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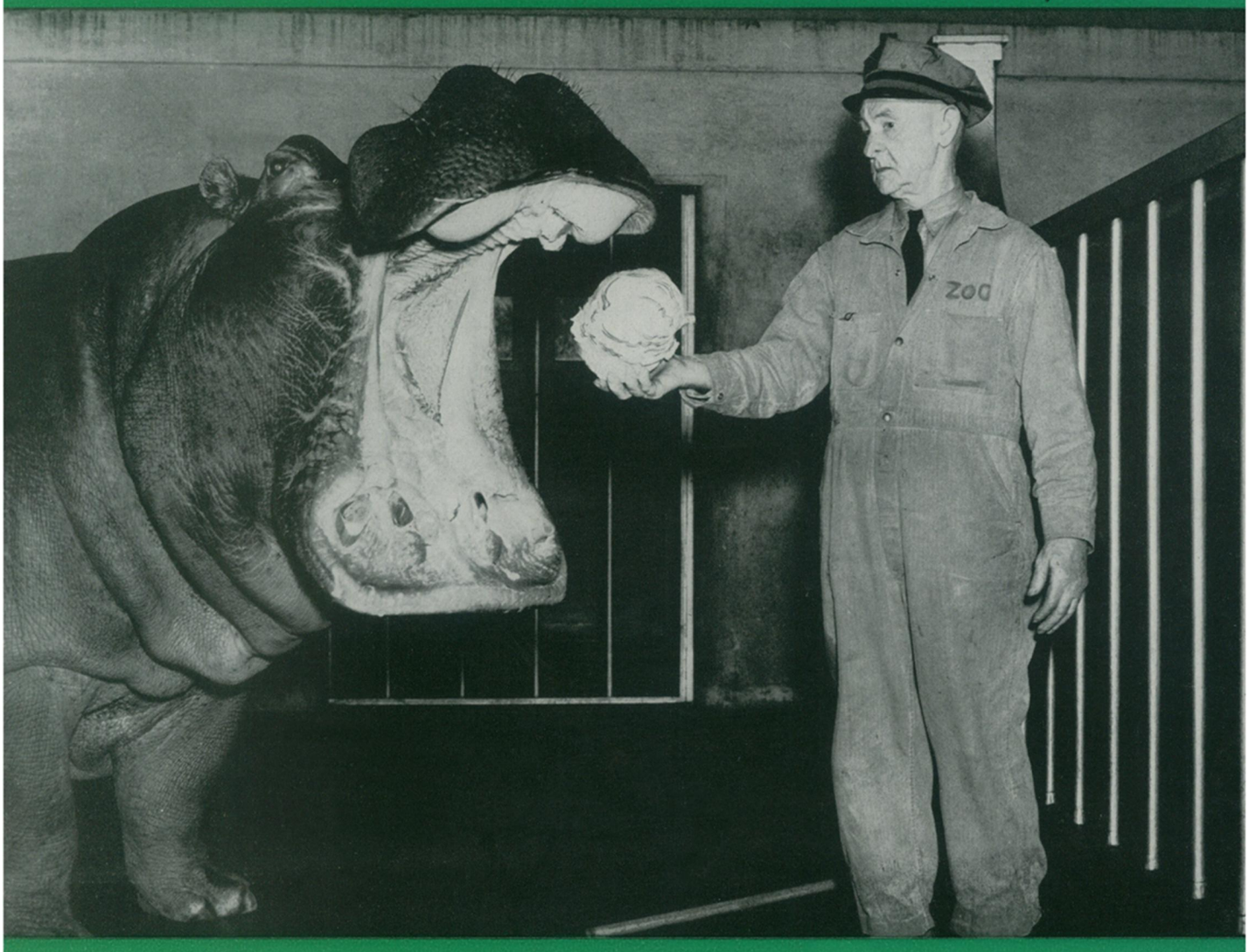
SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • MAY 6, 1944



Toothsome Tidbit

See Page 297

A SCIENCE SERVICE PUBLICATION

KEEPING UP WITH *Electricity*

BROADCASTING TIN. "Flowing" tin plate by induction heating is now accepted practice in the industry. Frequency used in the first installation was 200,000 cycles per second—and the equipment was salvaged from a discarded broadcasting unit! Incidentally, this first installation is still in daily use.

IT'S A MATTER OF SPEED. Radium gives out 1,200,000 times as much energy as the same weight of coal burned with oxygen. Even if we had plenty, however, it would probably be a poor substitute for coal, since it releases energy only one-eightieth as rapidly. Nothing that scientists have been able to do has had the slightest effect in speeding up the process.

THE SUN IS STILL SLOWER, releasing energy by a process which involves the transmutation of elements and takes between six and seven million years.

WOMAN'S WEAPON. One reason that electric irons aren't being made is that the thermostats used to control their temperature are busy on land, sea and air. They're guarding against motor trouble in tanks, fire danger in planes, overheating in gun equipment on battleships.

PEAK FLATTENERS. Resistance welders have speeded up production in thousands of war plants, but they have imposed enormous on and off single-phase loads on power circuits, often building up impossible peak demands. Capacitors are proving to be the answer, correcting the power factor to approximate unity.

THE HIGHER, THE FEWER no longer applies in radio vibrators. At high altitudes, vibrator contacts literally "boiled away" in ten hours, hence this type of radio was seldom used in airplanes. New-type vibrator, using Westinghouse-developed materials and techniques, has a life expectancy equal to that of the plane.

When 4800 horses put on the feed-bag

—— somebody may go hungry

▶ To send a thousand bombers over Germany for just *one raid* takes somewhere in the neighborhood of a million and a half gallons of high-octane gasoline.

That's one reason why we're short of gasoline on the home front. The "cream" of U. S. gasoline, the high-octane components, as well as the lion's share of our supply of antiknock fluid, is going into fighting gasoline.

Remember, practically every gallon of America's aviation gasoline contains Ethyl antiknock fluid.

More and more Ethyl is going overseas today, but after the war much of the high-octane gasoline now needed for fighting will be available for automobiles, trucks, buses and farm tractors. Ultimately, automotive engines will be designed to take advantage of this better gasoline and you'll get more work, more power and more economy out of every gallon.

We look forward to the time when our research facilities, now engaged in war work, will be free once more to work hand in hand with engineers of the automotive, aviation and petroleum industries in developing the better, more economical transportation of the post-war world.

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ETHYL CORPORATION

Manufacturer of Ethyl fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

CHRYSLER BUILDING, NEW YORK CITY

ETHYL
BRAND OF ANTIKNOCK COMPOUND
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