



40 YEARS AGO

Three courses at a time

More than 40 years' experience has taught Maddox Construction Company the secret of simultaneous golf course construction.

By JOE DOAN

These aren't a bunch of roustabouts in an oil field, but Maddox Construction men getting ready to drill for water at Des Moines G&CC, which they are now building.

The dramatic post-war expansion of golf course construction is reflected in the activities of Maddox Construction Company, St. Charles, Ill. During the 20 years since World War II the company has built some 40 courses east of the Rockies from the Canadian border to the Gulf of Mexico.

The recent three-day Independence Day weekend was a welcome one for the owners of Maddox Construction Company. For several scorching weeks preceding it, the Maddoxes—Charles, Sr., Charles, Jr. and Bill—were scattered between Des Moines, Ia. and Warren, Ohio, building golf courses. They agreed that it may be the hottest three weeks they ever endured, but Charles, Sr. remarked: "We say that about this time every year."

Although they own the company, the Maddoxes don't retire to an air-conditioned shed and direct construction activity from there. Each describes himself as "a working foreman," who toils in the sun with his men. That goes for Charles, Sr., who has been in the course-building business exclusively for 28 of the last 43 years, and before that was a golf course sub-contractor.

If you were to look up a Maddox at one of their construction sites, you would have to walk or ride across two or three fairways of turned-up loam to find him driving a big earth hauler, jockeying a tractor or threading a ditching machine along an avenue of stakes. Each owner is checked out on every piece of equipment used in course construction work.

At the moment, Charles, Sr. is building

GOLFDOM





The three Maddoxes are shown in booth at recent GCSAA annual convention in Kansas City. From left: Chuck, Jr., Charles, Sr. and Bill. Each is in charge of his own building team.

a course in Frankfort, Ind.; Chuck is working on Avalon Lake CC for the Warren Chamber of Commerce, and Bill is supervising operations on an 18-hole layout for the Des Moines G & CC. Each has a crew of about 15 men and about \$350,000 in construction equipment at his disposal. All are racing to beat a mid-September seeding deadline. For the last eight or 10 years, the Maddox firm has had three jobs going simultaneously, but seldom do the three men collaborate on the same project.

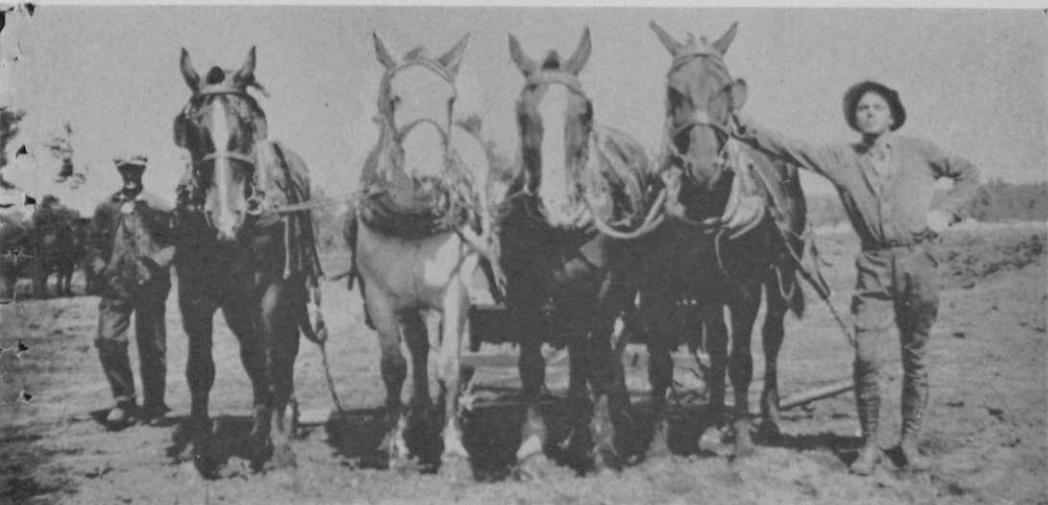
The project the Maddoxes remember most vividly, if not fondly, is the Lake-

wood CC course north of New Orleans (GOLFDOM, June 1966, p. 40). All of them had a hand in building it, because it was a job that ate into 22 months of working time. Something like 90" of rain in one year, and a site that is below sea level conspired to keep equipment mired during the early part of the construction period. However, in the second year, the weather behaved admirably and the Maddox firm was able to push through and complete what is now regarded as one of the South's finest courses.

