those used by Columbus. This part of the map, moreover, is specifically ascribed by its maker to "Colonbo," which is a variant by only one letter from his original Italian name, "Colombo," the one-letter shift being due, perhaps, to the Spanish rendition, "Colon."

In an endeavor to account for a copy of Columbus' 1498 map being in the hands of the Turks, who were of course enemies of all Christendom at that time, Prof. Kahle has traced in Turkish records the fact that an uncle of Piri Re'is had owned a Spanish slave, captured with some Spanish ships in the western Mediterranean. This Spaniard claimed to have made several voyages with Columbus. Prof. Kahle thinks it not improbable that the Turks may have taken a copy of the 1498 map from the captured ship, and that this copy was in turn copied by Piri Re'is on his map of 1513.

One feature of the Re'is map may throw a little additional light on the still-disputed matter of Columbus' nationality. A group of islands is designated as "the islands of the eleven virgins"; and "eleven" is given in Italian, "undici," not in Spanish, "once."

Science News Letter, October 15, 1932

PSYCHIATRY

Suicide Increase Not All Due to Depression

THE INCREASE in the number of suicides in the United States cannot all be blamed on the depression, in the opinion of statisticians of the Metropolitan Life Insurance Co. While admitting that the depression has undoubtedly had its effect, they point out that the rise in the suicide rate started as early as 1925 and continued through the prosperous time in 1927, 1928, and part of 1929.

The most pronounced increase came between 1929 and 1930. The figures for the industrial policy holders of the company are still below what they were before the World War. During the war years there was a declining suicide rate, due to the fact that people were finding life a great adventure and had less desire to leave it.

The personality of the individual rather than external and environmental factors is considered important in leading to suicide. Therefore those who are concerned with reducing the number of suicides should train such individuals to become more stable. This is declared to be a community responsibility.

Science News Letter, October 15, 1932

PUBLIC HEALTH

Three-Fourths of Cancer Group Succumb in First Five Years

A SURVEY of 1,802 cancer patients treated in seven Philadelphia hospitals in 1923 found slightly more than one-tenth of the group alive six years later. If the patient is alive and well five years after treatment for cancer, the treatment is considered successful by cancer specialists.

Results of the Philadelphia survey, which was made by Dr. Arthur H. Estabrook of the American Society for the Control of Cancer, are made public by the *American Journal of Cancer*. Dr. Estabrook was able to secure information about approximately nine-tenths of the cases treated in seven general hospitals of Philadelphia in 1923. His survey showed these additional facts:

Nearly one-fifth of all patients admitted to the hospitals died in the hospital within a few months after treatment.

Of the 1,802 patients treated for cancer in 1923, 191 were alive six years later. Of these, in turn, 170 were in good condition, while 21 were in poor condition.

The group of patients suffering from skin cancer showed the highest proportion alive at the end of five years. The bone cancer group showed the next highest proportion of five-year survivors, and the other types of cancers showed the following order: cancer of the mouth, cancer of the breast and cancer of the womb.

Three-fourths of the entire group were known to be dead six years after treatment. A little over half of the total group, 957, died of cancer, within one year following treatment.

Nearly one-half of the group delayed one year before seeking treatment. Only a small number, 3.5 per cent. of the total, went for treatment within one month after noticing that something was wrong.

"The period of delay, without consideration of other factors in the life history of the cancer, seems to have little correlation with the end-result of treatment," Dr. Estabrook found.

Nearly a third of those alive delayed more than one year before receiving treatment. About one-fifth of those who died received the first treatment within three months of first noticing the condition. More than a third of those who died received treatment within six months following the first symptoms.

Treatment by X-ray or radium was used in 810 cases. Radiation combined with surgery was used in 653 cases, and surgery alone was used in 336 cases.

Conclusions could not be drawn as to the effectiveness of the methods of treament, Dr. Estabrook pointed out, because of insufficient data.

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METALLURGY

Indium Output May Soon Reach Ten Pounds a Year

INDIUM, metal so extremely rare that its price at present is ten times that of platinum, is becoming available in larger quantity. New ore sources have been discovered in America, and these, together with older known deposits in Germany, yield enough raw material to encourage expectations that the annual output of the finished metal, of 99.9 per cent. purity, will soon reach five kilograms, or a little over ten pounds.

Because it has hitherto been scarce almost to the point of unobtainability, the possible uses of indium are still practically unknown. But with ten pounds a year in sight, chemists are looking forward to researches on it.

One thing is known about indium at present: its salts are not poisonous to human beings. In this it differs from almost all of the other heavier metals. For this reason it may find important uses in medicine.

