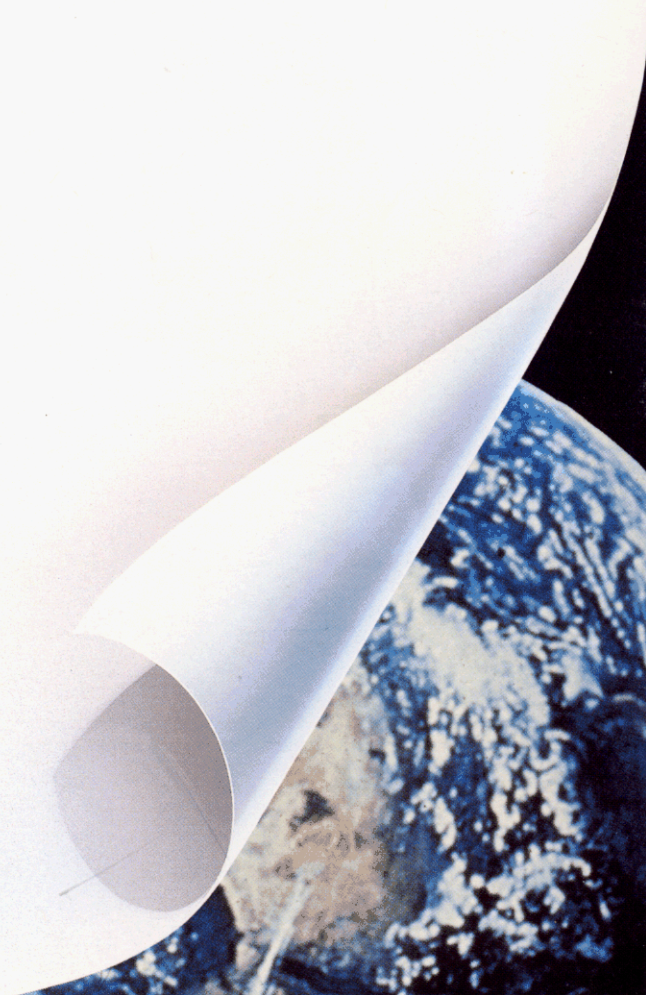


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Trail Smelter

Tom Schwets
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LEAD LOOKS AHEAD



THE LATEST WORD ON LEAD.

How important is lead? It is essential to modern living. Lead is important enough to be the world's fifth most used metal and most recycled metal.

The dominant use of lead is for batteries; batteries that start your car every day and batteries that are used in electric vehicles such as wheelchairs and golf carts. In fact, hospitals, telecommunications and computers rely on batteries during power interruptions. Lead also helps control noise and air pollution and provides radiation protection to patients, health care professionals and workers in the nuclear industry. In addition, lead is still used in traditional applications such as fine crystal and leading for stained glass windows.

Despite its importance, lead is toxic and it can cause adverse health effects if ingested and absorbed into the bloodstream. Through industry initiatives, better education, and legislation, the risks associated with lead exposure have been greatly reduced.



Transportation, Energy Management, Health Care, Environmental Control.

You may be surprised to learn that lead plays a crucial role in these high priority fields. In short, the latest word on lead is that it is one of the world's most versatile and essential metals - something you'll discover for yourself as you read this booklet.



ROUND AND ROUND IT GOES.

Most recycled lead comes from batteries.

When it comes to the recycling of metals, lead is the leader. Close to 80 percent of the lead used in the Western World is collected and recycled into new products. This is the highest recovery rate of any metal, and it's due in part to the fact that an efficient collection and processing system has been developed throughout the world.

The major recycling loop for lead batteries is as follows:

- Used automotive batteries are collected by battery dealers or service stations as new batteries are sold and installed.
- Accumulated used batteries are shipped to a recycling processor.
- The processor separates the lead components from plastic cases.
 - Plastic is re-processed and used to make products such as new battery cases.
 - Acid is neutralized or used for fertilizer production.
- Lead components are reprocessed into ingots at smelting operations to make new batteries and other products.



GETTING OFF TO A GREAT START.

Every morning, millions of people count on their car batteries to generate the vital spark they need to get rolling. In fact, this application is so extensive that 65 percent of the lead used in North America finds its way into automotive batteries.

Most of the time, we don't even think about the battery in our car. We don't have to. Modern batteries are that reliable and efficient.

Battery makers, however, do think about their product - constantly. Continuing research is achieving important breakthroughs in performance. Leading automakers have announced that mass market electric vehicles could be practical within this decade, and lead-acid batteries will play a vital role.