Generally, the Maddoxes like to think that running time in building any 18-hole

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Rugged muleskinners of the '20s direct horse team in scraping operation.



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course is a little less than a year. This takes in anticipated weather setbacks and all the other factors that may arise to upset the timetable. There are plenty of the latter, because a course builder just doesn't turn those huge earth haulers with their 20-cubic-yard capacities, and those big cats loose to ram a job through. Many times it is necessary to keep crews on a six-day week to stay on schedule.

With a year to complete a course it seems that a builder never should be pushed against a deadline, but right now work is a little feverish, because all three courses have to be seeded before late September so that greens can be stolonized by mid-October. These months, of course, are the Northern deadlines. In the South, it is April 1.

The three-day July 4th respite was like two weeks in Bermuda for the Maddoxes. It was good for Charlie Maddox and his sons to get away from the steady drone of tractors and bulldozers and breathing pulverized loam, even if they were to spend one of their free afternoons talking about golf construction.

The Maddox Construction Company is nearly 100 years old. It was founded in 1870 by the elder Maddox's grandfather, Asa, as a road-building company. In 1899, Asa got into golf construction when he contracted to grade fairways for a club in Cincinnati. His son, Eugene, was in charge of this job, and for the next 20 years or so, Eugene divided his time between road building and sub-contracting golf course projects. Eugene's son, Charlie, now the senior member of the



This Athey tractor, used by Maddox, was on of the first in golf course construction.

Maddox Company, started working for his father at the end of World War I.

In 1923, the firm divorced itself from road building and became exclusively a golf course construction company. It was to remain that for eight years. Then, when the Depression racked the economy and course building came to a halt, the Maddox outfit was forced to scramble for any kind of contracting work it could get. Luckily, Illinois and Texas enjoyed oil booms in the 30's and the Maddox firm got enough work in the oil fields to remain solvent. During World War II, the company specialized in government building contracts.

Charlie Maddox went back into golf construction in 1946, taking his two sons with him. So, the company has known two eras, separated by 15 years, in which it has built golf layouts. During the Depression, Maddox, Sr. actually never left the golf business. From 1925 until 1931 he was part owner and helped operate

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Equipment looked like this 40 years ago. Cat 30 is at left, Fresno scraper at right, Fordson is in background.

*bent
grass*

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NOER TRIBUTE

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ences than any other expert. He popularized colored photographs as lecture material and as progress reports and in making photography a tool of course management showed superintendents how to save time and money and have available data for expert studies and recommendations. To Noer, more than to any other man, today's standard of golf turf is due. He received the USGA Green Section award and was honored by golf course equipment and supply companies that established the O. J. Noer Turf Foundation financing research and scholarships. The Golf Course Superintendents Association at its 1960 annual meeting presented a program feature of his career, illustrated by numerous pictures.

He was one of the best technical writers in any field of applied science as GOLFDOM's staff and its readers can testify from the handling and utilization of many valuable articles he wrote for GOLFDOM. He was one of the greatest all-around men in golf business. A comparative appraisal of Noer's service to golf would show him as having contributed more to enjoyment and better scoring in the game than any of the celebrated players.

Among Noer's innumerable valuable services to golf was his preservation and development of the strain of bent which, after a devious history ranging from the present site of the Pentagon building at Washington to Beechmont CC at Cleveland, then to a nursery operated by "Blondie" Wilson and Allan Bland at Toronto, has appeared as one of the superior putting surfaces. Charley Wilson, Noer's successor at Milwaukee Sewerage Commission, suggests the strain be labeled "Noer bent." •

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Gleneagles CC, Lemont, Ill., where the 1958 and 1959 Chicago Opens were played. Then, from 1931 until around 1940 he had interests in Indian Wood and Park Forest CCs, both Chicago district courses that have since been subdivided. He also leased Trout Lake (Wis.) CC and Beverly Shores, an Indi-

ana Dunes club, at different times in the 30's. At some of these clubs he served as the manager-superintendent.

Both of his sons will tell you that Charlie also could have filled in as pro at these locations since he was an outstanding golfer in his day. The elder Maddox, who is about 6' 2", weighs nearly 200, and avoids excess poundage by continuing to put in up to 12-hour days around a construction site.

