

INSTANT SHADE TREES...

TEXAS STYLE

By ALBERT H. KORENEK

ALTHOUGH mechanized moving of trees grows more common and popular each year, few realize the original development of Vermeer-type hydraulic diggers grew out of a classroom assignment and years of home shop experimentation.

After returning from military service in 1953, I went back to college and began night school graduate studies at the University of Houston. One class assignment was to research some type of small business and to make recommendations for its improvement or expansion. Since I grew up on a farm, a report on a business relating to some type of farming seemed most interesting. My father had sold native oak trees from our farm and I had grown trees from acorns, so I chose to do a study of one of the largest tree service companies in Houston, Tex. This company hand dug and transplanted sizeable quantities of large trees all over southern Texas. One thing difficult to understand was the company looking for trees and hauling them from as far away as Mississippi and Louisiana. I immediately saw the possibility of growing trees locally which would be close to market and save "hunting for trees" several hundred miles away and expensive hauling. The ten-page report yielded a good grade and, more importantly, it sounded so convincing that I soon began planting trees in my spare time in anticipation of some day being in the tree business.

With initial plantings made and trees growing, it wasn't long before I confronted the hardest part of business in large trees: the digging and handling of the large ball of earth. In 1962, I began building a model of my dream tree digger in our old farmhouse attic. This first model was built of plywood with four flat blades forming an inverted pyramid-shaped ball. After completing the model, I tried to hire Bill Peltier, a Danbury, Tex. welder and fabricator, to build a machine from the model. He was too kind to laugh at me, and refused to build the machine saying I'd only be wasting money because the idea wouldn't work even if built.

This idea laid in limbo for two years and then while recuperating from surgery, I had lots of time to mentally redesign and rebuild my "Dream Machine." With a new round blade design and a new model, I went back to Peltier and showed him how well the little model worked. He still wasn't completely convinced that the "gizmo," as he called it, would work. However, after much assurance that I would pay him for his efforts even if the machine didn't work, he agreed to build the machine in his spare time if I'd be there to help.

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I started collecting materials and ordering hydraulic cylinders, valves, pumps and hoses in January, 1965. By the end of February we started welding. After many trials and frustrations, on June 26, 1965, we finally dug our first tree — a four-inch caliper live oak — with the new hydraulic tree spade. Thus the "Texas Tree Shovel" was born. Although the operation was a success, so to speak, this first patient died. Further improvement of techniques gave good tree survival and the next year was spent moving trees in Brazoria County, Tex., on a part time basis.

At the 1965 Texas Association of Nurserymen Convention in Houston, I met Ralph Kemna of Minneapolis, Minn. Kemna had traveled the country extensively selling specialized equipment to nurserymen and was well aware of the need for mechanization in the industry. He encouraged me to show the machine at the International Shade Tree Conference the following year at Cleveland, Ohio. During that convention, I first became acquainted with Carl Boat, vice president of sales for Vermeer Manufacturing Company of Pella, Iowa. In the winter of 1967, a more polished version of the machine was taken to the Landscape Contractors Convention at Dallas.

After the convention, several people from Vermeer Manufacturing Company, including Boat, Carl Van Roekel, and Garry Vermeer, came to Fort Worth to watch us move large pecan trees in an experiment with Dr. Benton Storey, the pecan expert from Texas A&M University. This method of transplanting normally difficult-to-move pecans was a decided success. We transplanted 35 five-to-six-inch diameter pecans and two years later still had 100 percent livability, with many of the trees bearing nuts the same year they were transplanted.

Garry Vermeer was impressed and immediately offered to manufacturer and market the tree digger under our patent when finally issued. A contract with Vermeer Manufacturing Company was signed in 1967 to build and sell a version of our hydraulic tree digger. Patent Number 3,364,601 was issued to Albert H. Korenek on Jan. 23, 1968, and it is under this patent that Vermeer builds their "Tree Spade."

My tree production and sales company was known as Instant Shade Trees until August, 1967, when it incorporated as Instant Shade Trees, Inc., a Texas corporation, and is still operating as such. We presently have 25,000 oak trees from two to ten-inch caliper located on three tree farms totaling 75 acres near Alvin, Waco, and Houston, Tex. In our present operation we have ten hydraulic tree digging machines varying from a 14-inch diameter ball, 12 inches deep, up to a six-foot diameter ball, four and one-half feet deep and weighing 12,000 pounds.

The largest tree we have successfully moved is a 16-inch caliper live oak, 40 feet tall which was done with a 13-foot square concrete box requiring a 50-ton crane to handle. The greatest number of trees dug for a single job was 2,035, two- to four-inch caliper, which were dug over a five-week period for a nursery chain and delivered to stores all over central and western Texas.

We are now mechanically boxing trees where in our nursery and have boxed 89 three-inch caliper in a single day. We have balled and burlapped 105 trees in a day with our crawler-mounted, 36-inch balling machine and have transplanted up to 14 of the six-foot diameter, six-ton ball trees in one day. Our largest big tree job to date is the Plaza del Oro development in Houston for Shell Oil Company where we planted 745 live oaks up to five-inch caliper and still have 600 more to plant in the next two years.

This past spring we transplanted 442 large native trees such as pine, magnolia, sweet gum, oaks, yaupon holly and viburnums on a project at Lake Conroe north of Houston. The developers were dissatisfied with poor livability of native trees transplanted earlier by others with smaller equipment. With our flat bottom ball and the extra depth of soil in proportion to the ball diameter, the trees have performed well. In our part of the country, we recommend 12 inches of ball diameter to one inch of caliper for moving native woods trees. With this formula we find that less than one percent of the trees moved are lost, provided they are properly maintained after transplant. Nursery grown materials are more adapted to transplanting and we have moved hundreds of 11- to 12-inch caliper oak, pecan and pine

trees with our equipment that are doing extremely well. Care after transplanting is extremely important on trees this large.

Our out-of-state business is expanding and we have dug trees with our equipment in Ohio, Michigan, Illinois, Tennessee, Mississippi and Georgia, in addition to jobs all over Texas. At present we have two diesel rigs capable of cross-country travel and are ready to go anywhere in the continental United States where trees need transplanting with this highly-specialized equipment. Although Vermeer Manufacturing Company has done an excellent job in supplying mechanized digging tools for an industry which needed more mechanization, I feel equipment for the large tree moving business is still in its infancy. With public concern of ecology and the present environmental movements, each day we are confronted with requests to move larger trees that are beyond the capabilities of even our super large equipment. I personally believe that with further developments we will be able to move 12- to 24-inch caliper trees on location almost as easily as we can move eight- to ten-inch caliper trees today.

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