Wider use of electric vehicles would reduce the world's dependence on fossil fuels. And, good news for the environment - electric vehicles are virtually emission-free.

FROM FAIRWAY TO RUNWAY.

From golf carts to lift trucks, wheelchairs to baggage loaders, battery-powered vehicles are worldwide favorites for special transportation and materials handling needs. The batteries that power these vehicles are virtually emission-free, can be easily manufactured in high volumes for a low cost and are made with readily available and recyclable lead.

Battery-powered vehicles are the perfect alternative when extra safety is needed. For example, they're

used for airplane push-back vehicles where they provide safe power, free from sparks which could trigger an explosion of combustible gases. In enclosed workspaces there's an extra benefit: total absence of exhaust fumes.

Today, new fast-charging technology for lead batteries is making battery-powered vehicles even more productive in every application.

MAKING LIGHT OF ENERGY NEEDS.

Around the world, lead is on the job to lighten the load in energy management.

Energy Storage.

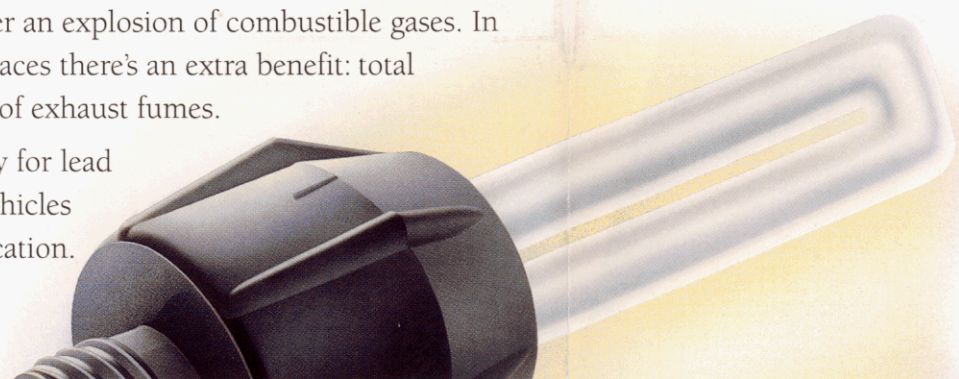
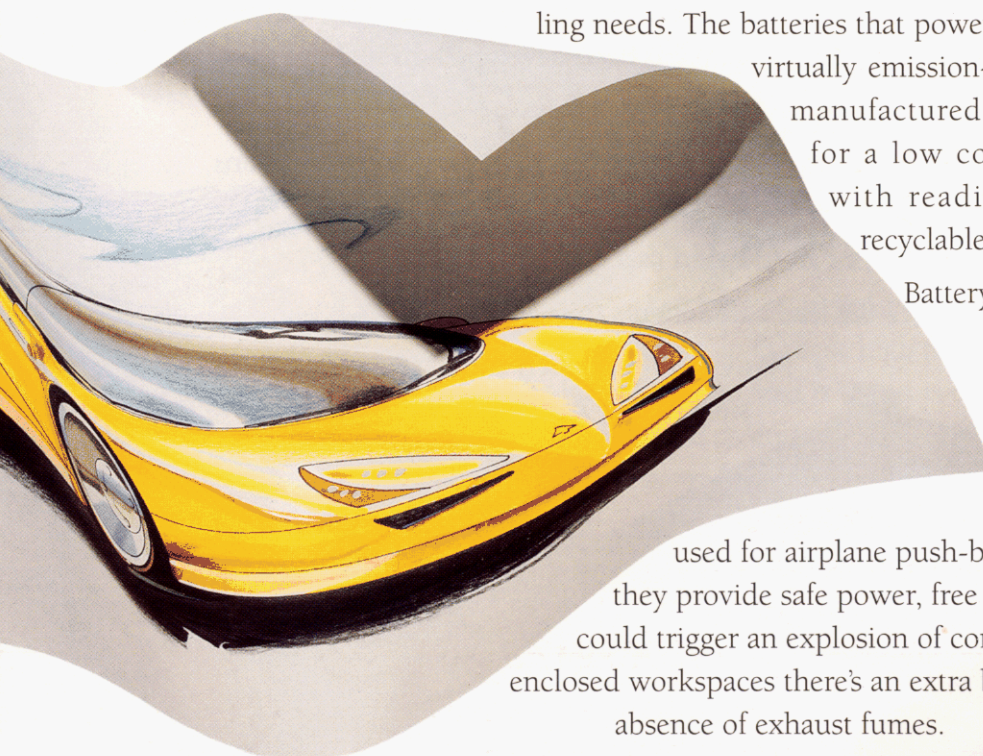
More and more electric utilities and energy consumers are finding it economical to use large "battery banks" to store electricity produced during periods of low demand. The stored energy is then released from the battery bank when demand for electricity peaks. Battery banks for "load-leveling" demand management systems are already operating in the United States, Japan, and Germany.

