

## OLIGOCENE FOSSILS FOUND IN MONTANA

### American Museum Men Get Choice Specimens.

New York.—Dr. Charles C. Mook and Coleman S. Williams of the American Museum of Natural History have just returned to New York with many choice fossil specimens gathered in a three months' investigating tour through western Montana and Idaho. Their particular object was to search for fossils of the Tertiary age and they were very successful.

"Our first camp," said Doctor Mook, "was near Pipestone Springs, where we collected quite a variety of the smaller mammals of the Oligocene age. Included in this list, are the Meschippus, a small three-toed horse; various artiodactyls, the primitive ancestors of the modern sheep and cattle, and numerous small rodents and insectivores. We also found some fragmentary remains of the giants of those days; the feet-footed hyracodon, a cursorial rhinoceros, and the enormous Titanotherium, twice as large as an elephant, with a brain less than three inches in length.

Important Work Done.

The next stop was at Salmon, Idaho, where few fossils were found, though important work was done in determining the age of the rocks in that vicinity. In going to Salmon from Butte we took the Lemhi Pass, an old stagecoach road formerly used to carry in gold-mining machinery and supplies, but long since abandoned. In the last two miles to the summit the road ascends 4,000 feet and was pronounced impassable, but we made it without incident in spite of a load of nearly 3,000 pounds.

"In the Madison River valley, near Three Forks, Mont., we secured a representative group of the Miocene mammals. Among these were camels and rhinoceroses, of various kinds; merycolous, a primitive antelope; more three-toed horses, somewhat larger than their Oligocene ancestors, and some of the smaller carnivores and marsupials. In this section we also got some good fossil fish and turtles of considerable size.

"Our last camp was near Fort Logan, in former days a famous outpost against the Indians. There we collected Miocene fossils, and dug out some of the best specimens of our collection. For the most part the animals were the same as those in the Madison valley, though much better preserved. In addition, we found some complete skulls and jaws of Oreodon, a later though still primitive ancestor of the sheep.

Use Touring Car.

"Mr. Williams then drove the car down through the Yellowstone National park, across Wyoming and to Agate, Neb., to have it stored with the Thomson expedition of the American museum. The trip from Cody to Casper, Wyo., was about 250 miles, and was accomplished in six hours."

On their fossil hunting trip, the museum investigators drove a new touring car, which was taken at the Detroit factory.

"The performance of the car was excellent throughout," said Mr. Williams. "In all our travels over untracked wilderness, we did not have the slightest mechanical trouble. Two tanks having a capacity of 30 gallons of gasoline were fitted, but apart from these and magneto ignition, the car was mechanically the same as any standard car.

"We carried tools necessary for excavation, block and tackle, tents, bedding, cots, cooking utensils, provisions for two months in the field, as well as several bags of flour, and quantities of plaster, cheesecloth and burlap for preserving the fossils."

### Home Brew of Abyssinia

A great quantity of beeswax is exported from Abyssinia, but the honey from which the wax is obtained is entirely consumed at home. They make a drink of it called "tel." The Abyssinian beehive is a long cylindrical basket which is suspended from the trees. A little honey is placed in it in the first place and soon the bees take possession of it and proceed to fill the basket. The honey is squeezed from the comb and allowed to ferment in goat skin containers. It is a home brew, but it has all the necessary "kick."

### Caged Birds

"May I warn the owners of caged birds against the dangers and unintentional cruelty, of exposing their pets to the sun's rays during the hot weather?" asks Bird Lover, a correspondent of the London Post. "Many caged birds suffer from heart trouble, a disease the presence of which may be detected by a discoloration of the nostrils near the base of the beak. In such cases the hot sun is fatal. On sunny days birds should be kept in the shade between the hours of 9 a. m. and 7 p. m."

## Preacher, 93, Claims He's Oldest Telegrapher

Little Rock, Ark.—The distinction of being the oldest living telegraph operator in the world is claimed by Rev. Sam L. Titus of Little Rock, Ark. Mr. Titus learned telegraphy when he was fourteen years old, three years after the first message was sent from Washington to Baltimore, May 24, 1844. He is now ninety-three years of age.

Mr. Titus was deeply interested in the story of how Dr. Samuel F. B. Morse built his first telegraph line from Washington to Baltimore as he worked on his father's farm in Perryburg, N. Y.

He wrote to Doctor Morse to send him a copy of the Morse code and the boy learned the alphabet.

