

## Airframe Parts Of All Varieties Made at Longren

Aircraft companies which want airframe parts of nearly any size, shape, and kind, frequently call on the Longren Aircraft Co., 2756 W. Carson St., R. C. Stewart, chief engineer reported.

since its founding in 1932 is a "The company, in Torrance large producer of many air- plane parts, acting as subcon- tractor for many large aircraft firms and as a prime contractor in producing Navy missiles.

Many of the planes used for the nation's defense today— the B-47, B-52, F-84, F-87, and others—contain parts made at the Torrance firm.

### Hand Work Done

Although giant presses per- form many of the complex bending, stretching, and milling operations, considerable work is also done by hand on more intricate parts. Hand work is becoming more rare in most operations, Stewart said.

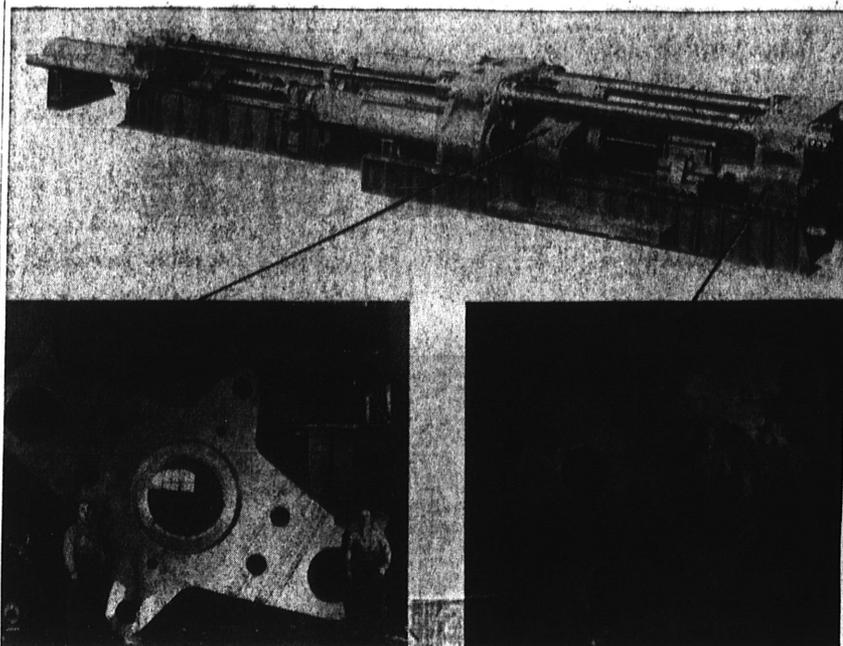
Machines of all sizes perform cutting operations, and specially designed instruments bend and stretch both internal parts, and the skin of the plane. Wing pods (tanks) are currently being produced for the Air Force.

Longren Aircraft was a pioneer in developing stress-forming skin for the aircraft. This skin becomes part of the airplane rather than fitting over it.

Operations at the plant even include a refrigerator for cool- ing parts before they are work- ed on and a hot bath of pure melted salt for nixing the met- als more workable. A variety of metals are used for various parts, ranging from aluminum to steel.

### Expansion Planned

The plant currently has a 7600 square foot working opera- tion on Carson St., but recently contracted for nine acres at



**BIGGEST EXTRUSION PRESS . . .** The biggest extrusion press ever built in the United States is scheduled to be installed at Harvey Aluminum Company's Torrance plant. In the lower pictures, workmen pose by parts of the 12,000 ton press. The upper picture is a 1-24 scale model of the press.

the Torrance Municipal Air- port to expand current opera- tions. The firm has 250 associa- ted or employees, who work under a profit-sharing plan. Hampden Wentworth, well- known aid enthusiast and world traveler, is president of the corporation, while Mrs. Went- worth is vice president in charge of public relations. Warren Krieriem recently was named vice president in charge of manufacturing and engineering.

### WHAT THEY MEAN

"Competition" and "compet- ence" have a great deal in com- mon as vital factors in making our economic system the best in the world where human as well as other values are con- cerned. Both words come from the Latin root, "competere," which means "to seek." The word "competent," which describes respected businessmen and crafts- men alike, comes from the Latin "competens," which means "to strive after together, to be qualified."

## Concrete Sawing Originated Here

One of the important industrial aftermaths of World War II—concrete sawing—originated in Torrance, Calif. In use throughout the nation on present-day concrete high- ways, airports, and other large areas of poured concrete, this process was developed to control cracking.

When freshly poured concrete sets up and dries, a shrinkage occurs and the slab cracks. In order to control location of cracking, a plane of weakness

must be installed. Before the origination of concrete sawing these planes of weakness, or joints, were formed by various hand methods . . . troweled approximately 1/2 inch to 3/4 inch wide, and after the concrete dried, were filled with an asphalt joint sealer. This not only left an unsightly joint but also made a very bumpy high way.

