

DECEMBER 1972

CONCRETE PRODUCTS

The leading publication serving ready-mix, block, pipe and precast-prestressed concrete producers





President Rodney Smith (seated) confers with company founder David Smith.



Two-year-old plant is located on 13-acre site.

Smith Cattleguard Co. Gains Prominence in Precast Field

Starting out with just one item—concrete cattleguards—this Virginia firm now has versatile product line and yearly sales topping \$1 million

by E. E. Halmos

The soft, easy accent and manner of speech of rural Virginia is a deceptive cover for a vigorous young man's company that has sprouted in the rolling green cornfields of Midland, Va., some 50 miles southwest of Washington, D.C.

Smith Cattleguard Co. started—and has stayed—with a farmer's knowledge of his own and his neighbors' needs, and a farmer's ability to "tink-

er up" nearly anything that may be needed to make something work.

Today, some 12 years since its founding in a machine shed behind the Smith family farm, the company has 26 full-time employees whose ages average about 25 years. The company president, Rodney I. Smith, is 33. In fact, the oldest member of the organization is the founder David G. Smith, 67, now vice-president and still an active farmer, who says his principal function is to act as a balance-wheel to the enthusiasms of the younger men.

From a start with less than \$4,000 in capital expenditure (most of which went to buy a truck), the company has experienced a steady 30 percent per year growth to a peak of about \$600,000 gross in the last year, and expects to top \$1 million in less than two years. A 10,000 sq. ft. plant, built less than two years ago on the local "main highway" a half mile from Midland (a general store, gas station and post office) provides under-cover working areas and will soon be expanded by another 8,000 sq. ft.

Products still include the item that launched the enterprise—the rein-

forced concrete cattleguard (a one-piece item which consists of a series of concrete ribs that form a grating that cattle won't cross, hence eliminates need for gates). With other farm-oriented concrete products, these still account for about 20 percent of gross business, and are sold in 17 states east of the Mississippi River (some through franchise operators). The mainstay, however, is an item that has been in production only a relatively few years: a precast, three-piece, heavy-duty vault for use in underground installations by electric, gas and water utilities.

There is an increasing line of other products: Electrically-heated watering troughs for stock in winter; stairways for new townhouses; heavily reinforced concrete beams for Washington, D.C.'s new subway system; and most recently, concrete median barriers for a city freeway project.

The idea, according to the Smiths, is simple enough: Make good products, guarantee them unconditionally, and stay with things that "everybody else isn't making." Then back that idea with a firm belief in advertising, the ability of almost every man (almost all are local, farm-raised youths)



Firm's original product—and still mainstay of business—is the concrete cattleguard.

to do nearly anything required, a very strong team spirit that is colored by close ties with religious beliefs (most company officials are members or officers of the Church of the Brethren)—and the result is a combination hard to hold down.

The company had its genesis some 12 years ago, when David Smith—needing cash to supplement income from his 95-acre farm—took up his carpenter tools to build such things as polebarns for neighbors. On one of these projects, the new barn was located at the end of a long lane that crossed several fields. Smith got increasingly annoyed at the need to stop, open gates, drive through, close gates, several times on each trip to the site. The owner agreed that the procedure was a nuisance but added that wood cattleguards rotted, and even pipe rusted and bent out of shape, soon needing replacement.

“Why not make one of concrete?” asked Smith. “If you can get me one,” said the neighbor, “I’ll pay for it.”

So David Smith went home that evening, cut a couple of trees in his own woodlot, took them to a local sawmill to have them cut with tapered sides, placed them in a wood form he had put together, ordered some ready-mix concrete, and made his first cattleguard.

He sold it, as agreed, for \$140. Neighbors saw the results and ordered guards for themselves. In the first year he sold 12; in the second, 60. Now, yearly sales run about 800. Other farm-oriented products like the heated stock-watering troughs followed.

Within six months, son Rodney,



Overall view of main production area.

then 21, joined his father to take over sales and direction of the company. A believer in advertising, his first moves included advertisements in local farm journals (later in national farm publications). It worked, as reflected by increasing sales and interest, and increasing recognition of the company as a quality concrete products producer. Today, supplying formwork and know-how, Smith Cattleguard has franchise operators in Gainesville, Ga. and Lexington, Ky. and is actively building up a network of franchises that it hopes will spread as far west as Missouri and Texas, south to Florida, and northward as well.

