TECHNOLOGY REVIEW

June 1949

A SALUTE TO THE BRASS FORGING INDUSTRY

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Publication

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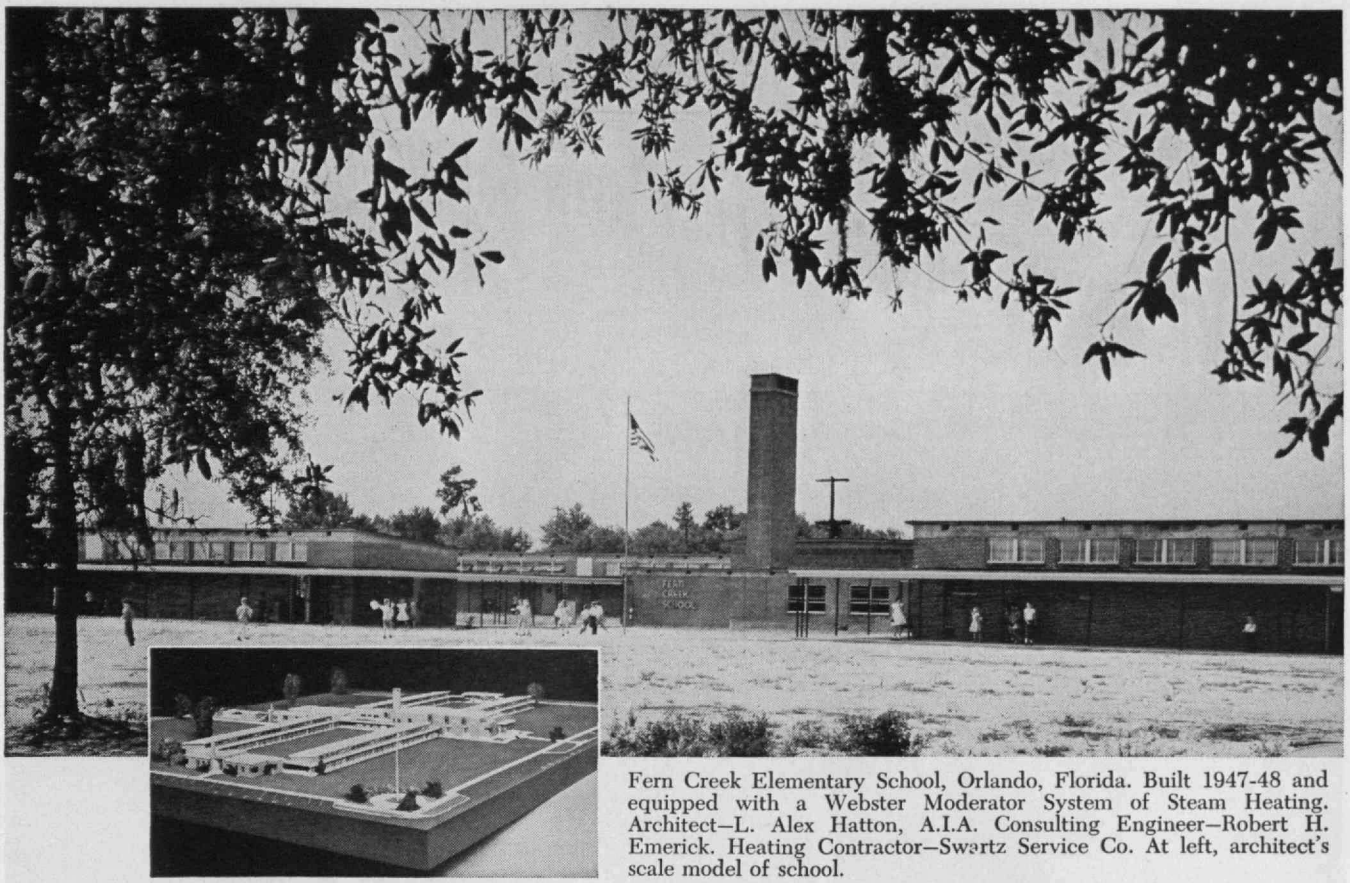

Fern Creek Elementary School, Orlando, Florida. Built 1947-48 and equipped with a Webster Moderator System of Steam Heating. Architect—L. Alex Hatton, A.I.A. Consulting Engineer—Robert H. Emerick. Heating Contractor—Swartz Service Co. At left, architect's scale model of school.

