



### FINDS U. S. PLATINUM

*Edwin B. Eckel, government geologist, inspecting a polished sample of the platinum-palladium-silver-copper ore which he discovered in Colorado.*

#### GEOLOGY

## Promising Platinum Find On Colorado Public Land

DISCOVERY of "promising" amounts of platinum in the La Plata Mountains of southwestern Colorado on unclaimed public land open for location is announced by the U. S. Geological Survey. It is the first promising platinum find in the continental United States.

Found by a chemical analysis of ores collected by Edwin B. Eckel, who has been doing field work in the La Plata region for several years, the platinum metals content of some samples is as high as .54 ounces of platinum and palladium per ton. Platinum currently sells at \$33 an ounce.

Geological Survey experts declined to advise on possible production and methods of working this deposit. From other sources it was learned, however, that if the ore body found is large enough, the platinum can best be mined on a by-product basis—the ore body worked for copper and the platinum metals recovered during the electrolytic refining processes. This method of recovery has already proved successful in Canada.

A possible rush of prospectors to the district, not far from the silver mines of Durango, is foreseen. The new finds warrant at least "thorough examination," the Geological Survey declares.

Occurring two miles above sea level on Copper Hill, between Bedrock and Boren Creeks, near the old town of La

Plata and 21 miles northwest of Durango, the platinum-bearing veins have already produced 4,500 ounces of silver and 225,000 pounds of copper. Most of this production occurred between 1911 and 1917, when a great "glory hole" and a 600-foot tunnel were excavated.

Buried by soil and the debris from an ancient glacier, much of the ore body is hidden, and only a fraction of it, known to be 150 feet in diameter and 50 feet deep, is exposed. Further exploration by diamond drilling will show the extent of the platinum-bearing rock.

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#### MEDICINE—PUBLIC HEALTH

# Marriage of Feebleminded Worse Than Child Marriages

## A.M.A. Takes Stand on Spinach, Frowns on Rental of Radium; Overdose of Childbirth Drug Warned Against

IMAGINE a little girl of six years, who did not know the meaning of Easter or the Fourth of July, being married and having a baby, in fact having a third baby, the other two having died.

Such a case, in which the mother's mental age was six years although she was a grown woman, was described by Drs. Lloyd H. Ziegler of Wauwatosa, Wis., and Charles P. Sheldon of Boston, at the meeting of the American Medical Association in San Francisco.

The occasional marriages of 10- and 12-year-old girls are widely publicized and arouse enormous public comment, these doctors pointed out, but marriages such as they described of feebleminded adults are far more numerous and far more hazardous to society.

Nearly one-fourth of 50 unselected married patients seen in one large public hospital during four months were feebleminded, the doctors found on further study. Comparison of the indigent and self-supporting group showed that in the indigent group more than 94 babies died for every 1,000 alive, while in the self-supporting group less than half this number, about 40, died out of every 1,000 live births. The interval between births was about a year among the indigents and nearly two years among the self-supporting.

### Three Measures

A combination of three measures were recommended by Drs. Ziegler and Sheldon to solve this problem of marriage and reproduction among the feeble-minded. These measures are sterilization, which although slow would help certain individuals "defend themselves from responsibilities they are ill-fitted to carry"; segregation with vo-

catational training; and compulsory registration of persons with intelligence quotients of 70 or less. This registration information should be available to clerks and clergymen responsible for marriage licenses and to courts dealing with criminal offenders.

"If the costs of relief, dependency, delinquency and disease attributable to the feebleminded could be transferred to the ledger on the side of wise segregation and training, not only would there likely be a definite and immediate pecuniary saving, but there would also be future dividends of humanitarianism and prevention," they said.

### Metrazol for Depression

Mental sickness characterized by "depressions," a serious form of mental ailment far worse than the attack of "the blues" that it sounds like, may be helped by metrazol, the drug which, like insulin, is helping shock other mentally sick patients back to sanity.

All but one out of 21 such depressed patients were helped by metrazol injections, Drs. Richard H. Young and G. Alexander Young of Omaha reported. These patients only had to stay in the hospital 21 days, much less than usual for mental sickness, and showed improvement after the first or second treatment. The average number of convulsion-inducing metrazol treatments was seven. Not enough time has elapsed, the doctors said, to be sure that the improvement in the patients will be permanent. In spite of these favorable results the doctors believe metrazol treatment should only be used as an addition to other forms of treatment.

These doctors, like many others throughout the (*Turn to Page 398*)

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country, have also used both metrazol and insulin, alone and together, for patients suffering from the widespread mental disease, schizophrenia.

