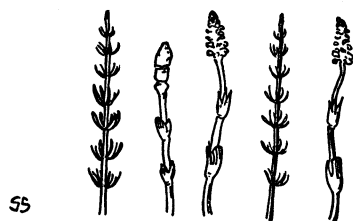


## NATURE RAMBLINGS

By FRANK THONE



## Coal Age Relics

"Equisetum" — "horse-bristles" — the ancients called them, so do the learned botanists call them still; "horsetails" they are to us. Except that a generation of children, now almost vanished before the oncoming of central heating, used to know them as "stovepipes" because their stems could be taken apart and put together again so neatly. Fairy stovepipes they must have been, however, burning white coal, for there was never any soot in them.

Their connection with household heating, however, is more intimate than the fancied resemblance of their stems to flues. Many and many a fossil horsetail stem has gone up a real stovepipe as real smoke. For the vast, weird forests of the Coal Age were in part made up of close relatives of these queer little plants, whose matted remains are now sold and burned by the ton, with little attention to the fluted lines and little leaf-fringes that may be traced where a lump has split.

These horsetails of the past were not all little fellows like their survivors. There were giants in those days: horsetails with trunks a foot in diameter, sprawling along the ground or scrambling into the air for thirty or forty feet. But the giants, for some unknown reason, became extinct, and only the dwarfs remained, to be shouldered unceremoniously into ditches and waste places by plants of a later evolution. Still they survive; they have seen the coming of the dinosaurs and their departure, and the advent of the mammoth and the mastodon and their passing also. Who knows but that, having seen the beginning of our race they may not outlive us as well?

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Buckets, dippers and pitchers are now being made of hard rubber.

Chestnut trees killed by blight are still valuable as timber for a year or two.

## Great God Gasoline

The Baku region, the magnet that is drawing the oil interests into the East, was the center of the fire worship of the ancient Magi.

In a history of fire as an agent in human culture just issued, Dr. Walter Hough, head curator of anthropology in the U. S. National Museum, reveals that a Parsee fire temple near Baku made the first recorded use of natural gas about the beginning of the seventh century. According to one account, the gas well was ignited by accident and continued to burn in the shrine that was built over it for over a thousand years.

The discovery of petroleum in North America during the nineteenth century, Dr. Hough points out, probably saved the whale from extinction since it put an end to the great whaling industry which had developed out of the use of sea-oil lamps. A unique torch used by the natives of the Orkney Islands, utilizes the body of the stormy petrel for illumination. The sea bird's body is so impregnated with oil that it makes a good light. The burning is sometimes facilitated by the insertion of a wick, thus making a true lamp.

The first people to use coal for fuel, according to Dr. Hough, were the Pueblo Indians of Arizona. It was dug out of nearby veins for firing pottery but as far as can be ascertained was used only for this purpose. This sporadic use of coal antedated by many centuries its employment for fuel by civilized man.

Roman houses were heated by a kind of hot air furnace system of pipes that conducted heated air through the rooms from a subterranean furnace. During the supremacy of Rome, also, olive oil formed the basis of one of the greatest developments in the history of illumination, declares Dr. Hough. The use of the oil burning Roman lamp extended throughout the regions bordering on the Mediterranean, dating from the time when the empire became developed sufficiently along economic lines to have an excess of oil over what was needed for food.

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Most young animals lose their milk teeth and get a second set, like human beings.

Blue and orange filters to lessen the glare of automobile headlights have been proposed.

## Earthquake Not Unexpected

While no special prediction had been made of its occurrence, the earthquake which shook Osaka, Kobe, and other points in Japan on Monday, March 7, was not entirely unexpected, Commander N. H. Heck, in charge of the U. S. Coast and Geodetic Survey's seismic investigation, states. Commander Heck has recently returned from a trip to Japan. When there he visited Osaka with Prof. Matzuyana, of Kyoto University, one of the leading Japanese seismologists, and looked over the very site where great damage was done. Both he and Prof. Matzuyama recognized the possibility of a quake there, he said.

Though considerable damage was done on land, the quake was probably centered in the Pacific Ocean off the Japanese coast, said Commander Heck, after studying earthquake reports gathered by Science Service. The location of the center appeared to be at about 34 degrees north latitude and 137 degrees east longitude, he said. This was based on records obtained by seismographs at Georgetown University, Washington; Fordham University, New York; the Dominion Observatory, Ottawa, Canada; the U. S. Weather Bureau, Chicago, and the stations of the Survey at Cheltenham, Md., and Tucson, Ariz.

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## Edison-Ford Rubber Vine

The Madagascar rubber vine, with which Edison is experimenting as a possible source of tires for the products of Ford, is a relative of the common milkweeds, according to Dr. O. F. Cook, senior botanist of the U. S. Department of Agriculture. About four per cent. of the total weight of the plant is rubber, and the product as exported from Madagascar has been considered of good quality, though not equal to the rubber of the Brazilian Hevea tree. The lower quality, however, may possibly be due to the primitive methods now used in obtaining the Madagascar rubber, and more scientific chemical treatment may serve to remedy this. Though no serious efforts have hitherto been made to exploit the vine commercially, it is known that it will grow freely in southern Florida, and efforts to extend its range northward into the regions of occasional frosts will be followed with interest. The vine belongs to the genus known to botanists as *Cryptostegia*.

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