Then he desired to own an instrument.

He worked all summer, saved \$28 and bought the instrument. For many months he practiced on his outfit.

A short time later the first telegraph line in New York state was erected across one corner of his father's farm.

A few years later the railroad followed the telegraph and he was given a chance to earn a living as a telegraph operator for the railroad company.

When the Civil war broke out Mr. Titus enlisted in the federal army and was assigned to the telegraphic service, in which he served through the war.

### Locates the Pain

Vagrant aches and pains which often afflict the stomach and are hard to identify may now be accurately located and classified by an instrument resembling a miniature seismograph, the device with which earthquake tremors are recorded. The pain finder, devised by Dr. W. C. Alvarez of the University of California, is said to register the course of such ills in almost any part of the abdomen and to clearly reveal every step of the digestive processes. By the recorder, the passage of food through the digestive tract can be closely followed, and the exact spot and instant of the setting up of any trouble definitely learned in a few minutes. The instrument, called the multiple-electro-entograph, is said to obtain its data by means of a pendulum—swung in a vacuum tube and marks its records with a needle.—Popular Mechanics.

### Braille Bibles Homemade

In three schools for the blind maintained by Near East relief, there are complete Braille Bibles, although each of the schools has a more or less complete New Testament in the Braille of the native tongue. Most of the Braille books used in these schools have been punched out by hand by the students and teachers, Greek and Arabic being the languages used. A Braille version of parts of the Book of John made in a blind school at Athens was recently on exhibition at the Near East relief headquarters in Greece. Owing to lack of suitable material for the purpose the students had made the book out of pages secured by carefully cutting the front and back cardboard from boxes of American breakfast food. This cardboard made an ideal material for punching out the Braille letters, and similar books covering a wide range of subjects are constantly used in the schools in Athens.

### Narrow Escape

Friends of Childe Hassam like to tell of the time when he just barely escaped being taken for an artist. It seems that Hassam, in need of a shave, went into a barber shop in a little town in Maine not far from a famous artist colony.

"Hair-cut?" asked the enterprising barber.

"Yes, if you think it needs it," said Hassam; "I guess you better trim it off a little."

"Sure thing," said the barber. "You know, you don't want to be taken for one of them artist fellows."

### How Painted "Light" Helps

"Painting" buildings with light is an inexpensive and effective method invented by engineers in Fresno, Cal., says Popular Science Monthly. The walls are made of cream-tinted terra-cotta and pressed brick, and flood-lighted with colors such as soft magenta, ruby or emerald.

### How Long Fish Live

A Swiss naturalist, Konrad Yeener, has recorded the history of a pike two hundred and sixty-seven years old. It had spent its entire existence as a prisoner in a fish pond. Carp are known to live for many years, growing two or three inches a year.

### Boys Outnumber Girls

Main, Ore.—Boys outnumber the girls in the public school here, and the last graduating class was composed entirely of boys. Every boy in the school but one has taken the agricultural course offered by the school.

## HOW

STATIC ELECTRICITY CAN SET MOTOR CAR ON FIRE.—Do you ever wonder why it is that gasoline trucks have a chain hanging down to the ground when they travel along and when they stop? This is done, says the accident prevention department of the Chicago Motor club, to get rid of static electricity, which otherwise might set fire to the tank.

Static electricity in connection with gasoline is a subject which should be more familiar to motorists, as an element of danger is involved. In proof of this the accident prevention department cites the case of a naval surgeon whose automobile was destroyed and its owner severely burned through the firing of gasoline by a spark produced by frictional electricity. The surgeon had walked some distance to his garage in his overcoat and rubber boots. The friction of the flopping coat against the boots generated the electricity, while the rubber insulated him from the ground and allowed his body to store it. The spark therefore went through the grounded automobile, lighting the gasoline.

Another case is cited of a chauffeur who hung an ordinary five-gallon can on the iron hook of the gas pump. The gasoline had been pumped when a spark jumped from the can to the pump and fired the gasoline. They put out the fire, and as the car was waiting to be filled they repeated the process and the gasoline caught fire again.

## How Sounds on Steel Can Now Be Recorded

A man sitting in an office in Berlin, Cape Town, or Peking may soon be able to dictate a letter that will be heard and taken down instantly by a shorthand writer in an office in London.