Now these same joints are sawed approximately 12 to 14 hours after the concrete has been poured and before shrink- age starts. The finished joint produced is level with the sur- rounding area, and is approxi- mately only one eighth of an inch wide.

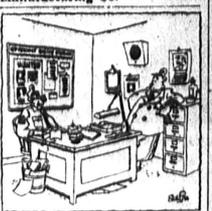
**Bumping Stopped**  
This type of joint eliminates all bumping, and is also desir- able because maintenance is practically eliminated.

Success of this project de- pended upon development of a diamond wheel suitable for rough, rugged work, and machinery to do the job. Felker DI-MET Segmented type dia- mond wheels were the result, along with a complete comple- ment of concrete-cutting ma- chines.

**Surface racks Eliminated**  
Nowadays, highway slabs are poured in one continuous strip. After a sufficient curing peri- od the slab is divided into sections by a series of cross cuts, usually made only one fourth to one-third the full depth of the slab. Nature does the rest. When pressures build up the slab cracks at its weak- est point, directly beneath the cuts. Pressures are released, surface of the paving remains undisturbed and you're never aware that a juncture exists when traveling in your new '55 automobile.

Almost all repair work in streets now utilizes concrete cutting in laying new pipelines, repairing sidewalks, installing traffic signals, adding ramps in curbs, etc. and, if you look sharp, you'll probably see the machines doing the job, pioneered in Torrance, developed with local research facilities by local residents, and sold to industry nationwide — by Felker Manufacturing Co.

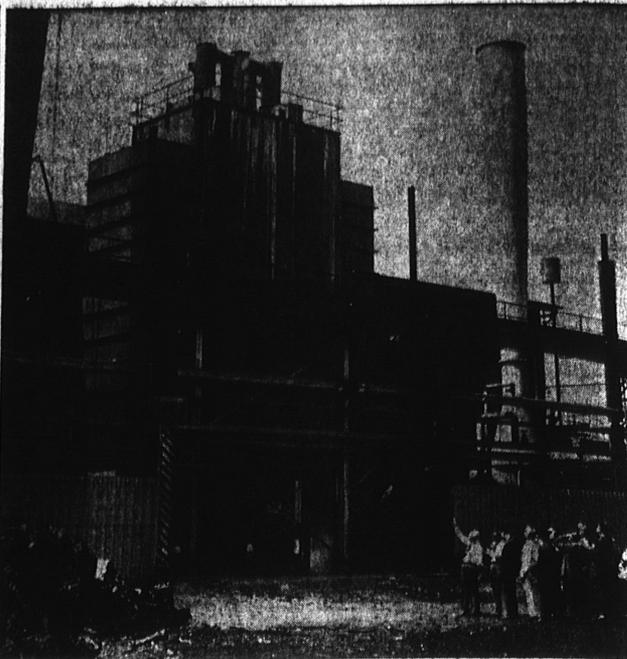
"Have you noticed how our ju- venile delinquency cases have dropped off since that Boys' Club opened down the street?"



**BANK STATUS**  
There were less than half as many independent banks in the United States in 1954 as there were in the year 1921.

**5-YEAR PLAN**  
India's second five-year plan includes the introduction of a television network not later than the year 1957.

**FOOD FOR THE NAVY . . .** Shown is the inside of one of the warehouses at the Torrance annex of the Naval Supply Depot, containing stacks of canned and bottled goods in store. Up to 800,000 pounds of dry and fresh provisions leave the depot each day, bound for Navy ships docked in the harbor.



**SMOQ MILLER STUDIED . . .** Scores of scientists from throughout the world annually visit the Torrance Works of the Columbia-Geneva Steel Division of United States Steel Corporation, to inspect the four large electrostatic precipitators installed on the outlets of each of the plant's four 60-ton open hearth furnaces. Above, C. S. Warner, superintendent of engineering and maintenance, shows visiting Western European scientists stack at the left, whose electrostatic precipitator has been momentarily shut off, allowing yellow pall to creep forth. Installed in 1951 as the first pollutant-control device of its kind in the world, the precipita- tors have been operated on a round-the-clock basis since that time.

## Western Steel Production To Continue High—Roach

Western steel production probably will continue high-level operations well into 1955, judging from the present business pattern, according to Alden G. Roach, presi- dent of U. S. Steel's Columbia-Geneva and Consolidated Western Steel Divisions.

"Prospects for the next several month appear to be favorable," Mr. Roach said. "Demand for some steel products now exceeds local availability. The general improve-

ment in business conditions of the past several months has shown its effect in steel opera- tions.