Power utilities and energy consumers in these countries are taking advantage of many benefits: fewer power shortages, lower-cost electricity, conservation of fossil fuels, and less need to build new power generating stations.

In wind and solar powered systems, batteries also play a key role - they store electrical power to supply the system when the wind and the sun are unavailable.

Energy-Efficient Lighting.

Besides being an excellent conductor of electricity, lead is a "soft" metal - one that can easily be shaped. That's why lead is the preferred material for key components inside every incandescent and fluorescent light - even the newest energy efficient types.



YOUR PROTECTIVE SHIELD.

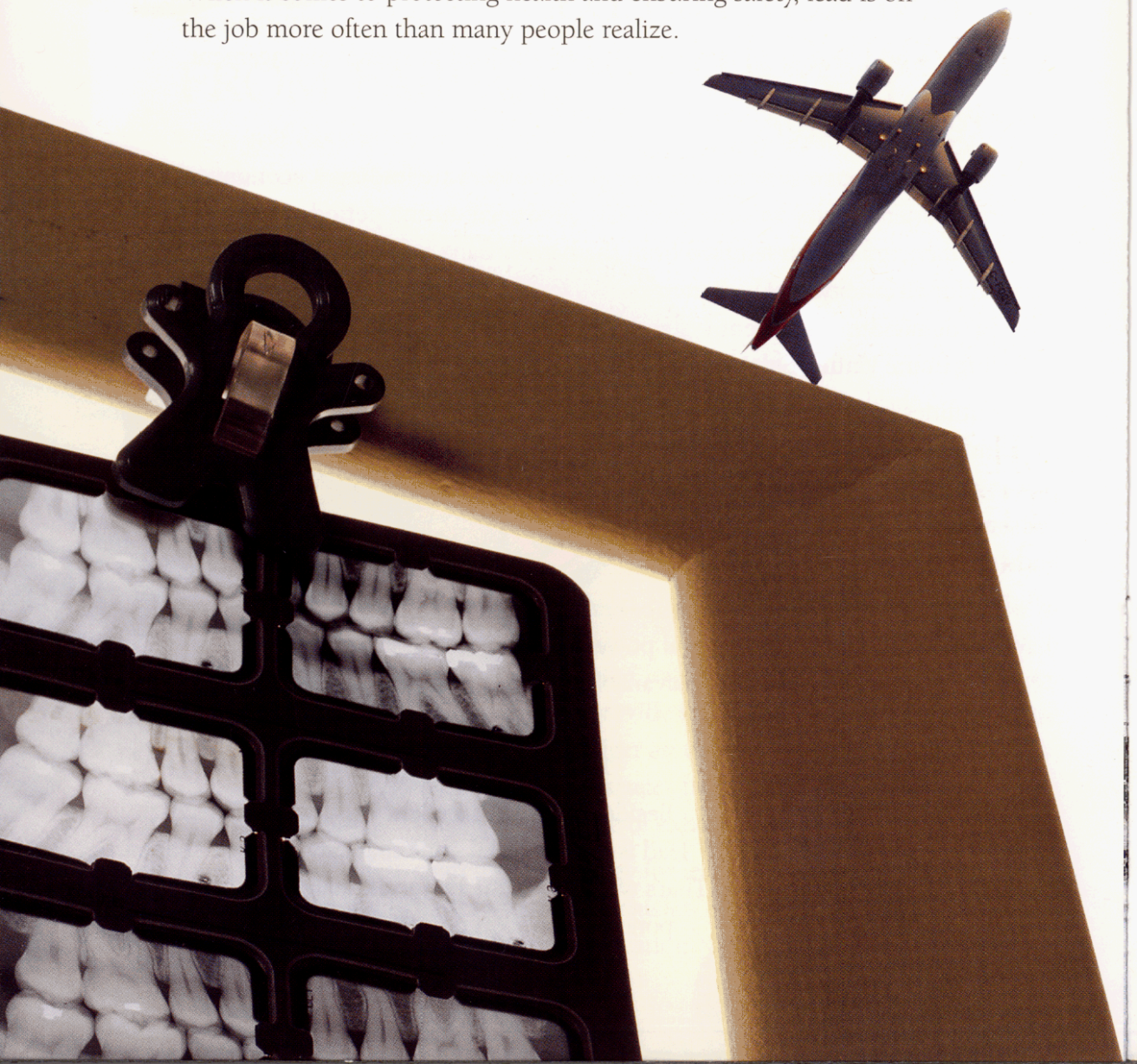
Every time you have an X-ray taken - even if it's just your annual dental checkup - you and the technician rely on lead shielding for protection.