This is one of the startling results of an invention perfected in a Berlin laboratory. The invention, which has taken 18 years to perfect, consists of recording and storing sounds on steel. The sounds are recorded on a steel wire by electro-magnetic means, so that the wire bears no surface markings of any kind and can at any time be "emptied" of its sound contents in readiness to receive others.

The wire can be connected with any telegraphic cable, which conveys the sounds farther. It is predicted that within a short time every newspaper correspondent in the world will be able to dictate his articles direct to his office.

To empty the wire is a very simple matter: one simply reverses the process and re-transforms the magnetic waves into ordinary sound-waves.

Instead of being "emptied" for further use, says a writer in Science, the charged wire may be disconnected and stored up, when it will, on being re-connected, repeat its sound contents as often as desired. The life of such a sound wire, unlike that of a phonographic plate, is limitless.

## How Winds Are Caused

Winds are produced by a disturbance of the equilibrium in some part of the atmosphere; a disturbance always resulting from a difference in temperature between adjacent sections. Thus if the temperature of a certain extent of ground becomes higher, the air in contact with it becomes heated, it expands and goes toward the colder or higher regions of the atmosphere; whence it flows, producing winds which blow from hot to cold countries. But at the same time the equilibrium is destroyed at the surface of the earth, for the pressure on the colder adjacent parts is greater than that which has been heated, and hence a current will be produced with a velocity dependent on the difference between these pressures; thus two distinct winds will be produced—an upper one setting outward from the heated region, and a lower one setting inward toward it.

## How Old Egyptians Lived

In the tomb of Antefoker, vizier of Sesostris I, one of the great pharaohs of ancient Egypt, found at Thebes in 1916-17, there are two drawings showing how the Egyptians between the years 1980 and 1935 B. C. cooked and how they warmed their rooms. One picture shows butchers slaughtering a bull, carving it into parts like those displayed in a modern butcher's shop, and the manner in which the meat was cooked. The meat was held in a frame by spikes and hung in front of a charcoal grate, to which a bellows was attached. This cooking appliance resembled a modern roaster used for the cooking of game and poultry.



## WATER SPORTS SAFER FOR RED CROSS WORK

### Expert Life-Savers and Many Thousand Swimmers Reduce Annual Water Toll.

Water sports in the United States have never been so safe as they are today, a survey of the work done by Life-Saving experts of the American Red Cross in the past year indicates. Thousands of adults and young people were taught to swim proficiently by these experts during this period. In addition, 5,681 men, 4,187 women, and 13,024 juniors successfully passed the rigid tests of the Life Saving Service of the Red Cross. The total thus trained during the year—22,892—is 5,041 more than last year's results. The total membership of the Life Saving Corps of the Red Cross on June 30 was 72,810 persons.

Meeting the demand for qualified instructors and counselors in these camps, are the college men and women of the country, many devoting whole or part of their annual vacation periods to this field. Meeting the need of standardized instruction in Life-Saving, First-Aid, and kindred subjects, the American Red Cross conducted nine First-Aid and Life-Saving Camp Institutes this year with a total attendance of more than 600, in Maine, Massachusetts, New York, North Carolina, Indiana, Wisconsin, Oregon, and California. Representatives of Red Cross Chapters, summer camps, life guards at municipal pools and beaches, directors of physical education in schools, and others of this calibre made up the student body.

A number of city or regional institutions were conducted also during the winter at indoor pools to develop local experts. The aquatic school conducted by the New York Chapter was especially successful. It is stated, inspired by this system, many camps, pools, bathing beaches, etc., have adopted in whole or in part, the Red Cross Life Saving and water-safety program. In the New England states alone, more than 180 camps employ counselors trained in these methods. A partial survey indicates more than 80 cities using the Red Cross senior test as a minimum requirement for their municipal life guards. Educational institutions have turned to it with enthusiasm.

This widespread instruction besides creating unprecedented numbers of expert life-savers, is developing a vast body of Americans who are at home in the water. All contributes to safety the year-round, for swimming is a recognized all-year sport today, records show.

The danger from water accidents is ever-present however where proper safeguards are not taken and to broaden this valuable Red Cross Service is one of the reasons why increased membership in the Red Cross

is urged. The Annual Roll Call, during which the opportunity to assist all Red Cross work in many lines of endeavor is extended, will be held from Armistice Day to Thanksgiving, November 11-24.

### Large Volunteer Work of Red Cross

Volunteers under the Red Cross all over the United States are doing constantly for others, among their products being more than 90 per cent of the Braille reading matter for the blind, and a vast production of clothing and surgical dressings.