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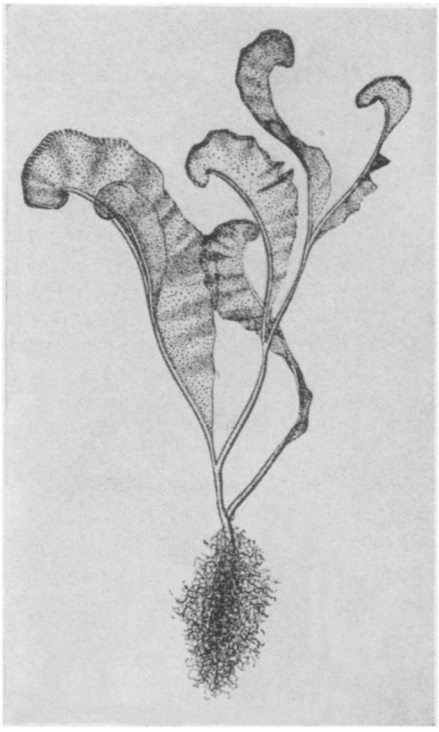
BOTANY

Rare Plant Rediscovered In Western Texas Creek

ONE OF THE RAREST plant species in the world has been rediscovered in Madera Creek, in the Davis Mountains of western Texas, by Dr. R. A. Studhalter of Texas Technological College at Lubbock. Dr. Studhalter has reported his find to the *Scientific Monthly*.

The plant is known as *Riella*, and has



RARE RUFFLES

Drawing of a male specimen of the elusive "ruffle plant" which has been found in only two states.

been given the English name "ruffle plant," because of its peculiar structure. It consists of a slender stem an inch or so in length, with a thin transparent green wing growing out at one side and curling over its end. The graceful undulations in this green wing caused one American botanist to describe it as "a ruffle standing on end."

The plant has thus far been found in only two states, Texas and North Dakota. It grows only in sheltered canyons, either submerged in shallow water or just above water level. Since water in this western country is not always a certainty in any one place, the plant has been very elusive, disappearing from a known habitat and reappearing suddenly elsewhere.

Close relatives are known from the Old World, growing in the same type of habitat: sheltered shallow waters in semi-arid regions. Here also it is an extremely elusive plant.

The ruffle plant belongs to the moss family, and is a member of that subdivision of it known as the liverworts. However, because of its exceedingly peculiar structure and mode of reproduction, it is pretty much a creature apart even among its own botanical kindred.

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CHEMISTRY

Inert Krypton Gas Made To Combine With Chlorine

KRYPTON, one of the rare gases that form a small percentage of the air, has been forced into its first known chemical union by three physicists of the Chemical Institute at Bonn, Drs. A. von Antropoff, K. Weil and H. Frauenhof. This is rated as a scientific triumph, for the rare gases are all exceedingly inert chemically, and under ordinary circumstances do not unite with other elements at all. Only one of them, helium, now well known because of its use in airships, has been driven into chemical activity by several English physicists.

The Bonn experimenters produced what seems to be krypton chloride by a combination of low pressure, low temperature and electric discharge. They circulated krypton gas by means of a pump, keeping the pressure at approximately one to five per cent. of ordinary atmospheric pressure, and maintaining a low temperature with liquid air. As the gas was circulated through a glass tube it was subjected to an electric discharge, and at the same time chlorine gas was introduced.

The pressure within the tube fell, indicating a decrease in the number of the gas molecules present, and therefore the probable combination of the two elements to form a compound with a smaller number of larger molecules. At the same time a dark-red substance appeared, which the investigators take to be the krypton chloride compound.

A similar fall in pressure was recorded when bromine was used instead of its chemical relative chlorine, indicating the possibility of the formation of a second compound, krypton bromide.

"Control" experiments, in which one or the other of the conditions of the main experiment was omitted, or in which argon, another rare gas, was substituted for the krypton, yielded only negative results.

The Bonn experimenters have reported their preliminary results to *Die Naturwissenschaften.* They are continuing their researches, and expect to publish a detailed account in the near future.

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PSYCHOLOGY

Family History May be Useful Guide in Choosing Vocation

PARENTS should consider it their duty to keep a written record of the family history including the occupations of ancestors on both sides of the family and of all near relatives, and boys and girls should give consideration to this record in choosing their vocation, it is advised by Dr. v. Behr-Pinnow in a report to the *Deutsche Medizinische Wochenschrift.*

Musical ability is not the only vocational talent which may be handed down from generation to generation in a family, he points out. Special talent for teaching is also known to run in families. Dr. v. Behr-Pinnow has studied families in the old Bavarian town of Mittenwald which had long been devoted to violin making. The many different aptitudes required for this vocation were frequently handed on entire from father to son. Even those descendants who have left their native home cling to the making of instruments despite unfavorable prevailing conditions. Of course, some will go into entirely different lines of work, but the hereditary aptitude is likely to break through again and again.

In the choice of a vocation, the hereditary factor must be considered more than has been the case in the past, he concluded.

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