"...lots nicer than a big old school"

The Orlando (Fla.) Sentinel-Star recently asked a group of 9, 10 and 11-year-olds what they thought of Orlando's newest and most modern school.

A 10-year-old acted as spokesman. "It's wonderful," he said. "We think it's lots nicer than a big, old school."

The Fern Creek Elementary School is a source of pride to students, teachers and parents alike. Every detail in its construction is the last word in school planning.

...and it's heated by Webster Moderator System

Heating of the school is by low pressure steam from a central boiler room. A Webster Moderator System of Steam Heating provides the temperatures desired automatically, with every change in outdoor weather. Prefabricated Webster System Radiators are recessed in classroom walls. Webster-Nesbitt Unit Heaters are used in the cafeteria.

Although construction is the basementless type, piping is concealed. A ventilating system replaces the air in each classroom at the rate of 6,000 cubic feet per minute.

Features of the ultra-modern Fern Creek School include: gaily painted classroom interiors, audio-visual aids, bathroom facilities for each classroom in the first three grades, soundproofed ceilings. Each classroom opens on one side directly onto the 8-acre campus and on the other to a covered walkway which is accessible to any other part of the school.

Find out why modern steam heating under Webster Moderator Control is the first choice of leading school architects, consulting engineers and heating contractors. A Webster Representative will gladly furnish full details.

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WEBSTER
MODERATOR
SYSTEM
OF STEAM HEATING
"Controlled by the weather"

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A CHILD EASILY CARRIES 50 FEET WITH ONE HAND!

SPECTACULAR LIGHT WEIGHT . . small bulk . . ease of handling and storing . . these are outstanding features of SANDEE *Feather-Lite* Copolymer Garden Hose! In fact, it is about *one-third the weight of ordinary hose* yet gives full water volume. Here's the kind of gardening ease *and economy* you've long wanted. An extremely tough and *long lived* hose, that resists hottest sun, zero cold, greases, oils, alkalis. And, it won't mildew, rot, crack or peel! Fine brass couplings fit standard outlets and *won't pull off!* You can get it in 3 *permanent* colors . . Green, Red, Silver, with *structurally stronger* rib finish. SANDEE Garden Hose is nationally advertised, carries the Good Housekeeping Seal and a written guarantee. See it at your dealer's or write us.

