

Power Through The Ages

As mankind enters the age of atomic power, it is well for him to consider how this era might affect the complexity of life in the future. Predictions are difficult. We do know, however, that the development of new power sources in the past meant a higher degree of specialization and sophistication in the lives of our forefathers.

If all the machines ever invented were set up in a row, they would forever remain a silent mass of useless parts without a source of power. Whether we turn to muscular power, water, steam, electric or atomic, the saga of power through the ages is endlessly fascinating.

A man cannot budge a boulder with his bare hands. But when he pushes a crowbar beneath it, props a rock under the crowbar, to serve as a fulcrum, then pries downward, the boulder moves. This discovery prompted an early Greek, Archimedes, to boast that he could move the world with a simple lever.

Today, of course, machines do much more than move boulders. Yet the moving of all mechanical devices can still be reduced to combinations of five "simple machines" known to the ancient Greeks — the lever, the wheel and axle, the pulley, the inclined plane and wedge, and the screw.

A Roman engineer of the First Century B.C. put machines to serious, heavy work. He turned a crude wheel on edge and thus invented a basic prime mover, the vertical waterwheel. The wheel came into use during a time when the Roman population was clamoring for cheaper bread. In the Fourth Century, flour mills were built that produced 28 tons of flour in one 10-hour day, enough for 80,000 people.

It was water — and the waterwheel — that continued to be man's single greatest source of power until the coming of steam. As waterwheels were improved, they powered machinery that sawed wood, pressed olives and processed cloth. Water power could also be harnessed for the rich gold, silver, copper, iron, zinc and lead mines along the swift streams of Central Europe.

In the 17th Century, discoveries established the facts that water, when boiled, becomes steam; steam expands; there is power in this expansive force; when steam cools, it condenses; and, if this process takes place in a closed container, it will create a vacuum.

Many odd ideas came to be associated with power prior to the Industrial Revolution. Some believed it immoral to drive faster than a horse can run. Others thought it "impossible" for anything to be more powerful, pound for pound, than a water buffalo. Still others thought it "insane" to try "driving through the air in a machine."

The age of invention dawned in different countries at different times, bringing with it new machines and tool and agricultural techniques. One great invention bred another, beginning in England in 1698 with the steam engine and the application in 1785 of steam power to drive machines for spinning and weaving.

French, German and Belgian inventors in the 1880's added the water turbine internal-combustion engine, and electrical generation engine, American inventions like the cotton gin, steamboat, reaper and telegraph provided the new nation with technological independence.

Today, human effort and convenience hinge on machines powered by water or steam. It brings energy to homes, for cookstoves, lights, telephones, radio and television. Electric toasters, coffee makers and heaters are common. Many homes have electric cooking ranges.

A key facility of the nation's essential power industry is the more than 100,000,000 wood utility poles now in use in the United States.

Electric wires that deliver the nation's electricity to homes, farms and industry. They are pressure-treated so that they give efficient service for more than 25 years.

All of the nation's electrical utility companies (both public and private) use chemically-treated wood poles for more than 90%

Math Errors Delay Tax Refunds

Mathematical errors by Buffalo District taxpayers have caused 76 income tax refunds to be delayed so far this year, John E. Foley, Buffalo District Director, Internal Revenue Service said today.

The mathematical errors, Mr. Foley said, will result in some taxpayers receiving a smaller or larger refund while others will receive a bill for additional tax due.

Under the IRS Automatic Data Processing System, computers verify mathematical computations. When an error is detected, IRS must make the necessary correction before a refund can be issued.

In the first 56,841 returns processed so far at the IRS Service Center in Andover, Massachusetts, many types of errors other than mathematical have been detected.

These include 458 who failed to sign their return. No tax return is accepted without the taxpayer's signature; two signatures are required if it is a joint return. Unsigned returns have to be sent

back to taxpayers for signatures before refunds can be processed. Processing of 701 other returns were delayed because required W-2 Forms were missing.

Mr. Foley advised taxpayers to include a W-2 Form from each employer for whom they worked. Employees who lose their W-2 Forms should get a duplicate copy from their employer.

Mr. Foley asked taxpayers to use the Form 1040 pre-addressed name label that came with their return. The label contains information vital to the processing of the return including name, address and Social Security number.