Meanwhile, other developments were coming along. There was a request from the Virginia Electric Power Co. (VEPCO) for the heavy pre-cast vaults it needed for underground power installations. From VEPCO’s requirements, Rodney Smith drew up plans for the essentially

three-piece (slab, sides and top) vaults (in several sizes and configurations, each with tongue-and-groove edges for tight fit) now manufactured; and with the help of a local welder, made up the steel forms required and began to produce them. Gas and water utility companies found the designs (which Smith had now trademarked as “Easi-Set”) adaptable for their needs. Growing reputation and knowledge led to other products—curved stairways for a housing development in suburban Virginia, subway beams, and finally median guards for Washington’s elevated Whitehurst Freeway at the edge of the Potomac River.

A company by-product has been the design of a frame-carried lifting hook for the company’s two flat-bed trucks, with outriggers to give stability when loading or unloading the heavy concrete items. The Smiths were unhappy with their first truck-mounted



Concrete mixer (1 yd.) is fed by hand-pushed hopper which is charged from bins.

Bucket handled by bridge crane holds concrete for big utility vault pour.



Smaller forms are located in this section of 10,000 sq. ft. plant.



These forms are used to cast covers for smaller utility vaults.



Herbert Holmes is general manager and chief personnel handler.



Other company products include underground vaults.

Biggest order to date were these pre-cast median barriers installed in nation's Capital.



job crane, a type used for off-loading septic tank components, because of the lack of stability when the load became unbalanced. So they made their own, including all hydraulic drives to eliminate potentially troublesome and dangerous sprockets and chains, and ease the job for the operator.

The company uses its own two flatbed trucks, equipped with the lifting rig, for relatively local deliveries; its own trailers, pulled by a contract hauler, for longer hauls.

With business booming, it was time to move out of the converted machine shop to the new plant, some two miles away. Designed by the staff in large part, the L-shaped, steel-covered building is another example of adaptation to specific uses. In its short wing, the building contains three two-story-high aggregate bins, and a very-much homemade concrete plant. The bins are fed by a conveyor belt from a radial stacker into which trucks can dump their loads. The conveyor itself is mounted on a wheel-equipped carrying frame, which can be easily moved so that the conveyor feeds the desired bin, depending on the material being unloaded.

Inside, the concrete plant consists of a rail-mounted (moved by muscle power) hopper that passes under the bins, and moves forward to charge a 1 yd. CMC 28S mixer. This level-discharge mixer, in turn, unloads into a 1 yd. bucket which is lifted and moved by a bridge crane (Robbins-Myers, 7½ ton) that can reach any part of the manufacturing area. A jib crane (Wright, 2 ton) at one end of the plant reaches smaller forms and work areas.

There are no specialists among the work crew. Every man can manhandle concrete, trowel, set steel, or nearly

anything else that needs to be done, and does it with a will. Wages are good, and the company provides a full line of benefits—retirement, sick leave, generous vacations, and health insurance. At staff level, there is also a bonus plan based on profits and volume, and the company pays tuition, travel and textbook expenses for officials who wish to continue their schooling either in general or particular subjects.

Rodney Smith remains the chief designer of forms and products and has become the "R&D" man of the company, restlessly exploring new avenues. Lately he has also become a traveler, moving out to areas where the products are sold and used, looking for franchise agreements and evaluating new product lines.

In the plant his right hand man is 25-year-old Herbert F. Holmes, now general manager, who also conducts training classes for all the workmen and handles personnel management. Shop foreman is 23-year-old Thomas O'Byrne. Dan Miller handles traffic and purchasing. The latest staff addition, in a new position, is Roark Gallagher, who is about to take to the field as sales manager, after a thorough indoctrination in doing almost everything there is to be done around the home plant.

The business is growing fast, and that is good. But nobody seems to want it to get so big that the present team spirit is downgraded, or so big that it will not be possible to live within two miles of the work, still in the greenery of the Virginia countryside; or give up the local camaraderie of church affiliation, bowling leagues, softball games and participation in the activities of the volunteer fire department. □