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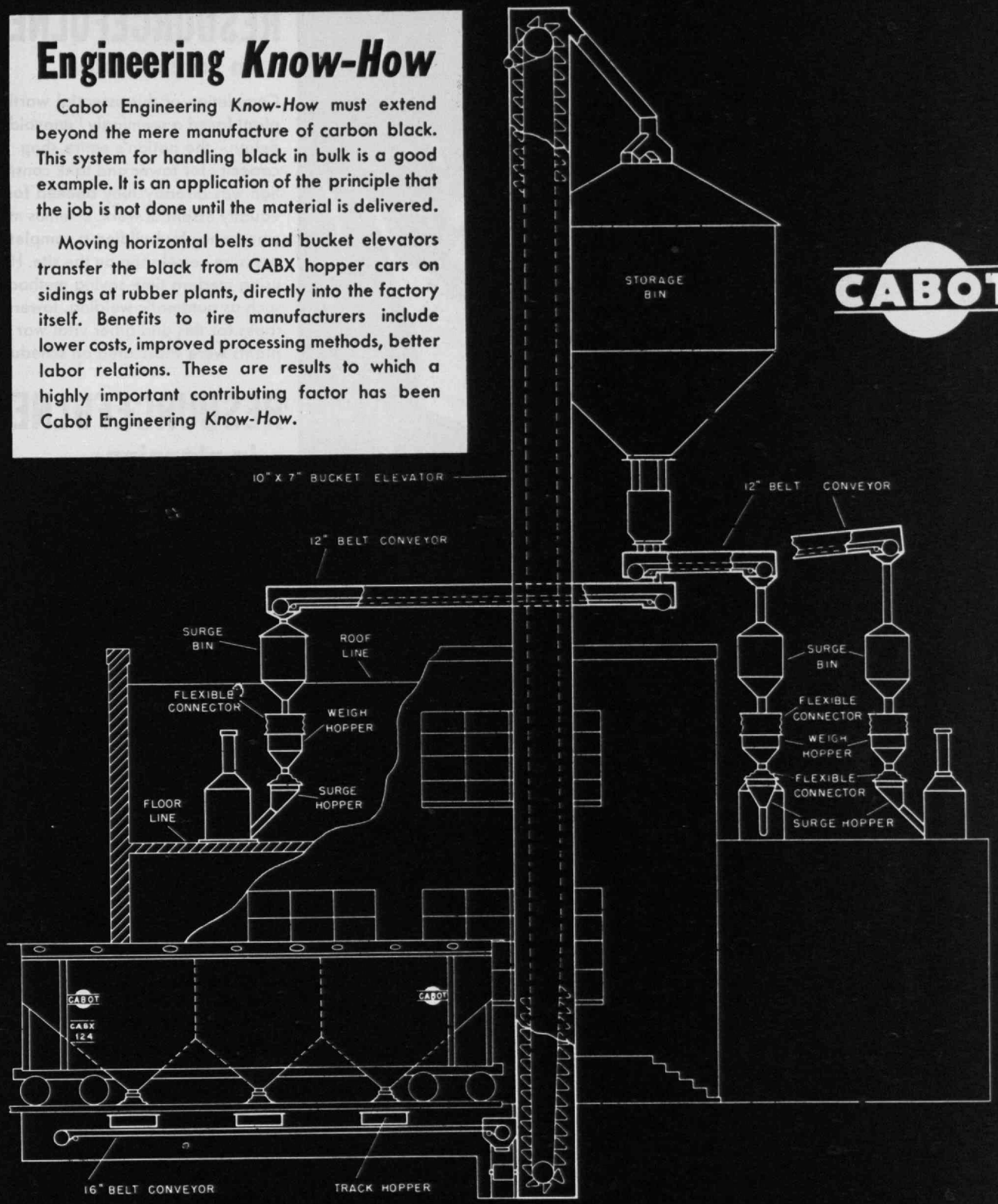
WORLD'S LARGEST CUSTOM EXTRUDERS OF PLASTICS

Engineering *Know-How*

Cabot Engineering *Know-How* must extend beyond the mere manufacture of carbon black. This system for handling black in bulk is a good example. It is an application of the principle that the job is not done until the material is delivered.

Moving horizontal belts and bucket elevators transfer the black from CABX hopper cars on sidings at rubber plants, directly into the factory itself. Benefits to tire manufacturers include lower costs, improved processing methods, better labor relations. These are results to which a highly important contributing factor has been Cabot Engineering *Know-How*.

CABOT



GODFREY L. CABOT, INC.

77 Franklin Street, Boston 10, Mass.

Resourcefulness in plant design and construction originates from two main sources: First, the company's tangible strengths . . . laboratory facilities, engineering organization, manufacturing and construction equipment. Second, the capabilities of the *people* within the company organization in facing problems that require ingenuity and innovation.

These two company resources working together give maximum performance, for the resourceful man can accomplish no more than his tools and techniques permit.