### Soldier Has Grievance

An amusing quarrel between two Venezuelan officers, General Hidalgo and Colonel Galarriz, a former secretary of state, is shortly to have its sequel in one of the Paris police courts. Some time ago the general thought fit to arrest his subordinate because he refused to conform to the Venezuelan army regulations in regard to the length of his hair. The colonel's complaint is that General Hidalgo not only caused him to be put in irons, but also ordered his hair, eyebrows and mustache to be shaved off, thereby inflicting great moral pain upon him. After his release the colonel challenged the general to a duel, but his telegram received no reply.

A few days ago the colonel heard that his enemy was due in Paris, and he went to the Gare Saint Lazare to greet him. As the general left the station his victim gave him a thrashing with a cane, and both parties quickly found themselves in the hands of the police. All attempts to bring about a reconciliation proved vain. "I will never forgive you for putting me in irons and shaving off my hair and eyebrows," insisted the colonel.

### New Scientific Wonder

A woman on an Atlantic liner called up her sister on another ship 150 miles away, recently, and the two carried on a conversation lasting eight minutes. This was the first trial of a new marvel—a wireless telephone, invented in Germany, that can be used either between two ships or between a ship and land.

Previously, messages could be spoken only one way over wireless telephones. Now, it is said, messages may be spoken both ways simultaneously and interchangeably.—Popular Science Monthly.

### No Time for Poets

The late Miss Amy Lowell complained one afternoon at a tea about the modern public's indifference to poetry.

"Our indifference," she said, "is only equaled by our ignorance. In an address to working girls I once stopped and asked:

"Can anyone here tell me what hexameters are?"

"The working girls giggled, and one of them said:

"Why, of course, ma'am, everybody know that hexameters are cabs what you hire by the mile."—Pittsburgh Chronicle-Telegraph.

## WHY

### People Attach Value to "Bits of Stone"

What is the most valuable jewel? What effect has fashion on the price and cutting of gems? What stones need the most care? How should people take care of their jewels and will water harm them?

How may a pearl be restored to its original luster and shape?

These are questions often asked of experts, writes R. Clifford Black in an article in Popular Science Monthly in which he tells of a number of facts about jewels astonishing to the layman.

Just what causes people to attach such value to gems is one of the mysteries of human nature. Money has changed during the centuries, but the value of jewels has remained fairly constant. In times of uncertainty fortunes sometimes are saved by converting money into jewels.

Nine persons in ten, if asked to name the most valuable jewel, would say "diamond." The fact is, though, that in a table ranking gems in the order of their value, carat for carat, the diamond has fourth place. Both emeralds and rubies are much more valuable, while the pearl, because of the difficulty in matching, is far above all others.

Increased demands for precious stones and changes in the mode of dress influence both the price and cut of gems. At present the style is to cut in the square or emerald shape. Twenty-five years ago, when curves were fashionable, round jewels were most popular.

Pearls need far more care than any other gem, for they are an animal product and easily destroyed. The opal also requires great care. Made of silica and water, it is very fragile. It was probably because of this that the superstition of bad luck is associated with it.

Water as a rule does not injure precious stones. Diamonds, rubies and sapphires can pass through fire without injury. It is comparatively easy, though, to destroy both diamonds and emeralds. They will shatter to bits if struck sharply. Face powder is bad for pearls. It clogs up the pores of the pearl's skin, just as it does those of the human skin. One should never wear pearls when sleeping, either. At night the largest percentage of acid is thrown off the body and this dissolves the pearls.

Pearls are restored to their former luster and shape by a process known as peeling. A pearl is made in layers, like an onion, and these outer layers can be removed until the pearl has become round again. The peeling process is a most delicate task. It is done with the fingernails and a sharp knife, and only a few men in the world know how to do it.

### The Notorious Line

Hale Holden, the railroad magnate, told a railroad story at a banquet in New York.

"Once upon a time," he said, "there was a railroad line about 12 miles long that was notorious for its discomfort, bumps and dirt.

"A train on this line pulled into the terminus one morning, late as usual, and a man said, as he rose and brushed off the coal and dust and soot:

"Well, thank goodness, the worst part of my journey is over."

"Goin' far?" said the conductor.

"Madagascar," said the man.

### Why the Sea Is Blue

Holiday-makers are sometimes disappointed to find that the sea is not colored that beautiful azure blue which we love. A glass of sea water is perfectly transparent and colorless, yet the ocean is often colored any shade from yellow to purple.

