

COLORBLINDNESS

was first described by

Dalton

who had it, and therefore could wear red, though he was a Quaker.

THE NEXT CLASSIC OF SCIENCE

fully begun by another but uncompleted, because they promise new and perhaps more brilliant results. I must remark here that Herr Oersted himself encouraged me to pursue this research further. . . .

Metallic Aluminium

The method for reducing and exhibiting this metal rests, it seems to me, on the decomposition of aluminium chloride by potassium and on the property of aluminium of not oxidizing in water. If a tiny piece of aluminium chloride be warmed in a glass tube with some potassium the violent reaction, accompanied by fire, shatters the tube. I then tried the reaction in a little platinum crucible, which succeeded very well. The reaction is always so violent that the cover must be fastened on with wire, so that it will not be thrown off, for the reaction, which gives off only a moderate amount of heat in the open, will suddenly of itself raise the crucible to red heat. Platinum will scarcely withstand it. On this account, to guard against possible contamination of the reduced aluminium with any platinum which may be lost, I always afterward made the reduction experiments in a little porcelain crucible, and went about it in the following way: Put into the bottom of the crucible a little piece of potassium free from carbonate, from which the kerosene clinging to it has been carefully removed. Cover this with a little piece of aluminium chloride of about the same volume. Then heat the crucible, covered with its lid, at first gently, until the combustion appears, which keeps going by itself, then strongly when this last is over. The largest piece of potassium with which I have attempted to work at one time up to now is ten balls the size of peas; in a Hessian crucible one could manage to operate with larger amounts. With these quantities the amounts of the reacting substances must be arranged either so that there is so much potassium that the reduced mass is alkaline, or so much

excess aluminium chloride that it can be seen to evaporate at the moment of reduction. The reduced mass is as a rule fully molten and blackish gray. The *fully* cooled crucible is dropped into a glass of water, in which the salt mass, under gentle heating releases evil-smelling hydrogen gas and a gray powder separates, which on closer inspection especially in sunlight appears as composed of little scales of pure metal. After it has settled, pour the liquid off, put it on a filter, wash it with *cold* water and dry it. It is the metal aluminium.

Science News Letter, March 14, 1931

PHYSIOLOGY

Fish Blood Found Rich in Phosphorus

STUDIES upon the composition of the blood of different animals which have just been completed at Cornell University show that the blood of the lower forms such as fish and turtles contain nearly three times as much phosphorus as that of higher vertebrates. Fish have long been reputed to be high in phosphorus but the various forms in the blood have not been studied previously. Most of the phosphorus of fish blood is concentrated in the red cells.

This high phosphorus value for fish blood is interesting in the light of the meat diets used for rearing trout in most hatcheries. Brook trout grow to maturity upon food that is very rich in phosphorus, such as beef liver. One might expect bloods rich in phosphorus among the carnivorous fish but not among the omnivorous, such as carp. The bloods of both pike and carp were analyzed, however, and found to be equally high in phosphorus.

Science News Letter, March 14, 1931

ARCHAEOLOGY

Hands of Clay Provided For Egyptian Burial

HANDS and feet modeled in terra cotta are a strange feature of the latest tomb discovery at Giza, Egypt, where Prof. Selim Hassan, archaeologist of the Egyptian University, is excavating near the great Sphinx.

The tomb that has been discovered belonged to a woman of the fourth dynasty, about 2900 B. C. The artificial hands and feet are believed to be a unique discovery in the archaeology of Egyptian tombs. It is speculated that they were placed in the tomb to be of

use to the woman in the world of the dead.

To find so old an Egyptian burial not plundered by robbers is unusual, and great interest is manifested in the tomb furnishing of the period. The sarcophagus of white limestone lay in the center of the tomb chamber, facing east. Seventy-eight alabaster vases were counted in the room's furnishings, and pottery vases besides. Skeletons of two animals were near the sarcophagus, and also a table of offerings.

The woman buried here was adorned with gold necklaces, bracelets, and anklets, and on her head was a fillet of gold of unusual workmanship.

Science News Letter, March 14, 1931



16 or 35mm

EDUCATIONAL FILMS

With Spoken Lectures

or

Classroom Titles

March's Thesaurus Dictionary

Complete, authoritative, gives you *instantly* the exact word for every shade of meaning. See description, full page advertisement, issue of February 21, 1931.

Write for "Three Men and a Book," an entertaining booklet showing the advantages of March.

Historical Publishing Co.

Dept. SCX, 1334 Cherry St., Phila., Pa.