Lummus offers you the resourcefulness that comes from complete facilities at the disposal of minds with originality and broad experience.

RESOURCEFULNESS
in construction

Completion of this essential wartime plant faced a seemingly "unavoidable" delay:—the nation's entire shop capacity for tower and tank construction was already fully booked for equally essential work. Lummus met the emergency by building a complete pressure vessel shop on the site. Here, using modern time-saving methods such as automatic welding, towers and tanks for this and other vital war plants were fabricated on schedule.

RESOURCEFULNESS
in planning

The problem here was to boost the capacity of a 10,000 B/D topping unit to 25,000 B/D without a serious break in output. By ingenious advance planning, the change-over was made with *only 72 hours downtime*. Nor was it just a "lucky accident"—for Lummus had assumed responsibility in its contract for this 72-hour time limit.

RESOURCEFULNESS
in training

To erect this plant in an isolated foreign location, local native labor was the only practical labor supply. Yet most of these people had never held a tool or even seen a welding torch. Lummus sent supervisors and foremen picked for their training aptitudes, backed them up with modern visual-education methods, organized a training school. "Graduates" were ready to meet erection schedules. Quality of workmanship met every test.

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Economy
Fulfillment
Perspective
Teamwork
Technique

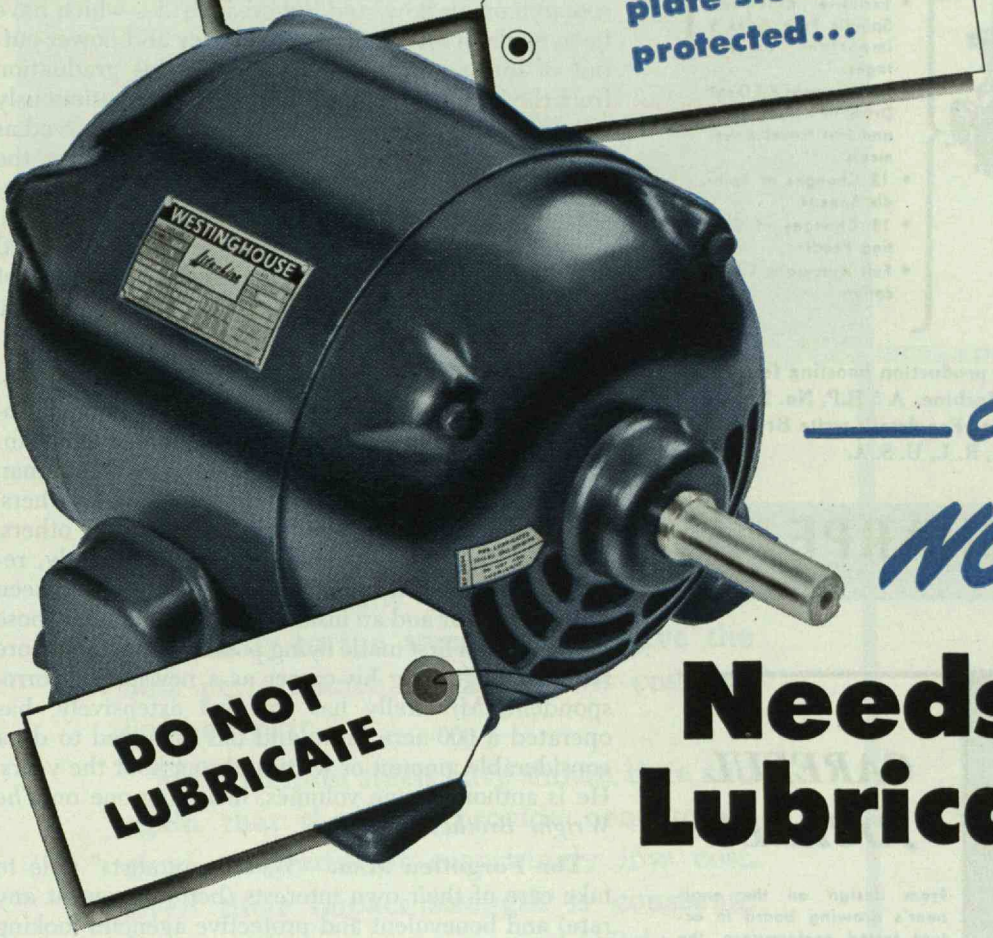
YOU CAN BE SURE.. IF IT'S

Westinghouse

up to 1/3 less space...