It is the salt in the sea water which causes the blue color, for all the innumerable small particles of salt in the water filter the sun's rays and reflect the blue light. Seas which contain a large proportion of salt are colored the deepest blue. The Mediterranean, for example, which is rich in salt, is perhaps the deepest blue known. And the Pacific ocean is dark enough to be called indigo.

### Why Moon Affects Hair

"Has the moon any effect upon the growth of human hair?" asks a correspondent. A well-known astrologer declares that it has. He states that if the hair is cut when there is a new moon it grows twice as quickly as if cut when the moon is a dying one. Although this authority has a luxurious growth of hair, he has it cut only four or five times a year, always when there is a dying moon.

### Why Bright Easter Colors

The use of bright colors at Easter is symbolic of the rays of the aurora and the dawning hues of the Easter sun. Purple is largely used because from a very early period it was one of the most highly prized of all colors.

## Wreaths on Statues Barred in London

One of the little-known forbidden things in London is to lay a wreath before a statue. Five Americans of Scottish descent brought a wreath of bay leaves to lay before the statue of Robert Burns in the Embankment gardens, the occasion being the 129th anniversary of his death and they being Americans who keep note of such things.

A park ranger caught them at it and soon stopped this rash attempt to add to the decoration of the Embankment gardens. He ascertained at once (as he suspected) that they had no official and properly sealed permission to lay a wreath on Robert Burns' memorial.

The Americans asked him what he would have done if they had laid their wreath before Burns without being seen. The ranger replied honestly enough that in that case he would have taken it off when he did see it. So the Americans took their wreath away sorrowfully and laid it before the bust of Lincoln at the Savoy hotel. But why should it be necessary to get permission to do so innocent and pleasing a thing as to lay a wreath before a statue?

## Danger to the Eyes in Major Industries

That there is hardly an industrial occupation in America which does not add each year to the steadily increasing number of the blind and near blind is the announcement made by the national committee for the prevention of blindness, following an extensive study of eye hazards in industry. Referring to the records of a single insurance company which in three and a half years settled claims involving 1,049 cases of permanent disability resulting from eye injuries, the committee found that 82 eyes were lost in the presumably safe occupations of merchandising, farming and textile manufacture.

"This is further proof," the committee reports, "that serious eye accidents are likely to occur wherever men, women and children are employed. There is no such thing as a really nonhazardous occupation."

The report shows that the greatest number of serious eye injuries for the entire country occur in the metal manufacturing industries. But in Pennsylvania the coal mining industry ranks first as a cause of industrial blindness, and in Wisconsin hand tools are the greatest single cause of injuries to eyesight. One large shipbuilding company had more than 4,800 eye cases treated in its dispensary in one year. The committee recommends the keeping of detailed and accurate records of the nature, causes and costs of eye injuries as the first step in any campaign for the prevention of eye accidents in an industrial plant or in an entire industry.

### Nothing but Justice

In this God's world, with its wild whirling eddies and mad-foam oceans, where men and nations perish as if without law and judgment for an unjust thing sternly delayed, dost thou think therefore that there is no justice? It is what the fool had said in his heart. It is what the wise in all times were wise because they desired and knew forever not to be. I tell thee again there is nothing else but justice; one strong thing I find here below—the just thing, the true thing. \* \* \* If the thing is unjust, thou hast not succeeded, though bonfires blazed from north to south, and bells rang, and editors wrote leading articles, and the just thing lay trampled out of sight to all mortal eyes—an abolished and annihilated thing.—Thomas Carlyle.

### Stairs' Death Toll

In the Manhattan section of New York there have been more than 100 deaths in a single year due to falls on stairs. The total number of such fatalities in the United States is estimated to be about 14,800 each year. The majority of these falls are due either to slipping or tripping, the former being far more prevalent. About 85 per cent of accidents on stairs occur during December, January and February. This is due to snow, ice and poor lighting.

### Less Gain in Population

Although the population of the United States is now at the high-water mark of 114,311,000 people, the advance over last year was less than the average advance for the last five years, according to recent estimates of the national bureau of economic research. The once rapid advance, it is believed, now has slowed up definitely.—Popular Science Monthly.

### Casket at \$500 an Inch

A small jewel casket bequeathed to the Almira Countess of Carnarvon by Alfred de Rothschild recently sold at auction for \$500 an inch. It brought more than \$3,000.