Do You Know?

Approximately 350 *cigarettes* are made from a pound of tobacco leaf.

The Michigan *crayfish,* a pre-war bait or bathing beach pest, now is used as food.

Podubiche, a wild plant in Bulgaria, is said to be valuable in treating malaria and dysentery.

Nicotinic acid, which can be prepared by oxidizing nicotine, is used in the treatment of pellagra.

Low-grade *tobacco* may become an important source of wax, stains, fat suitable for soap making, tobacco-seed oil, nicotine and wallboard.

Through the watchfulness of Audubon Society wardens, *egrets* of Florida's Everglades have been brought back to nearly their former abundance.

Acrylic acid is the basis of a transparent plastic used in warplane noses and turrets; known for a century, it has had no commercial use until recently.

Plastic pellets and compressed air are used in army training instead of bullets and gunpowder to save expenses; the gun in size, action and appearance is much the same as the Browning machine gun.

New flotation *chemicals* are assisting to produce copper, zinc, lead, nickel, chromium, tungsten and other metals from low-grade ores formerly discarded; flotation agents mixed in a water bath with powdered ores raise the metal particles to the surface.

BOTANY

NATURE RAMBLINGS by Frank Thone

Wayside Resources

➤ SEVERAL manuals have come out lately, telling men in the armed forces how to live off the country if they are lost in the jungle or cast ashore on a desert island. Ability to recognize good food plants and knowledge of how to prepare them may, under such circumstances, mean the difference between death and survival.

Those of us who remain behind to hold the home front are not confronted with anything like so severe an emergency. Nevertheless, what with increasingly strict rationing of many kinds of food, and total disappearance of some kinds from the market for weeks on end, a revival of the wild-food lore our pioneer forebears knew might be a highly useful thing.

A comprehensive round-up of tested information about edible wild plants is supplied by a new book, *Edible Wild Plants of Eastern North America,* issued as a special publication of the Gray Herbarium and published by the Idlewild Press at Cornwall-on-Hudson. It is the joint work of a botanist and a zoologist: Prof. M. L. Fernald of Harvard University and Prof. A. C. Kinsey of Indiana University. They list a most astonishing number of wild food plants that can be had "for free," requiring neither cash nor coupons.

Next to the obvious, ready-to-eat things like wild plums, red-haws and many kinds of berries, one would perhaps most quickly think of succulent leaves and stems that can be eaten fresh as vegetables or cooked up into a tasty mess of greens. In these classes, some species have already found enough favor that one occasionally meets them in the market: pokeweed, for example, and dandelion, and chicory. We might be less likely to think of pigweed, purslane, marsh-marigold and spring-beauty in this connection, but they are said to be good eating, too.

But there are more filling foods in the list, especially in the calorie-supplying carbohydrate classification. Besides the highly nutritious nuts (some of which supply oil as well) we are offered arrowhead tubers, wild rice, water chinquapin, Jerusalem artichoke, wild salsify and dozens of others.

In all, the authors present no less than 14 different categories of wild plant foods, ranging literally from soup to nuts.

One of the things that strikes a more or less town-bound botanist on glancing over this book is the fact that you don't have to go out into the wilderness, like John the Baptist, to find these neglected but often appetizing wild food plants. Most of them grow within the easy range of a suburban ramble, and many of them crowd up abundantly as common wayside weeds.

Science News Letter, November 27, 1943

ENGINEERING

Instrument Perfected To Measure Engine Leakage

➤ A NEW instrument to be used in testing the efficiency of diesel and other internal combustion engines by measuring gas leakages from the cylinders was described at the National Fuels and Lubricants meeting of the Society of Automotive Engineers in Tulsa. The instrument continuously and automatically records the leakage, or "blow-by," of the hot gases and the charging air which may escape past the piston rings in the engine cylinder.

The blow-by recorder consists of a standard household gas meter to which the new instrument, a recording unit, is attached. A revolving pointer on the unit passes through a trough of mercury once on each revolution, establishing an electric circuit which passes to the recorder itself.

Blow-by gases cause abnormal piston ring and cylinder wear. The hot gases, resulting from the ignition of the fuel charge, press downward on the piston head and the compression ring. If they pass the ring they destroy the film of oil on the cylinder wall, causing wear and burning.

The instrument was developed by R. R. Proctor, A. J. Stock, and D. J. Wangelin of the Pure Oil Company.

Science News Letter, November 27, 1943