improved windings...

plate steel protected...



—and NOW...

Needs No Lubrication

Now . . . for the first time . . . you can install electric motors, or motor-driven machines . . . and forget motor lubrication.

Westinghouse Life-Line . . . industry's amazing, new, all-steel motor . . . now completely eliminates need for lubrication. Life-Line motors are equipped with sealed bearings, pre-lubricated with a more-than-ample supply of specially treated lubricant. Correct lubrication is assured . . . machine outages are reduced . . . motor-drive problems are simplified, since motors can be located without need for constant accessibility.

Added to Life-Line's plate-steel protection, improved windings and more compact size, *pre-lubrication* is one more important reason for starting to convert, today, to Life-Line power. Standard ratings available from stock—others on short delivery. Ask your Westinghouse representative for prices and delivery on your requirements, or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa.

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Westinghouse *Life-Line* Motors

THE TABULAR VIEW

Flight Progress. – In examining half a century of mechanical flight since the Wright brothers made their first successful sky ride at Kitty Hawk, S. PAUL JOHNSTON, '21, discerns (page 500) three clearly marked avenues of activity which have made possible today's modern aircraft; the invention of the airplane itself, research on air flow, and the great strides which have been made in increasing the efficiency and power output of airplane power plants. Since his graduation from the Institute, Mr. Johnston has been continuously identified with the aviation industry. He has served as editor of *Aviation*, co-ordinator of research for the National Advisory Committee for Aeronautics, research director for the Curtiss-Wright Corporation, deputy director of the aircraft division of the United States Strategic Bombing Survey, and since the end of World War II has been director of the Institute of the Aeronautical Sciences, Inc.

That's Wright! – Amplifying that phase of American aviation which, almost a half century ago, is centered about the first successful flights in heavier-than-air machines, is the story (page 504) on the human traits and characteristics of the Wright brothers. Whatever these two brothers may seem to others, FRED C. KELLY, who knew both men intimately, regards them as quiet, kindly, homespun men with a keen sense of humor and an insatiable curiosity about those factors which first made flying possible, and then more reliable. Beginning his career as a newspaper correspondent, Mr. Kelly has traveled extensively, has operated a 600-acre farm, and has managed to do a considerable amount of writing throughout the years. He is author of nine volumes, including one on *The Wright Brothers*.

The Forgotten Man. – With "capitalists" able to take care of their own interests (before taxes, at any rate) and benevolent and protective agencies looking after the welfare of "labor," the great segment of white-collar workers has been left to shift for itself. Indeed, from many points of view this portion of the nation's laboring force is truly symbolic of forgotten men. Their case is reviewed (page 508) by PAUL MEADOWS, Associate Professor of Sociology at the University of Nebraska, whose keen interest in social movements and the human aspects of modern industrialism, enables him to prepare, with authority, his most recent Review article.

Centennial Exposition. – When this nation was celebrating its centennial as a separate political unit, in 1876, faith and confidence in the future ran high. Vast areas of the West still remained to be developed and the country was regarded as having almost limitless resources. How the U.S. International Exposition of 1876 reflected its era is recorded (page 511) by E. H. CAMERON, '13, in the first installment of a two-part article. Head of the Technical Publications Division of Jackson and Moreland, Mr. Cameron has taken the study of engineering in the post-Civil War period as his avocation.