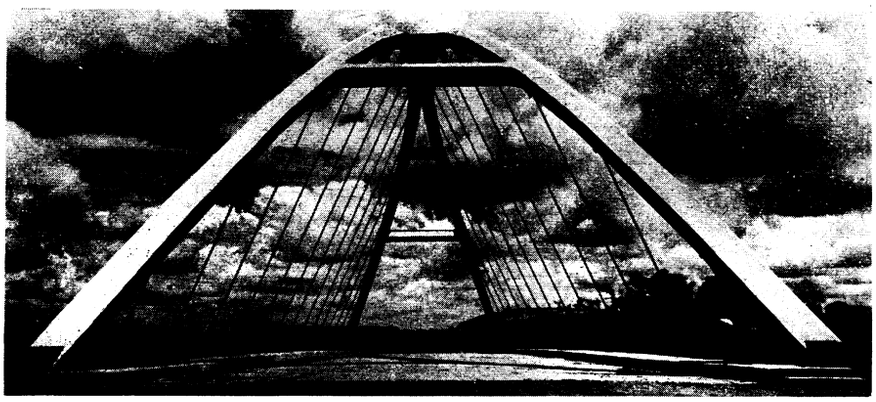

STEEL BRIDGE SPAN—Freedom of form previously available only with concrete has been achieved with steel in the bridge spanning the Rio Blanco River near Vera-Cruz, Mexico, shown here. The structure was designed by Dr. Thomas C. Kavanagh of New York University. Camilo Piccone of Mexico was the engineer of this span, which has slender arch ribs free of cumbersome bracing.

GENERAL SCIENCE

Search Science Talent

➤ A NATIONWIDE search is now under way to find the 40 most promising science-minded high school seniors in the country.

The Thirteenth Annual Science Talent Search was launched with an invitation to seniors in 27,000 public, private and parochial schools throughout the land. They will have the opportunity to compete for $11,000 in Westinghouse Science Scholarships and a five-day visit to Washington. Valuable honorable mention status will go to 260 others. The results of the search will reveal who among this year's seniors will be the nation's leading scientists of the future, and will stimulate others to undertake scientific training.

The Science Talent Search is conducted by SCIENCE SERVICE and supported by the Westinghouse Educational Foundation. Watson Davis, director of SCIENCE SERVICE, in announcing this year's Search, called attention to the growing shortage of scientists and engineers, a shortage which hampers the nation's industrial and defense programs.

"The National Science Talent Search has become the leading method of locating the scientific talent in our secondary schools," Mr. Davis said. "It spots those who deserve special attention by the colleges of the nation. It provides an incentive to youth in high school to study science and undertake their own experiments and projects. It cooperates with teachers of science in inspiring their brightest pupils. Our scientific and technological civilization demands an increasing number of scientists and engineers and the Science Talent Search is a major effort in increasing the quality and quantity of the supply."

Principals and science teachers in secondary schools throughout the country are now receiving instructions on "How You Can Search for Science Talent." They will learn how to recognize science talent among their students and encourage those boys and girls to enter the Thirteenth Annual Science Talent Search.

For complete details of the national and state Science Talent Searches write to Science Clubs of America, 1719 N St., N.W., Washington 6, D. C.

Science News Letter, October 3, 1953

CHEMISTRY

New Way to Separate Rare Earth Elements

➤ NEW PRACTICAL ways of separating rare earth elements from the minerals in which they occur were reported to the American Institute of Chemical Engineers meeting by Drs. F. H. Spedding and J. E. Powell of Iowa State College, Ames, Iowa.

Rare earths are becoming industrially important, especially in atomic engineering.

The method involves ion exchange or replacing one element with another in order to get the desired element in a more pure or separated form.

A pilot plant showed that out of a crude rare earth concentrate from the mineral gadolinite, the rare earths erbium, ytterbium, dysprosium, yttrium, thulium, and holmium were obtained 99.9% pure. The cost of the chemicals and water used in the process is low despite the large volumes required.

In another process reported by Dr. Spedding with J. Bochinski and M. Smutz, rare earths were separated from each other by extracting solution of their nitrates in water with undiluted tributyl phosphate.

Science News Letter, October 3, 1953

ANTHROPOLOGY

Fossils Show Indians In Carlsbad Caverns

➤ A FOSSIL record of the Indians, plants and animals that once lived in or near the entrance to Carlsbad Caverns, New Mexico, has lain beneath the feet of the many visitors to this geologic wonder.

Donald M. Black reports in *Science* (Sept. 11) the discovery of a deposit of sediment that is expected to tell what men lived there and when, probably thousands of years ago. Excavations are planned.

From fragments of pottery and sandals, wall paintings, and nearby mescal roasting pits, it has been known that the entrance to the caverns had been long used by the desert Indians as a naturally air-conditioned shelter. Warm air comes out of the cave in winter. Forced evaporation of the moist cavern breezes meeting with the hot, dry desert air makes the cave cool in summer.

Science News Letter, October 3, 1953

ZOOLOGY

Mirror Image Organs Discovered in a Cat

➤ DISCOVERY OF a cat with mirror image internal organs was announced by Dr. Thomas D. Bair of Utica College of Syracuse University in *Science* (Sept. 18).

Complete reversal of all organs is so rare that Dr. Bair has only seen it this once in about six years' experience in dissecting cats in biology classes, and has seen only one other such case reported.

The kidneys seemed to be the only organs in a normal position in the Utica mirror image cat.

Science News Letter, October 3, 1953

METALLURGY

Climate, Not Iron, Keeps Pillar Rustless

➤ IT IS the climate and not the kind of iron that has kept the famous iron pillar of Delhi, India, virtually unrusted since it was erected about 1,500 years ago in the fifth century, A.D.

J. C. Hudson of the British Iron and Steel Research Association reports in *Nature* (Sept. 12) that both steel and zinc specimens exposed near the 23-foot, six-ton pillar showed very little corrosion in a year.

The mildness of the climate instead of any intrinsic superiority of the iron itself has protected the pillar against any serious rusting.

Little or no rusting occurs unless the humidity exceeds 70% and this critical value is reached in Delhi only a short time during the whole year. Sulfur pollution that controls corrosion rate when humidity is high is very low near the pillar.

Science News Letter, October 3, 1953