

than 1000 pounds. Steering—Effortless. Control—Centrifugal clutch, working with throttle and no other connections. Acceleration—0 to 60 miles per hour in 8 seconds. Economy—30 miles per gallon. Body—Streamlined, fixed windows and enclosed wheels. Comfort—Forced ventilation, with cooling system for summer touring. Tires—26x10 or the equivalent. Price—Around \$2,000 on small production. Mr. Stout foresees that a new type of sales organization and factual advertising appeal would be needed to market the car.

Science News Letter, July 23, 1932

CHEMISTRY

Vitamins Lurk in Spinach Be it Dark, Pale or Curly

YOU can have your spinach pale or dark, smooth or curly, and still get your share of vitamins A, B and C, it appears from studies reported by Hilda Black Kifer and Hazel E. Munser of the U. S. Bureau of Home Economics in the *Journal of Agricultural Research*.

These investigators studied three varieties of spinach, Virginia Savoy, Princess Juliana and Viroflay, each of which has a different kind of leaf, one being dark green, one pale green, and one bluish-green, and each having different degrees of curliness of leaf. All three had the same amount of vitamins A and B and nearly the same amount of vitamin C, judging from feeding tests on a small number of white rats.

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PHYSIOLOGY

People Taller When Prone Than When Standing Erect

YOU ARE not so tall when you stand up as when you lie down. The amount you gain in length by stretching out on your back varies with height and sex, but it may be as much as an inch in some cases. This simple method of adding at least a fraction of a cubit to your stature was observed by Dr. Carroll E. Palmer in the course of an investigation at the School of Hygiene and Public Health, Johns Hopkins University, Baltimore, for the purpose of finding a basis of comparison between the height tables of infants, which are of course based on prone measurements, and those of older children.

ARCHAEOLOGY

Old Greek Cosmetics Made By Modern Lead Paint Process

Princeton Scientist Makes First Find of Face Powder Of the Kind that Causes Painter's Colic, Sometimes Death

GRECIAN damsels of 400 B. C. had white face powder, but instead of being relatively harmless talc it was made of poisonous lead by a process now used in manufacturing white paint.

This has been established by a chemical analysis of the first white cosmetics ever recorded, found in a woman's grave in Corinth cemetery by Dr. T. Leslie Shear of the Department of Art and Archaeology of Princeton University.

The face powder was found in a small terra cotta toilet box which lay in the sarcophagus with a silver coin and other personal effects by Dr. Shear. Brought back to Princeton by Dr. Shear, the cosmetics were recently analyzed by Prof. William Foster of the Princeton University Department of Chemistry and found to be cubes of carbonate of lead. Grecian manufacturers, the analysis showed, had produced the product by basic methods similar to those today employed in the manufacture of white lead, a paint pigment.

The ancient processes of manufactur-

ing the face powder which was known to the Greeks as "psimythion" and to the Romans as "cerussa" are described in classical works. Pliny, celebrated Latin author, described the production.

"It is made from very fine shavings of lead," Pliny wrote, "placed over a vessel filled with the strongest vinegars by which means the lead shavings become dissolved. That which falls into the vinegar is pounded and sifted after which it is mixed with vinegar and then pounded into tablets and dried in the sun of summer.

"There is another method of producing it. Lead is thrown into jars filled with vinegar. The jars are kept closed for ten days and a sort of mold on the surface is scraped off. The lead is put into vinegar until the whole has been consumed. The part scraped off is then pounded and sifted and put in shallow vessels. It is washed with fresh water until all cloudy impurities have disappeared and then dried and made into tablets.

"This is the mildest of all preparations of lead used by females to whiten their complexion," the Latin commentator concluded, "but it is, however, like scum of silver, a deadly poison."

White lead is produced today commercially in essentially the same manner by the so-called Dutch process in which perforated sheets of lead are exposed to the action of acetic acid vapors, moisture and carbon dioxide.

An old Grecian poem warns against the use of cosmetic saying "never by use of psimythion can you make a Helen out of Hecuba."

Dr. Shear has returned to Princeton from Greece where, as field director of the excavations of the ancient market place at Athens, he spent the past season associated with the American School of Classical Studies.

Use of lead, an accumulative poison, as a face decoration continued until relatively recent times and there are records of beautified women eventually dying of painter's colic, a form of lead poisoning.

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