

Planning And Persistence Led To Some Goals

Take some ambition, fire it with determination, and it will put people more than half-way on the road toward materializing their goals in life.

Clyde W. Beaver, son of Mr. and Mrs. A. C. Beaver, is typical of those who set goals and reach out to attain them through work and planning.

After graduation from high school, Clyde served four years in the U.S. Air Force. Back home, he went to enroll in Clemson College, where he earned a BS degree in education with a minor in industrial management.

He attended Clemson under the GI Bill, but with a family of four—and later five—he had to work part-time. Mrs. Beaver, the former Barbara Putnam, also worked to help support the family.

The Beavers now live in Spartanburg, where Clyde is a claims adjuster for Nationwide Insurance. His mother recently marked her 25th year of employment in Weaving (synthetics). His father retired from Twisting (synthetics) in 1954, after more than 19 years on the job.



• Mr. and Mrs. Beaver with their children: Alan Wesley, 8 years; James Dean, 4; and Lizabeth Diane, 2.

Feb., 1961 **Firestone NEWS** Page 4

INDUSTRIAL ENGINEER

He Helps Industry To Achieve In Space Age

His history goes back to the Stone Age and the development of the wheel. His lifework is surrounded by centers of gravity, decimal equivalents, densities, differentials, integrals and mathematical formulae.

Among his operating tools are slide rules, French curves, micrometers, triangles, dividers, ruling pens, compasses and protractors.

His assignment today is to use his knowledge and skill to help American industry achieve in the age of space. His title: Engineer.

At Firestone, it is the engineer's job to be alert to the new and improved methods of manufacturing outstanding products in rubber, textiles, plastics, synthetics, chemicals, and metals—the Six Fields of Firestone.

Aside from their challenging industrial task of "making the best today, still better tomorrow," Firestone engineers carry the responsibility of helping to maintain American superiority in technology.

National Engineers' Week

Each year in February, during the week of George Washington's birthday, this country observes National Engineers' Week. It is sponsored by the National Society of Professional Engineers and by local organizations of professional engineers.

There are six basic types of academic engineering at work in Firestone's major fields of manufacturing. These are agricultural, chemical, electrical, general, industrial and mechanical.

But, since many technical jobs are peculiar only to the rubber industry, Firestone has created a number of other engineering positions for which colleges and universities do not usually educate students. For these specialized engineering assignments, the formal education of employees is supplemented with special technical training programs and on-the-job supervision.

For example, in the tire engineering and development department, trained engineers become tire design engineers, tire construction engineers, tire test engineers, textiles and adhesives experts, process engineers and technical service engineers.

The same is true with the manufacture of products other than tires. Trained engineers are often assigned such jobs as methods engineers, production planners, process control engineers and quality control engineers. Advancements to positions as general foremen and department managers are not unusual for these engineers.

Some Are Researchers

Not all engineering at Firestone is connected directly with the manufacture of saleable products.

The first stage in development of most products usually is in research laboratories, where chemists, physicists and engineers attempt to translate theory into actuality.

Since Firestone's basic products are of rubber, men in research are expected to discover and develop the many yet-unknown applications of natural

rubber and to study the countless aspects of synthetic rubber.

When a new application is discovered by the scientists, chemical engineers conduct a series of tests in a "pilot plant," Firestone's name for simulated full-scale production. If the testing program is successful, the new application takes its place in the long list of Firestone products.

Chemical engineers also play an important part in developing Firestone plastics, textiles, metals and petrochemicals. Research and development, and production are but segments of Firestone's engineering operations.

Some Work Behind-the-Scenes

Somewhat behind-the-scenes are the men assigned to the general engineering department, who are responsible for designing and planning new plants and new product machinery and remodeling and expanding older plants and equipment.

Mechanical engineers, for example, are called upon to install and maintain factory equipment. Industrial engineers often advise on the procurement of new equipment. They design and equip the company's plants all over the world.

Electrical engineers in this department install and maintain electronic systems and equipment. And maintenance keeps the production machine running smoothly and productively.

Other engineering functions are in the industrial relations department, where assignments include methods and standards, safety, and job evaluation.

