



EASTER SUNDAY DISTURBANCE

The magnetic storm of Easter Sunday, March 24, was blamed by scientists on this giant sunspot cluster. This photograph was taken at the Mount Wilson Observatory of the Carnegie Institution of Washington at 7 a.m. on that date. The earth is just about the size of the dark center in the nearly round nearby spot.

METALLURGY

New Alloy Strong as Steel And Noiseless as Rubber

Developed in Bureau of Mines Manganese Experiments,
It Opens New Possibilities Such as Noiseless Gears

AN ALLOY as strong as steel, but as noiseless and as free from "chatter" as rubber, is only one of a series of new metals being evolved in the manganese experiments of the U. S. Bureau of Mines, according to Dr. R. S. Dean, chief engineer of the metallurgical division of the Bureau.

In a demonstration before the Colorado Mining Association in Denver, Dr. Dean dropped a piece of brass and a piece of steel on the floor with a clang. Then he dropped a piece of the new alloy. There was a slight thump but no ring or clang whatever—much the same as if a piece of hard rubber had been dropped.

The new alloy is of manganese and copper properly heat-treated, Dr. Dean said.

"It dampens or absorbs vibrations like

rubber or good cardboard, which convert noise into heat," he indicated.

"The silent properties of rubber are sought after, but there are many places in industry where it cannot be used. Generally speaking, rubber substances are unusable in tension—rubber axles or drive shafts are hardly feasible.

"Here we have an alloy with the strength and modulus of elasticity of mild steel, that has the noise-absorbing properties of rubber. This opens up many new possibilities; chatterless spring suspensions, noiseless gears, a muffler for a whole host of bothersome industrial sounds. This alloy is being tried for those uses now."

The new manganese-copper alloys are made possible by the reduction of manganese by electrolysis, which permits metal 99.96 per cent. pure to be made,

as against 96 or 97 per cent. purity by older methods. The less pure manganese is used mostly for alloying with iron.

An alloy of the new purer manganese, with 2 per cent. copper and 1 per cent. of nickel, resembles copper in ductility and other qualities, but by heat treatment it can be given an electrical resistance 1,000 times that of copper.

Another manganese-copper-nickel alloy has a tremendous hardening range, from that of copper to that of die steel, Dr. Dean said. This hardening can be so controlled that the interior of a tool or casting can be as soft as copper while the surface is hardened like that of steel.

Still another property of some of the new manganese alloys is low heat conductivity. This opens vistas of pot-handles and holders made of metal but which stay as cool as wooden handles.

The new purer manganese can be added to aluminum in amounts up to 8 per cent., hardening the metal. Older, less pure manganese made aluminum brittle when more than one and one-half per cent. was added, Dr. Dean said.

Pure electrolytic manganese still has a relatively high cost, around 50 cents a pound, but quantity production will bring that cost down and render manganese a formidable ally of the non-ferrous metals in competing with steel and its alloys.

Manganese ore of suitable grade for use in the steel industry has been classed as a deficiency, strategic mineral by the government. The Bureau of Mines and the Geological Survey are engaged in finding domestic sources of high grade ore.

The electrolytic process, Dr. Dean said, while not an immediate solution of this problem, uses low grade ore that is plentiful in this country. When the experimental process is fully developed it would provide an emergency domestic source of manganese suitable for the steel industry.

Science News Letter, April 6, 1940

ANTHROPOLOGY

Story of "Baboon Boy" Confirmed by Evidence

EVIDENCE of the authenticity of the case of the "Baboon Boy," of South Africa, who was believed stolen from his native mother as an infant and nurtured by wild baboons, has been collected by the well known anthropologist, Dr. Raymond A. Dart, of the University of Witwatersrand, Johannesburg, South

Africa, and has just been made available to other scientists.

Although many cases of "wild children," little Mowglis reported brought up by wild beasts of the jungle, have gained prominence from time to time, this "appears to be the first case of a human child adopted and reared by infra-human primates," Dr. John P. Foley, Jr., of the George Washington University, said in reporting his correspondence with Dr. Dart to the scientific journal, *Science*. (March 22.)

Dr. Dart investigated the case by writing to the mental hospital where the child was said to have been taken when "trapped" about 1903 and to the police headquarters for information of his discovery. Although the mental hos-

pital was unable to find any records because it is not known under what name he was admitted there, the police were able to locate a Constable W. J. Coetzer, who had heard the story of the boy's discovery from ex-Lance Sergeant C. Holsen, now dead, who was a member of the patrol who found him.

