

ENGINEERING

American Manganese Deposits Available By New Method

A PRACTICAL way of the electrochemical extraction of the strategically important metal, manganese, from low-content domestic ores was reported to the Electrochemical Society in New York City by Drs. Colin G. Fink of Columbia University and Morris Kolodney of the City College of New York.

Except for domestic ore deposits that are so poor in manganese that extraction by conventional heat methods is impracticable, the United States is dependent upon foreign sources for this important ingredient in modern steels. The low-grade ores within the United States can be used by electrodepositing the manganese from sulfate solutions leached from them. (See also SNL, Oct. 8, 1938)

The anodes used in snatching the manganese from the solution have not been satisfactory when made of lead and iron, but Drs. Fink and Kolodney have developed an alloy anode of lead, tin and cobalt that decreases the cost of extraction and works satisfactorily.

Novel Storage Battery

A NOVEL type of storage battery, already widely used in Europe on trucks and buses, was urged upon American industry by Dr. Anna P. Haul, New York consulting chemist.

It is a cadmium-nickel battery, said to be displacing the conventional lead batteries now widely used. It is similar but superior to the nickel-iron battery invented by Edison, Dr. Haul declared. Following its invention in 1899 by a Swede, E. W. Jungner, the cadmium-nickel battery has been made in Europe since the beginning of the century but has been used industrially to a large extent only in the last 8 to 10 years.

Cadmium-nickel batteries are much lighter than lead batteries for the same output, they stand extreme cold more satisfactorily, hold their charge when left idle for long periods and use twice as much of their active material as lead batteries do during their discharge.

Science News Letter, October 14, 1939

METEOROLOGY

New Weather Office Tries Combined Forecasts

A NEW departure in weather forecasting is being tried at the new district office of the U. S. Weather Bureau, located at the Kansas City airport. If it works out satisfactorily it may be extended to other Weather Bureau stations throughout the country.

The new procedure consists of making aviation and general weather fore-

RADIO

Dr. F. B. Jewett, president of Bell Telephone Laboratories, will be the guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Monday, October 23, 4:30 p.m., EST, 3:30 CST, 2:30 MST, 1:30 PST. Listen in on your local station. Listen in each Monday.

casts at the same station, by the same staff. Hitherto, aviation weather forecasts have been made by special staffs working at airports, while the general forecasts were made independently at the old downtown Weather Bureau offices.

The new system, it is hoped, will save expense through elimination of duplicate equipment and through a better scheduling of the time of the personnel. A possible drawback, which must be avoided if the new system is to function properly, might be simultaneous demands for both aviation and general forecasts.

The Kansas City set-up will also include a daily "breakfast-time" radio broadcast, already popular in Washington, D. C., and Baltimore. If it works out as well as it did in those two cities, the "breakfast-time" broadcast can be expected to be extended to many other cities in the near future.

Science News Letter, October 14, 1939

The goat-moth caterpillar gets its name, not from its appearance, but from its goat-like odor.

CLASSIFICATION OF ANIMALS (KINGDOM ANIMALIA)

SUBKINGDOMS	PHYLA	SUBPHYLA	CLASSES	SUBCLASSES	ORDERS
PROTOZOA - Cells, ciliated body			Pseudopodia - SYRCONIDA	With pseudopodia - RHIZOPODA	LOBOSA - Amoeba, Arcella, Polyommata
			Flagella - MASTIGOPHORA	With flagella - ACTINOPODA	FOAMINIFERA - Forams, Globigerina
			Cilia - INFUSORIA	Animal-like - ZOOASTIGINA	HYPERASTIGINA - Ichthyophthirius, Lophomonas
			Cilia in adult state - CILATA	Plant-like - PHYTOASTIGINA	PHYTOASTIGINA - Dinobryon, Volvox
METAZOA - Many celled body			Lobe - SOLENOPODA		PHLEBOPODA - Phlebotomus, Simulium
	PLATYHELMINTHES - Flat, unsegmented worms		Turbellaria - TURBELLARIA		TRICHOLOPHORA - Triclad, Planorbis
	NEMATHELMINTHES - Round, unsegmented worms		Trematoda - TREMATODA		MONOCLEIDA - Monocleis, Fasciola
			Cestoda - CESTODA		DIPOLOPHORA - Diplophorus, Loricifer
	ANNELIDA - Ventral nervous system, segmented worms		Chaetopoda - CHAETOPODA		ISOPODA - Isopoda, Tardigrada
			Archannelida - ARCHANNELIDA		TRICHOLOPHORA - Triclad, Planorbis
			Polychaeta - POLYCHAETA		DIPOLOPHORA - Diplophorus, Loricifer
			Head - CEPHALOPODA		ISOPODA - Isopoda, Tardigrada
			Two lobes and trunk - CEPHALOPODA		TRICHOLOPHORA - Triclad, Planorbis
			Unsegmented - CEPHALOPODA		DIPOLOPHORA - Diplophorus, Loricifer

A New Chart on Classification of Animals for Teachers and Students

MB1 Wall size chart, 64 x 86 inches. Handmounted on cloth with wood rollers at top and bottom. . . . \$7.50

MB1r Student size chart, 17 x 22 inches. This size may be folded and conveniently carried in brief case or pocket. Per single copy, postpaid .35

Published and Sold by
Denoyer-Geppert Company
 5235 Ravenswood Avenue
 Chicago, Illinois