

The Progress of Aluminum

Aluminum, youngest of the major metals, is moving from a robust youth to a rich and versatile maturity.

Already, in volume produced, it is the greatest of the nonferrous metals. Moreover, it is daily challenging the far older and larger-volume iron and steel in scores of uses traditionally filled by them.

Production in the United States multiplied almost tenfold in the 1940-1960 period, rising from 206,280 tons in 1940 to 718,622 in 1950 and 2,014,498 in 1960 — and expansion continues.

Added to domestic production are additional supplies from imports and the recovery of scrap. In 1960, this brought the total metal supply available for use in the United States to 2,612,000 tons.

One of the six producers of primary aluminum is Harvey Aluminum, whose headquarters are located in Torrance. Aluminum products using Harvey metal range from the "a" in aircraft to the "Z" in zippers.

Aluminum powers missiles, packages fractional ounces of pigment and freight-car-sized loads of machine parts. It helps hens lay more eggs and provides tough frames and skins for planes and boats.

It is cool, reflective wall of a skyscraper and the heat-holding roasting cover for the Thanksgiving turkey. Living room drapes and swimming pools, silos and fishing rods, inks and irrigation lines, beer barrels and power transformers — all these items and thousands more on the American scene are made of aluminum. What tomorrow's made-of-aluminum list will look like can only be guessed.

"We know only that it will be a much longer one," said Harvey Aluminum officials.

Aluminum's unique combination of properties makes it one of the most versatile of materials. Combined with small amounts of other metals, it has a family of alloys which extend its usefulness even further. While it is known best for its light weight — important in anything that moves or must be supported — aluminum has some alloys with the

strength greater than structural steel.

A high resistance to corrosion gives aluminum long life under a wide variety of exposures, with no applied protective coating. Its freedom from toxic materials makes it safe to use in the processing, packaging, cooking and serving of foods.

High electrical conductivity makes aluminum one of the two practicable materials for electrical conductors, and its high thermal conductivity makes it useful for many types of heating and cooling equipment. Aluminum is a good reflector of both light and infrared radiant heat.

Although it is employed as an alloying ingredient in certain types of powerful permanent magnets, it is by itself non-magnetic, important in many electrical uses. It does not emit sparks when struck, which means it is safe to use in explosive atmospheres.

Aluminum is available in many forms from Harvey, ranging from rod and bar to heavy forgings and extrusions. It can be readily worked into practically any desired shape by well-known metalworking processes. It accepts a wide variety of attractive surface finishes, involving degrees of brilliance and dullness, texture and color.

In most applications, two or more of its primary characteristics influence choice — for example, light weight combined with strength in automobiles, trucks, trailers, aircraft, missiles and freight cars. Attractive appearance and high resistance to weathering plus low maintenance requirements have led to extensive use in both residential and public buildings. Reflectivity, durability and light weight are important in roofing materials.

Excellent resistance to corrosion and high thermal conductivity are important in processing equipment for the chemical and petroleum industries. These properties, combined with hygienic safety, make aluminum desirable for food processing equipment. And in almost any application, aluminum's light weight reduces shipping and handling costs, adding another important ad-

Garrett's Life Forms Era of Space Progress

Garrett Corp. in its 27th year comprised another new era of progress in research and manufacture of space components and systems.

The success of Garrett's life support system in sustaining astronauts aboard Project Mercury's first flights into space made history, and brought the company's space capabilities into clearer public focus than ever before.

Garrett also was awarded a contract for a similar life support system—a three-man capsule being readied for a two-week trip to the moon and back to earth. The program is called Project Apollo.

Garrett is well into a three-year study of environmental control systems for future space vehicles under contract from North American Aviation for the Air Force.

Soon after the first Mercury shoot, Garrett received a new contract from Boeing Airplane Co. to develop a cooling system for Dynasoar, a manned space glider for the Air Force.

Garrett Corp. is composed of seven divisions and two subsidiaries employing 9500 people in operations which span the world.

From the wartime Boeing B-29, the first production ever pressurized, to Project Mercury's space capsule, Garrett's pressurization and air conditioning equipment, or related products, have been a part of every manned, high altitude vehicle of flight built in the U.S.

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As more users become aware of the full range and value of aluminum's properties and the economies it affords, markets for aluminum will continue to expand on a worldwide basis and its contributions to modern life will grow accordingly," said a spokesman for Harvey Aluminum.

1919 BUSINESS FIRMS

There were 1919 business firms in Torrance as of the first of the year. For the Torrance showed a 46.6 percent increase.

Builders End Firm; Start Two Others

Dissolution of the Grandview Building Co., one of the Los Angeles area's major home-building firms, was announced this week. Headed by Edward K. Zuckerman and Barney R. Morris, the firm in its 17-year history erected more than 10,000 homes in Palos Verdes, Burbank, Downey, and the Hollywood and Hollywood areas of southwestern Los Angeles.

Both principals are continuing in the building industry, with separate new organizations.

Zuckerman has started construction on Los Verdes Estates, with an initial 155 residents under way in Palos Verdes, to be followed shortly by another 195. He is also completing homes and remaining lots for sale in Grandview Palos Verdes. It was announced that William C. Kulow will be exclusive sales agent for all Zuckerman's peninsula activities.

In conjunction with developer Arthur E. Emunds, Zuckerman is also active in the San Fernando Valley, with the new Valley Circle Estates community being built in Woodland Hills.

Morris, heading the newly formed B. R. Morris Development Co., is concentrating his activities on the Palos Verdes peninsula. He has started construction of Palos Verdes Village, with Crest Realty Co. as sales agents.

Marathon to Roll

A ten-game marathon will begin to roll at Gable House Bowl, Torrance, March 2 at midnight. Entries to the World Open Classic at La Habra "300" Bowl will be awarded. Those pre-paid entries will go to one of every eight entries in the marathon. There is a limit of 40 bowlers.

Bowlers will roll ten games across 20 lanes, and use their handicap on two-thirds to 200. Men will compete against men, women against women.

The Garrett Corporation is proud to have its newest AiResearch Manufacturing plant in the expanding Torrance community.



AiResearch Manufacturing Divisions

HARVEY ALUMINUM is a major producer of metals serving manufacturers across the country. Products supplied by the company go into space with America's astronauts, under the sea in nuclear submarines, and into the sky in the most advanced jetliners. Buildings and bridges, automobiles and appliances, almost every industry today uses an increasing amount of aluminum & other metals from Harvey.

As Harvey Aluminum grows, the community also grows. With a continuing expansion program that constantly calls for new people and varied skills, Harvey Aluminum offers residents in the community the opportunity to work with a rapidly progressing company.

Why not link YOUR future with the growth of our community and Harvey Aluminum?

HARVEY ALUMINUM

A primary producer of quality aluminum in all alloys and sizes: Pig, ingot, rod and bar, pipe, tube, hollow sections, press forgings, forging stock, hand forgings, impact extrusions, electrical bus bar, rigid conduit, structurals, special shapes, light and heavy press extrusions, and other aluminum products. Related products in titanium, zirconium & steel.