Lead is simply the most effective radiation shield there is. It's used for X-rays, and for precision control of radiation in the treatment of cancer and other diseases. For overall protection of staff and patients, lead is often built right into walls, floors, windows and doors of hospital X-ray facilities.

Similarly, lead shields people who work in the nuclear industry as well as industrial workers who use X-rays for weld inspections and other purposes.

Lead protects you whenever you watch TV or use a computer monitor, leaded glass in the tube and in the face plate of the screen blocks out potentially harmful radiation.

When it comes to protecting health and ensuring safety, lead is on the job more often than many people realize.





CLEARING THE AIR.

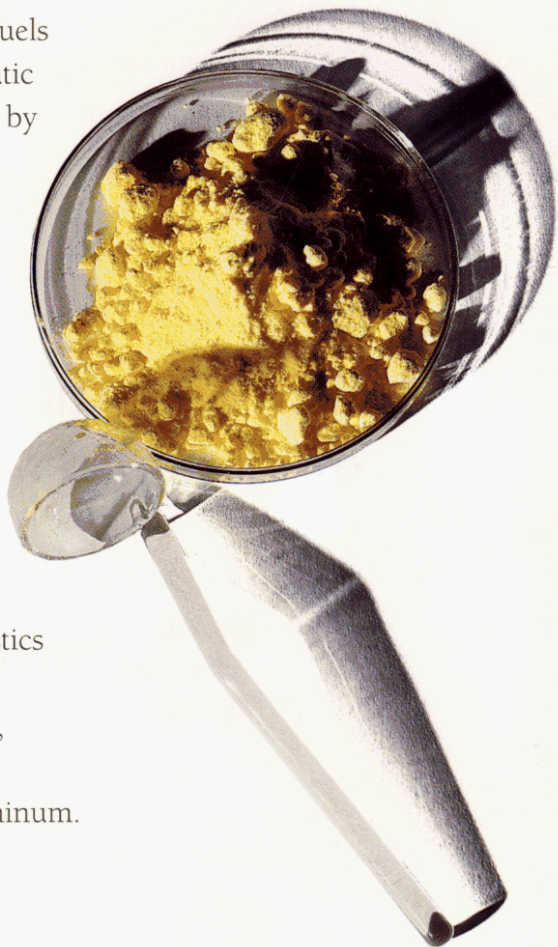
In the battle to control sulphur emissions and reduce acid rain, lead has a front-line position.

Lead is an essential component in equipment used to recover sulphur from gases produced when fossil fuels are burned. That's why lead is used in all electrostatic precipitators (known as "scrubbers"), widely used by industry to control emissions.

SILENCE IS MORE THAN GOLDEN.

On a weight or thickness basis, lead is the most efficient commercial material for sound insulation. While it doesn't sound as romantic to say "silence is leaden", lead is a sound suppressor *par excellence*.

Lead's high density and sound damping characteristics are both big pluses. So is the ease of installation. Lead sheeting can easily be cut and nailed, stapled, or glued. Also, it's easily laminated onto building materials such as plywood, drywall, steel and aluminum.



LEAD. THE METAL WITH A SOLID FUTURE.

Transportation

Lead Acid Batteries are:

- Essential for today's automobiles and for future zero emission electric vehicles.
- Also used in electric wheelchairs, golf carts and other types of vehicles.
- Efficiently recycled

Energy Management

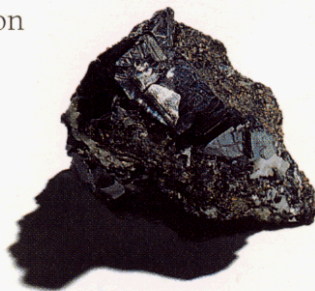
- Battery power helps electric utilities meet peak demand requirements and reduce costs.
- Even advanced wind and solar power systems rely on batteries for supplemental power.
- Lead is a key component in new energy-efficient lighting.

Health Care and Protection.

- Lead provides radiation protection for health care and nuclear industries.

Environmental Control.

- Lead is essential in advanced air pollution and noise control technologies.



For more information, contact:
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