Taxpayers who detect an error on the label should correct it on the label itself. Use of the label allows IRS to process the return more speedily than those without name labels.

The IRS Service Center in Andover, Mass., up to last week had processed 5,207 returns of Buffalo taxpayers due refunds totaling \$925,379.87.

Conservation Department Urges You To Keep Your Dog Confined

Conservation Department Regional Game Managers, keeping an eye on deer wintering conditions in the upstate New York area, report that all regions continue to have evidence of dog chasing deer although the problem has eased in the last week or two.

Weather conditions have improved to the point where more deer have been able to leave concentration or yarding areas in search of food. Snow depths have

increased in most areas leaving the ground bare of many south-facing slopes in lowland areas.

In addition to deer killed by dogs, there have been reports of deer struck by cars and animals disabled on ice-covered lakes and ponds.

According to the observation Department the problem of dog chasing and killing deer is a worthy one. The Department urged all dog owners to either control or confine their pets during the winter months.

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Cut Calory Intake To Trim Waistline

Counting calories is a favorite pastime among those of us who want to lose weight.

The term "calory" is used as a unit in expressing the energy-producing value of food. When we say that a tablespoon of honey contains about 100 calories, it means that the honey, when utilized by the tissues of the body, will release that amount of energy to be expended in bodily activity.

The usual weight-reduction goal of one or two pounds loss per week is achieved by a daily intake of 500 to 1,000 calories less than the intake needed to maintain the weight at which reducing was begun.

The American Medical Association's home health book, Today's Health Guide points out that 1,000 calories represent the smallest practical intake that can provide the recommended daily allowances of essential minerals and vitamins through usual food sources. For children, the minimum figure on which to lose weight is close to 1,400 calories with 1,800 often recommended to ensure a margin of safety.

Not all of us are different, and

They should be weighed and in consultation with your physician. He can help you arrive at a reasonable figure, permitting you to lose weight steadily and gradually, and at the same time maintain good health and not go hungry.

Liquid formula diets unquestionably have helped many persons to lose weight. Although some of these preparations combine the merits of economy, acceptability and nutritional balance, they tend themselves to short-term, intensive

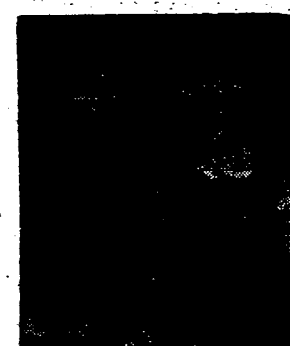


weight loss. This only postpones the day of reckoning when the dieter must return to usual food habits.

Calory charts will help guide you in determining what you can eat and in what quantity, to maintain your desired daily intake. Some diet specialists now recommend five or six small meals a day, rather than two or three large ones. Others favor periods of complete fasting at the onset of the diet for an excessively overweight person.

Whatever program your physician recommends for you, there is one thing to remember — often to our regret, to lose weight we must expend more energy than we take in.

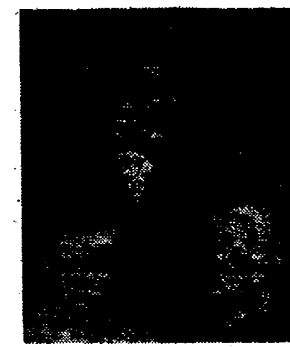
Citizens of Tomorrow



Ronald G. Penny, 5, Pammy 4, Billy 3, children of Mr. and Mrs. Ronald L. Glover of 57 Rochambeau Ave., Andover



Topy, 4, Jeffrey 3, children of Mr. and Mrs. Paul Ordway, 26 Rochambeau Avenue, Andover



Francis, 4, Michael 2 1/2, Gerald 11 mo., children of Mr. and Mrs. Leo D. Joyce of Greenwood Street, Andover



Sharon Anita, 4 1/2, Helena 2 1/2, children of Mr. and Mrs. Richard Davis of 8 Hill Street, Andover



Warren 10, Eddie 3, children of Mr. and Mrs. Doris Olden of R.D. 2, Andover



Nancy 7, Vicki 3, children of Mr. and Mrs. Merle Brown of 10 Burney Street, Andover