

Helium Placed on Open Market

Chemistry

The discovery of new natural gas fields which have a high helium content, together with improvements in the method of extraction, have resulted in this gas being placed on the open market for the first time in the United States.

Helium, used chiefly for floating balloons, from the penny toys to American dirigibles like the Los Angeles, has until now been under government control. Besides the field at Fort Worth, Texas, which has been supplying the government with 500,000 cubic feet of helium a month, a new one is now being opened at Amarillo, Texas. This new field will provide practically an unlimited supply, certainly enough for the needs of the War and Navy Departments, according to officials of the Bureau of Mines.

Helium was originally discovered by two astronomers, Janssen and Lockyer, who found it while making spectroscopic observations of the sun in 1868. It was first discovered in a mineral, cleveite, in 1895, by Sir William Ramsay, who later observed the fact that helium is always found in natural gas near radioactive minerals.

This gas, besides floating balloons, lessens considerably the danger of caisson work by shortening the recompression time and reducing the number of cases of "bends" and also makes it possible for deep-sea divers to work safely at much greater depths. Since it is available commercially it is being used in metallurgy and for filling radio tubes and glow lamps. Other uses are developing as the supply becomes generally available.

Science News-Letter, June 30, 1928

Antlered Female Deer

Zoology

Three authentic specimens of female deer equipped with antlers, which are usually the exclusive property of the bucks, are reported to the Journal of Mammalogy by Joseph Dixon of the University of California. They were all secured in the same general region, in the neighborhood of Truckee, Calif. The horns were sufficiently developed that all three animals were shot under the impression that they were bucks. The antlers of one of the specimens were imperfectly grown and still "in the velvet" in autumn, but the other two had shed their velvet and were normal antlers to all appearance. All three of the animals belonged to the species known as the Rocky Mountain blacktail or mule deer, and were larger than ordinary does.

Science News-Letter, June 30, 1928

Report Size Of Fish

Ichthyology

Fishermen who yearn for an audience to listen to the size and weight of their catch will have an ideal time in Wisconsin this summer. A complete survey of game fish in the state is being made by the Wisconsin Geological and Natural History Survey in cooperation with the U. S. Bureau of Fisheries, and all sportsmen in the region have been called upon to help with the evidence.

For just this once the fishermen will be asked positively not to exaggerate the correct weight and length of the fish they capture. But the committee hastens to assure them that the records will not be made public, so no fish stories will be spoiled for social purposes.

The aim of the project is to make each lake produce its maximum amount of game fish best suited to that particular lake. The survey will require a collection of 50,000 samples of fish scales to be used in checking up on the ages of the Wisconsin fish population. The ages of fish can be determined by counting the rings on the scales.

Science News-Letter, June 30, 1928

Experimenters at Cornell University are trying to find out whether doses of sunshine are good medicine to prevent colds.

Twenty cans of trout which traveled by airplane from Michigan to Ohio last month hold the record for being the first fish to be transported by air.

European Roads Inferior

Engineering

European roads, which fifteen years ago were superior to the American automobile trails of those days, are now far inferior to the hard-surfaces available for touring here in America. Tore Franzen of Detroit told the Society of Automotive Engineers.

The main roads of the Old World, once the trade routes of the civilized world, have deteriorated as a result

Romans Welded Iron

Engineering

Roman artisans in England only two to three centuries after the time of Christ knew how to weld iron and how to join or "solder" two pieces of iron together with copper, the Institute of Metals was told at its meeting by Profs. J. Newton Friend and W. E. Thorneycroft of the Technical College, Birmingham. The specimen examined by them was a deep iron ferrule, like a modern napkin ring, that was unearthed during excavations of the Roman city of Uriconium located on the river Severn and destroyed about A. D. 380.

Lead pipe manufactured and laid in Rome's water system 1,800 years ago was pronounced to be in perfect condition by William A. Cowan, chemist of the National Lead Company, Brooklyn, N. Y., in a communication to the Institute. Analysis showed that the same lead was used by the Romans in England and Italy.

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of war and lack of proper maintenance. The old stone roads that in many cases date back to the Romans, are durable, but very rough, narrow, highly crowned and surfaced with cobblestones and slabs. Other roads are of dirt, rutted and rough, with only the most necessary repairs made by the peasants who live alongside them.

There are two kinds of European motorists, Mr. Franzen discovered in surveying the situation. The dashing sportsman drives his own car and insists upon speeding over poor roads. Most European car owners, however, employ chauffeurs and desire to travel in safety and comfort.

American automobiles are sometimes criticized because they shimmy and shake on European roads. Rough roads and the low tire pressures used cause the springs to deflect deeply and give the riders severe jolts. Thin oil plentifully applied is considered in Europe to be a universal cure for any slight spring or shock-absorbed squeaks. But the oil simply puts most shock-absorbers out of commission and makes the springs weak. Mr. Franzen recommended to the automotive engineers that special springs and shock-absorbers be designed for the cars exported to the bad roads area of Europe which includes most countries except England and Switzerland.

Science News-Letter, June 30, 1928