A tendency toward relapse from the improvement following insulin treatment for schizophrenia, makes these doctors feel that this now widely used treatment "fails to offer any special outlook for the future."

They emphasized that in spite of the striking results with insulin and metrazol, treatment of mental disease must continue along broad lines in which the patient's mental functioning and his past, present and future life situations are taken into consideration.

### Takes Stand on Spinach

Spinach is good for you, the American Medical Association announced.

Recent scientific studies having tended to put spinach at least on the road to the doghouse if not actually in it, with consequent confusion in many an American home, the association's council on foods looked into the matter. They reported that:

"Spinach is a wholesome and valuable food, a rich source of vitamin A and also contributes vitamin C, iron and roughage to the diet. The evidence shows, however, that the iron in spinach is not wholly available nor is it a good source for infants in amounts they can digest. The calcium is not utilized because it is present largely in an insoluble form."

Which means that baby may have to be given iron from some other source, but that big brother and sister and papa and mama should go right on eating their spinach.

### Conference on Patents

A national conference of all medical patent holders to be held at the headquarters of the association was suggested by the board of trustees as a means of settling the controversial problem of what to do about patents on medical discoveries, such as that of insulin.

At present such patents are held and administered by universities, special committees and foundations and by individual physicians. While physicians are prevented by the association's principles of ethics from deriving any income from medical discoveries, technicians or lay persons connected with the same discoveries, it was pointed out, may profit directly.

It also appears to the medical asso-

ciation's board of trustees that patents held under present conditions may be used to influence medical research.

### Don't Rent Radium

The present widespread practice of renting radium by physicians who do not own and are not experienced in the use of this powerful substance was frowned on by the judicial council of the association. It is considered dangerous for a physician inexperienced in the use of radium to use it merely on the advice of another physician who owns a supply of radium but who has not seen the patient, or from a commercial firm owning the radium. Such a procedure, the council decided, amounts to the unethical practice of prescribing for a patient whom the prescriber has not examined.

### May Damage Brain

The baby's brain may be seriously damaged by giving too large doses of pain-relieving drugs to the mother during childbirth, Dr. Frederic Schreiber of Detroit concluded from analysis of case records of 500 children with degenerative changes in their brains.

Nearly three-fourths, 72 per cent., of these children had not breathed immediately after birth or had difficulty in breathing within the first few days, Dr. Schreiber's study of the records showed. He believes that this disturbance in breathing, whatever the cause, was the reason for the damage to the child's brain.

One of the effects of the pain-relieving drugs given in childbirth, he pointed out, is to depress the breathing apparatus of the mother. This might occur to such a degree as to endanger the unborn child who is still dependent on his mother for oxygen and nourishment.

In one group of 100 cases in which a pain-killing drug or an anesthetic or both had been given to the mother, records showed that 77 babies had difficulty in breathing. The records also showed that the average dose of drugs given the mother was four times the ordinary quantity recommended and in some cases was ten times the recommended dose.

Examination after death shows that deficiency of oxygen causes microscopic changes in the brain and Dr. Schreiber believes that the difference between a living baby with a brain damaged from this cause and one born dead is probably only a matter of degree.

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#### ENTOMOLOGY

## Government Chief Approves Insect Collecting As Hobby

**E**NDORSEMENT for the Science Service article on page 399, on insect collecting as a hobby and as inexpensive summer fun with lasting value, comes from the head of Uncle Sam's insect fighters, Dr. Lee A. Strong, chief of the Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture.

Dr. Strong says:

"The hobby of making collections of insects appears to me to be a good one. Although many people recognize that insects play an important part in our welfare, few realize how many kinds there are or how widely they differ in structure and habits.

"Not all of them are pests—many are very beneficial, others are of little known importance to man. Much of the information on the occurrence of this vast number of insects has been assembled through the effort and interest of those who have studied and collected them as a hobby.

"The insects which attack crops and man's possessions cause annual losses which have been estimated as high as \$3,000,000,000. Much of this can be prevented by applying control measures now known.

"With more information about insects and fuller realization of the importance of them as pests, it is fair to assume that the tribute now paid because of them will be adjusted to the favor of man and his welfare. The collection and study of them, even as a summer pastime, will contribute towards this end."

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#### SEISMOLOGY

## Geological Society Grant For Earthquake Studies

**D**R. Perry Byerly, professor of seismology at the University of California, has been awarded a grant by the Geological Society of America from the Penrose bequest to study the vibration of the earth's crust during earthquakes.

Detailed measurements of the rates of vibration at all stations of the network operated by the University of California will be made during this study, to see just how fast the ground vibrates at each station during a quake.

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