"Another significant factor in the steel production pattern," he said, "is the inventory picture. Large tonnages of steel consumed during 1954 came from inventories in the hands of steel users. These invento- ries reached a point during the year they could be reduced no further. As a result, increased steel supplies will be required to meet new manufacturing needs as they develop.

"Consumer resistance to carry heavier stocks is disappearing rapidly as the steel market tightens under the stimulus of better business conditions," he added.

Expansion of steelmaking capacity and modernization of plant facilities since the war have been major factors in helping meet the heavy require- ments for steel throughout the Western States, Roach asserted.

Production capacity has been considerably expanded in the West, and the area has shared to a large extent in United States Steel's expenditure of more than two and one-quarter billion dollars since 1945 for im- proving and modernization as well as building new facilities, he said.

**Meeting Requirements**  
"As a result," he said, "our plants are well equipped to help

meet the increasing needs for steel developing from the entry into the Western market of many new firms that manufac- ture products made from steel, as well as meeting the expand- ing requirements of existing firms. The new facilities that we have installed since World War II are among the most modern in the country. The prod- uct lines of our mills have been widely diversified and the new capacity that was devel- oped to meet war-time require- ments has now been adopted to serve peace-time markets.

"A major development under way is the construction of a new steel pipe manufacturing plant for Consolidated Western Steel Division of United States Steel in Provo, Utah. This new plant will produce electric weld pipe for use in natural gas, pet- roleum and water transmission lines, and will be located at the hub of a wide area of demand for such pipe. The plant, adja- cent to Geneva Works of the Columbia-Geneva Steel Division is close to a source of plates and coils used in pipe manufac- ture.

"In addition to this major new development, we will continue with our over-all improve- ment program to provide the best possible facilities for in- creased manufacture of steel in the West for use in the West.

"The Western States are an increasingly important market to United States Steel. Our goal is to meet the needs of the growing population here with steel products from our West- ern mills."

**Fourth Furnace Opened**  
A fourth basic open hearth furnace has been placed in operation at the Torrance Works of the Columbia-Geneva Steel Division of United States Steel.

C. C. Morgan, general super- intendent, said the fourth 60- ton furnace was lighted to meet an upswing in orders for raw steel stock.

The mill, which produces semi-finished steel, structural shapes, hot rolled bars and other steel items, will continue at a four-furnace level as long as the demand continues, he said.

Addition of the fourth fur- nace, which increases the plant's monthly steel output by about 4500 net tons, marks the first time the Torrance Works has operated at a four-furnace level since Nov. 1, 1953. The mill's new monthly production figure will be about 17,500 net tons.

Approximately 51 open hearth and maintenance employees have been hired because of the in- creased operations, bringing the total plant employment to about 850.

## Torrance Municipal Airport Offers Complete Aviation Service

The private flyer or the executive plane user is provided with every facility to make his flying convenient and safe at Torrance Air- port.

Collins-Dietrich, Inc., operators of this fine airport for the City of Torrance, operate a flight school, full Standard Oil fuel and lub- rication service and all other facilities for the accommodation of aircraft operators.

Other operators based at Torrance Air- port provide flight instruction, charter flights, complete repairs and aircraft sales and ser- vice.

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— See Torrance from the Air —

## WHAT'S DOING

R. S. Pyle, your Telephone Manager in Torrance

### More Telephone Equipment for Torrance

An addition of telephone equipment to provide for future growth has just been completed by Western Electric em- ployees here in the Torrance Central Office.

As well as assuring available telephone service to new- comers in this area, the addition of this equipment will also provide better service for our present subscribers, as calls which might have been delayed because of a busy condition of the FAirfax trunks can now utilize the new equipment, thereby relieving the congestion. Pacific Tele- phone plans ahead to assure adequate facilities and im- proved service for its customers constantly.

### Cable "doctors"—they roll out day or night

Fortunately, this scene isn't common. Tele- phone cables can usu- ally be fixed in day- light. But once in a while, on the quiet streets here in town, you'll see cable "doc- tors" taking care of an emergency at night. For along with police- men, firemen, and the like, telephone people help keep the night watch while the rest of the community sleeps.



Operators, testmen, and repairmen are on the job throughout the quiet hours. Indeed, one of the big values of your telephone service is that it never rests. Your telephone is ready to serve you whenever you need it, 'round the clock. Pacific Telephone works to make your telephone a bigger value every day.



**A calling card you can use again and again**

If you do much traveling, a Bell System credit card is just the thing for you. It's free. And you can use it to charge long distance calls from any Bell telephone and from most others anywhere in the country. Our business office will gladly give you more information about these handy cards. So why not

ask about one soon. Your credit card will make it even easier to keep in touch with home and make business calls at today's bargain long distance rates.