

or wax; and on the other end of the gold lines, set the bottle electrified: then bend the springing wire, by pressing it with a stick of wax till its ring approaches the ring of the bottle wire; instantly there is a strong spark and a stroke, and the whole line of gold, which completes the communication between the top and bottom of the bottle, will appear a vivid flame, like the sharpest lightning. The closer the contact between the shoulder of the wire, and the gold at one end of the line, and between the bottom of the bottle and the gold at the other end, the better the experiment succeeds. The room should be darkened. If you would have the whol filletting round the cover appear in fire at once, let the bottle and wire touch the gold in the diagonally opposite corners. *I am, &c.*

B. FRANKLIN.

Science News Letter, August 1, 1931

METALLURGY

Atoms Are Wanderers Even In Most Solid Metal

ATOMS, even the heavy atoms of lead, are wanderers. Prof. J. G. von Hevesy, of the University of Freiburg in Breisgau, has been investigating their properties. Lead atoms are constantly in motion, even in solid metal, he believes. In an alloy of lead and gold, at a temperature half again as high as that of boiling water, the atoms wander through a space of a hundredth of a cubic inch in a day. When there is nothing but lead in the lump, however, moving about is not nearly so easy.

Science News Letter, August 1, 1931

MEDICINE

Father Gives Baby Malaria By Blood Transfusion

THE DANGER of giving malaria by blood transfusion or by injections of whole blood for other purposes such as the prevention of measles was called to the attention of physicians by Dr. I. R. Jankelson of the Boston City Hospital in a report to the American Medical Association.

Dr. Jankelson described the case of a father who unwittingly gave malaria to his new-born baby in this way.

The father, an Italian, who had been living in Boston for the last twenty years, had been complaining of stomach trouble for nine or ten years. He was being treated for stomach ulcer with more or less success, careful examination having ruled out any other cause of his trouble.

At about that time his wife had a baby. This infant suffered from hemorrhages and in the course of treatment was given several ounces of the father's blood. The child developed malaria. Careful examination of the father's blood revealed the presence of the malaria parasite.

The father recalled that at the age of five, when he was living in Italy, he had had malaria, and that about once or twice a year he had a chill, lasting about one hour and followed by profuse perspiration.

Because a recipient of blood is usually in a precarious state of health, he is entitled to every safeguard against transmission of disease from the donor, Dr. Jankelson pointed out.

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(From page 71) and the frequency of rainfall is not much greater if immeasurable amounts, or traces, are also included. In January, February and March, measurable rainfall occurs on the average one day each month while in practically all other months the average number of rainy days is considerably less than one-half. The greatest number of rainy days in one year was in 1913 when measurable rainfall occurred on 16 days and the least in 1929 when no rain, not even a trace, was recorded. The greatest number of rainy days in any one month was five in March, 1918, but the total monthly precipitation was only 0.75 inch.

"A daily rainfall of one inch or more has been recorded at Greenland Ranch only four times in nearly twenty years and the greatest amount ever recorded in 24 hours is 1.40 inches."

Old Tales Exaggerated

With so much heat and so little water, one would naturally expect to see the valley an absolute, staring desert, with no leaf or stem of plant life and not so much as an insect to speak for the animal kingdom. Such were the descriptions published by early California writers, who never took the trouble to visit the region, but relied on the tales of horror told by survivors of trapped pioneer trains, added to by their own imaginations.

But the fact is, that most of the floor of the valley is covered with vegetation. Several botanists have worked in the place, and their lists total somewhere in the neighborhood of 200 species, ranging from short-lived annuals to the tough and useful mesquite. Some of these, like sedges and cattails, live along the edges of streams that run down from the mountains and wander out, losing themselves in flat, marshy meadows. Others, however, bravely live on the dry upland, holding their gray-green leaves like defiant banners.

And where there are plants there are also animals. There is a special variety of the bighorn or mountain sheep that is found only in Death Valley and on its bordering mountain ranges. Threatened with extinction a few years ago, these animals are now given the benefit of an absolute closed season and are staging a hopeful come-back. There is an astonishing development of rodent life, including two most interesting fellows, the trade-rat or pack-rat and the long-legged, leaping kangaroo rat.

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