than 5,000,000 is exported.

How THEY DO IT HERE.—A Frenchman who has lived in the United States for some years, says: "When they build a railroad in America, the first thing they do is to break ground."

GERMANY is going to send over here several officers of the mining department, with instructions to study up our mining industry.

Cutting Steel With Soft Metal Discs.

Prof. B. S. Hedrick, of Washington, read a paper at the Detroit meeting of the American Association for the Advancement of Science, explanatory of the mode and the essential character of the operation by which soft iron is made to cut hard steel.

Celluloid.

Celluloid is the name given to a recently devised compound resembling ivory, and which is now used for making of billiard balls, hair brushes, for the manufacture of teeth, and in general, for almost any use to which ivory may be put.

NEW EXPLOSIVES.—A new explosive compound has been introduced in Europe, and the name of "Vigorate" has been given it. It is formed of 25 to 50 per cent. of nitroline, nitrate of potash 15 to 25 per cent., chlorate of potash 10 to 30 per cent., and 15 to 35 per cent. of cellulose.

EATING QUAILS.—It has often been said and printed that no person could eat a quail, each day, for 30 consecutive days—that, owing to some peculiarity about the flesh of that bird, the attempt at such a gastronomic operation would often lead to such a nauseous loathing as would utterly forbid the entrance to the stomach of even the twentieth bird.

THE FUTURE OF PETROLEUM.—Although petroleum is not iron, it is so closely connected with it that its ups and downs have a very marked effect upon certain forms of iron and its manufactures.

VERY MINUTE ANIMALS.—When Lieutenant Berryman was sounding the Atlantic, preparatory to laying the ocean cable, the quill at the end of the sounding-line brought up mud which, on being dried, became a powder so fine that on rubbing it between the thumb and finger it disappeared in the crevices of the skin.

DR. PETERMAN, the great German geographer, expresses himself satisfied that the diamond fields at Zimbarwe, Africa, are identical with the Ophir of the Bible, from which King Solomon is said to have conveyed gold and ivory and precious stones for the construction of the temple.

THE ACTION OF SALIVA.—M. Petit recently communicated to the Societe de Pharmacie de Paris the results of his experiments on saliva. He had found that one gramme of ptyaline had the power of dissolving from 10,000 to 20,000 grams of starch, producing a quantity of sugar varying between 3,500 and 7,000 grams.

The cinabar company on Applegate, Jackson county, Oregon, are now burning a large quantity of brick to use for their furnaces preparatory to commencing operations on an extensive scale the coming season.

S. F. MARKET REPORT.

GENERAL MERCHANDISE.

Table listing market prices for various commodities including Beans, Flour, Sugar, Coffee, Tea, and other goods. Includes sub-sections for Canned Goods, Coffee, Tea, and Domestic Produce.

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