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February: Gateway To Spring Season

SOME
TRAVEL
NOTES

Winter in the Carolinas is enough to add tang to the outdoors. But by the time February arrives, the sun is beginning to crowd the cold season right out of the picture in play areas and along the coast of the two states.

On a brisk February day, the sun can be warm enough for "shirtsleeve" golf and other outdoor recreation. And camellias blooming at this time of the year in eastern sections of the Carolinas can make winter seem yesterday.

In the North State alone, this is the time for a lively calendar of attractions for the Firestone traveler, reminds the plant recreation department. It posts this note:

Golf and horseback riding at resorts, hunting for many species of game birds and animals and exploration of the seashore and mountain playgrounds are seasonal specialties in North Carolina.

Fishing is year-round, with no closed season on any species of salt or fresh-water fish except mountain trout—and that season opens in April. Oceans, sounds, ponds, rivers, inlets, lakes and streams yield a variety of game fish. Some 30 different species of salt-water fish are caught from piers, beaches and boats along the seashore.

Side Trips Into History

Bentonville Battleground, Fort Fisher and Fort Macon are among the historic sites which, with events from coast to mountains, are re-telling North Carolina's story of the War Between the States, during the nationwide Civil War Centennial (1961-1965). It is the story of a state which contributed 125,000 men to the Confederate cause, was scene of 11 battles and 73 skirmishes, and led the South in blockade running. The Battle of Fort Fisher was larg-

est land-sea action of any war up to 1865, and cut off the blockade runners which were the "lifeline of the Confederacy."

The Battle of Bentonville was the last major Confederate engagement of the conflict. These and dozens of other NC historical sites and restorations are described in "Historic North Carolina," illustrated booklet which is yours free from State Advertising Division, Department of Conservation and Development, Raleigh.

For You: These And Many More

An abbreviated rundown of outstanding events in February: Annual Dog Show, Fayetteville, Feb. 15-17; Fine Arts Festival, Raleigh, Feb. 16-March 1; Holly Inn Lawn Bowling Tournament, Pinehurst, 20-22; Sportsmen's Motor Boat and Vacation Show, Charlotte, 20-26; American Camellia Show, Whiteville, 25-26.

They're in March, but belong in the seasonal list: Ringling Brothers Barnum and Bailey Circus, Charlotte, March 1-5; Hampton Fisheries Museum opening, March 1 (through Oct. 31); Atlantic Coast Basketball Tournament, Raleigh, 2-4; Garden Club Camellia Show, Fayetteville, 4-5.

Methods Manager On Committee

James Cooper, methods-standards manager at Firestone, is a member of a five-man committee chosen to make nominations for new officers of the Gaston County Industrial Management Club. Officers will be elected in March.

Sponsored by the YMCA, the IMC is made up of management people from textile mills, machine shops, transportation firms and other businesses.



Into An Eternal Tomorrow

To Martha Roberson Hill, Death was only an old door opening upon the dawn of an eternal Tomorrow. When shackles of time and space were lifted last December 22, she was released for richer, fuller service Over There. Had she sojournd here eight more days, she would have spent 81 years on This Side of the River.

She and her husband, A. E. Hill, had marked their 60th wedding anniversary last October. Then, the two of them were the last remaining charter members of Firestone Wesleyan Methodist Church.

Besides Mr. Hill, she left a daughter, Mrs. W. A. Johnson of Twisting (Mr. Johnson, also employed here, works in Spinning); a son, the Rev. J. Paul Hill of Salem, Va.; a sister, Mrs. C. E. Hallman of Kannapolis; and several grandchildren and great-grandchildren.

Engineering Thru The Ages

Military engineers were long the only ones to whom the title "engineer" was applied. In 1802 the U. S. Military Engineer Corps was established with one engineer and two assistants.

In 1823 the first professional engineering society was formed in London, and was known as "The Institute of Civil Engineers". Rensselaer Polytechnic Institute at Troy, New York, was the first American engineering college, founded in 1824.

The word itself is a 16th century development from the term "engine". An "engin-er," according to the Oxford English Dictionary, is one who contrives, designs or invents.

In 1605 Ben Johnson, the English playwright, used the word "inginers." By 1635 the term had acquired its current spelling, though used until recent years in a military sense only.

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