The "Baboon Boy" is now a man of 49. On the farm of George W. Smith, he developed into a dependable worker "remarkably intelligent," learned to speak English, and was able to relate details of his past life among the baboons. However, he "took no account of time, or even of dawn or evening." He had apparently lived with the baboons from infancy until he was about 12 or 14 years old.

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Handicapped Children, and Tropical and Other Diseases.

Physical and Chemical Sciences, Dr. Lyman J. Briggs, director of the National Bureau of Standards, Chairman. Of common interest to all participants are researches in location and utilization of petroleum, transportation of fruits and meats, testing and purification of sugar, and determination of quality of textiles.

Statistics, Dr. Stuart A. Rice, chairman of the Central Statistical Board, Chairman. Trade statistics, industrial statistics, vital statistics, and development of a continuing professional medium for interchange of ideas and information are among the topics for this section.

History and Geography, Dr. Clarence H. Haring, professor of Latin American History and Economics at Harvard University, Chairman.

International Law, Public Law, and Jurisprudence, Dr. James Brown Scott, secretary, Carnegie Endowment for International Peace, Chairman.

Economics and Sociology, Dr. Harold G. Moulton, president of the Brookings Institution, Chairman.

Education, Dr. Nicholas Murray Butler, president of Columbia University, Chairman.

At a time when many of the major countries of the world are devoting all their energies to armed conflict and war activities, this meeting of American scientists and scholars is dedicated to promoting friendly relations, better understanding and close collaboration for the conquering of the common foes of all mankind.

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GENERAL SCIENCE

Scientists of All Americas To Meet in Washington

Eighth American Scientific Congress Will Celebrate Fiftieth Anniversary of Pan American Union

PLANES para la mobilización de todas las fuerzas científicas de las Américas para atacar, en concierto, al principal enemigo del hombre, la ignorancia, siguen tomando forma en Washington.

GRADUALMENTE vão tomando forma os planos que se preparam em Washington para a mobilização de todos os elementos científicos das nações americanas, para entrar em luta combinada contra o principal inimigo do homem—a ignorância.

PLANS for a mobilization of all the scientific power of the Americas in a concerted battle against man's chief foe, ignorance, are taking shape in Washington.

The Eighth American Scientific Congress will bring together in Washington on May 10 delegates and participants from all the American Republics, members of the Pan American Union, where they will take part in celebrating the fiftieth anniversary of the founding of the Union and participate in an exchange of knowledge in eleven scientific sections.

The sections of the Congress are: *Anthropological Sciences*, presided over by Dr. Herbert J. Spinden, curator of

American Indian Art and Primitive Cultures, Brooklyn Museum. The problems to be discussed in this section are mainly those of international interest and include those in the field of psychology.

Biological Sciences, with Dr. Edwin G. Conklin, professor emeritus of Princeton University, as chairman. Biology, physiology, botany, zoology and economic botany and zoology are included in this section.

Geological Sciences, under the chairmanship of Dr. T. Wayland Vaughan, president of the Geological Society of America. Geology of metal and mineral resources, including oil fields, and the volcanology of Central and South America will be among the important matters discussed in this section.

Agriculture and Conservation, Dr. Hugh H. Bennett, chief of the Soil Conservation Service, U. S. Department of Agriculture, Chairman. In this field, the Americas have much in common.

Public Health and Medicine, Dr. Thomas Parran, surgeon-general of the United States Public Health Service, Chairman. Seven subjects of a very practical nature have been agreed upon for discussion, including: Nutrition, Tuberculosis, Cancer, Chemotherapy, Heart Diseases, Rehabilitation of Physically

MEDICINE

Inflamed Pancreas Likely For Habitual Drunkards

THE AFTERMATH of a prolonged bout of heavy drinking is likely to be an inflammation of the pancreas which may result in death, Dr. Eugene Clark, assistant medical examiner, New York City, warned at the meeting of the American Association of Pathologists and Bacteriologists in Pittsburgh.

The disease is more likely to occur in habitual drunkards than in those who occasionally become intoxicated, Dr. Clark found. It bears "as striking a relationship to long continued heavy alcoholic indulgence as does cirrhosis of the liver," he said.

He reported details of the condition of the pancreas at death in 44 cases of acute and chronic alcoholism examined at autopsy in the laboratories of Bellevue