

The Extravagance of Our Forefathers

Chemistry

By EDWIN E. SLOSSON

There are many things our ancestors did that we cannot approve of, but perhaps nothing shocks us more, when we think of it, than their wasteful habits. The modern man supports his family on what his grandfather threw away. It appears that once they butchered animals for their meat. To our economical minds this is as shocking as to read of hunters on the Western plains who slaughtered buffalo by the thousands to get their hides. Nowadays the packers could afford to give away the meat because they make more money out of what used to be mostly refuse. Still, they are not satisfied. They keep experts at work all the time shortening the process so fewer people need spend their time at this necessarily disagreeable work. Their chemists run after the doctors, crying, "Here's a useless organ. Can't you use it in your business?" And the doctors hunt around until they find a use for it, in stopping blood, curing cretins, digesting banquets or something else.

The dump-heaps of our ancestors are our mines. We go over them and pick out the precious metals they left, the gold, uranium and radium. Whenever they made anything they were just as likely as not to throw away the most valuable part. When they made soda they let the chlorine escape into the air, contaminating that, instead of utilizing it to make bleaching powder for purification. When they made charcoal, they let the alcohol and

the vinegar and a hundred valuable medicines and perfumes go up in smoke. It was like burning up a whole drug store. When they made iron they let the slag go to waste instead of making cement for walks and bridges and houses out of it. When they picked the seeds out of cotton they threw them away, never thinking how much salad oil could be got out of them.

The farmer's wife who put her wood ashes into a wooden hopper in the back yard thought she was economical, but when she made her soap she threw away the glycerine, never dreaming that she might blast out subways with it or blow up a Czar. Into the fireplace were thrown great logs, enough to print a Sunday edition of a yellow journal. Perhaps a hundredth part of 1 per cent. of the heat it produced reached the joint turning on the spit or the shivering limbs of the household. The ancient Chinese way of roasting pig was miserly in comparison.

When they used coal they burned it right up under the boiler in making steam. If they had had any ideas of economy they would have made gas of it and exploded that in the cylinder, conveying power from a central plant with little leakage by electric wires. When they made gas for lighting they did not even take the trouble to save the ammonia and the sulfur. To celebrate a political election the boys were allowed to burn barrels of tar, sending up in nasty smoke finer perfumes than attar of

roses, flavors of more fruits than the botanist knows, dyes of more colors than there are in the rainbow, and medicines that cure all the diseases that the flesh has since become heir to.

Nowadays, when we practice our stricter economies, partly on account of their prodigality, our filial respect for them is impaired by the thought of their lack of consideration for us, their heirs. We would not mind their waste of time and labor, foolish as it seems, if they had not also squandered the world's capital, its natural resources.

Those were the days when pins were saved, when carpenters stooped to pick up dropped nails, and scraps of paper were pasted together to make notebooks. If they had had forethought they would not have shaped pins and nails expensively by hand and made paper out of such valuable material as rags.

Penny wise and pound foolish our grandfathers were. Of course, we must remember that they did not know any better, but to read of their carelessness is like watching a child burn up the paper money that he has found in his father's desk.

Science News-Letter, June 30, 1928

High Pressure Steam

Engineering

High-pressure methods of modern business are now used in the boiler houses and power plants as well as in sales offices. More than twenty designs of boilers successfully operating and generating power at pressures of 500 pounds per square inch or over were described to the American Society of Mechanical Engineers at Pittsburgh, recently, by George A. Orrök, New York engineer.

Although the usual boiler installation generates steam at about 200 pounds pressure, there are six successful designs that operate at over 1000 pounds and one at 2000 and over. Forty power plants in the country use the newly evolved high-pressure boilers of more than 500 pounds pressure.

Saving in fuel, space and economies in operation are reported as a result of the use of the higher pressures.

Science News-Letter, June 30, 1928

Insects Make Late Appearance

Entomology

Caterpillars, moths, grubs and other insects due to put in an appearance about this time of the year are behind schedule, according to the U. S. Bureau of Entomology. All the crawling, flying pests that distract vacationists and drive farmers and fruitgrowers frantic should have appeared from two to three weeks earlier and their absence, or presence in small numbers only, indicates that the season is still late.

However, the Nova Scotia season is three weeks ahead of last year's schedule and fruit growers there are already being advised to begin late

treatment for red mites and bud moths.

In the United States white grubs and cutworms appear to be less prevalent than last year, but the wireworm is doing unusual damage in the New England, East Central and West Central states.

Cabbages, asparagus and cucumber plants are suffering severe attacks from the insects peculiar to them. The European red mite survived the winter well and will be present in large numbers again this year, probably exceeding the infestation of last season.

Science News-Letter, June 30, 1928

“Sumer is icomen in”

Take along a book—on your vacation. Even if (especially if, perhaps) you spend it on the porch.

You don't want heavy books for summer reading. But you don't want “tripe” either. Summer shows Nature's great laboratory going full blast. Here are a few “laboratory guides”:

Animal Life in the Carlsbad Cavern

By VERNON BAILEY. A fascinating study of the strange fauna of the most recently opened of our great national marvels. Amply illustrated. \$3.00.

The Beaver

By E. W. WARREN. Tells the truth about a very busy and interesting animal friend about which much nature faking has been written. Plenty of pictures. \$3.00.

Fogs and Clouds

By W. J. HUMPHREYS. A picture dictionary of the nearer heavens. Includes nearly a hundred of the finest cloud photographs ever assembled in one volume. Makes possible a keener appreciation of the beauties of the skies. \$4.00.

Rain Making and Other Weather Vagaries

By W. J. HUMPHREYS. A highly entertaining presentation of why the rain makers don't make rain—and amusingly exposes many other weather fallacies men indubitably cling to. \$2.50.

Research Narratives

Compiled by ALFRED FLINN. A series of 50 five-minute sketches of research invention and discovery. A book to be picked up anywhere and read with pleasure. \$1.00.

Leaf Mining Insects

By JAMES G. NEEDHAM, STUART W. FROST and BEATRICE H. TOTHILL. Quite the most pleasantly written nature study you have ever read. The leaf miners are representatives of the most numerous species of animal life on the globe. There is human interest in their behavior and habitat, since they are first consumers of the world's sole food supply. \$6.00.

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BALTIMORE, MD., U. S. A.

Flower-Child

Archæology

FRANK L. HAYES in “Field Museum Musings” in the *Chicago Daily News*:

Before the coming of the conquistadors, the Spanish adventurers who conquered Mexico, the native Aztecs and Toltecs worshipped gods whom they represented by stone images. The god of rain was shown with tusked mouth, ringed eyes and long fingers, the god of wind with lips like a bellows, and Flower-Child, the god of music and flowers, had a crested head and uplifted face.

Said Flower-Child: “I want to wear
The crest of some wild bird;
I want to hear upon the air
Tunes mortals never heard.
I'll wear the bright volcanic glass
A gem within my breast.”
Walk softly, mortal folk who pass,
And do not break his rest.
Why do we see upon his face
That yearning look of pain?
Such anguished lines we cannot trace
On brows of Wind and Rain.
Perhaps he wrings his hands in dread
At hearing on these shores
The menacing, discordant tread
Of bold conquistadors.

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Airplanes are useful to seal hunters in locating ice floes where seals are gathered.

Since fish are believed to be color blind, the fisherman's gaily colored flies are probably more intriguing to the man than to the fish.

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