In its earlier golf-building phase, Maddox Construction built about 25 golf courses between 1923 and 1931. Practically all its building activity was confined to Illinois, Wisconsin and Indiana. Once, when it ventured into Florida, a speculator paid off in stock certificates that Charlie Maddox used to paper a chicken house on his farm in northern Illinois.

The 1923-31 course-building era was a rugged one, but as Charlie Maddox says, "when you look back on it, a kind of romantic one." From 1923 until 1926 most of the work was done with horses and mules. The Maddox firm owned



Chuck Maddox, Jr. battles muck of new course near New Orleans in bulldozer.

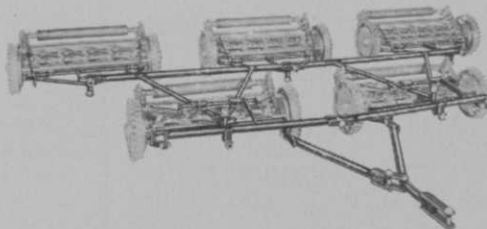
about 50 or 60 head of horses and mules and on a hot day about 40 of them were used on a job. The remainder were either indisposed or held in reserve.

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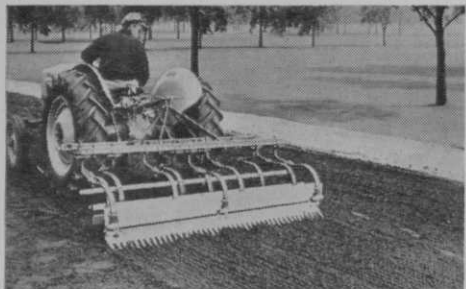
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THREE COURSES

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The dirt-moving project required plowing as an initial step, and then the use of slip or wheel scrapers, pulled by four-mule trains, to move the earth and accumulate it in piles for building greens and tees and leveling fairways. Transportation of dirt across a course was accomplished by using dump wagons loaded from gas-driven conveyors.

Soil was rarely brought onto a course, with the result that rough areas were scraped to the clay bed in order to borrow topsoil. "It used to be that roughs were barren of any kind of grass for years after a course was built. About the only vegetation in them was weeds," Charlie Maddox says.

Back in 1923 greens were usually seeded to *Poa annua*, although Fescue was used on some courses and South German Bent was introduced around this time. The first stolonized greens that Maddox recalls were installed at Palos CC (later known as Southmoor), near Chicago, in 1922. Fairways were planted to Bluegrass. Seeding was picturesque: A bag of seed attached to a bamboo pole was carried on a course laborer's shoulder. As he walked along he swung the pole in an arc so that the seed, rolling down through the hollow pole, was distributed uniformly. Around 1925, a wheelbarrow seeder replaced the bamboo pole.

Green construction in the 1920's wasn't nearly as refined as it is today. There wasn't too much emphasis on smoothing the contours; the trend was, in fact, to rather abrupt breaks. Few putting surfaces were tiled in the 20's, but some time around 1929 the combination gravel-sand blanket was introduced in constructing the bed of a green.

Tree and stump removal was a rather precarious undertaking. Two-man teams, using cross-cut saws, felled the trees, and dynamite with black powder fuses was used to blast out stumps. Course workers of this era preferred to work in groups of seven on the dynamite detail, and they usually blew seven stumps at a time.

Now and then a piece of stump was blown several hundred yards beyond the course property. Once, one of these mis-

siles was projected through the roof of a barn on a nearby farm, bringing the threat of a law suit. The affair, however, was settled amicably when the Maddox firm agreed to pay for the roof repair.

There was a kind of gypsy air about the compound in which workers lived while a course was being built. It was always located in a grove of trees, preferably near a stream. A rolling cook wagon sometimes was brought in. If not, a cookhouse was built before construction of a course was begun and along with it, a bunkhouse or two. A husband and wife team usually was hired to cook for the crew of 30 or 35 men. Food had to be good or it was impossible to keep help.

Most of the Maddox employees were muleskinners who were recruited in Missouri, Kentucky and Southern Illinois, and the majority weren't afraid of hard work. It was necessary to have specialists on the payroll in the 20's. Today, a course construction company can't get along without mechanics; the specialists then were blacksmiths and barnmen.

The muleskinner began his exodus around 1925—unless he learned to drive a tractor. It was about this time that contractors of all kinds started using more and more tractors because they now were being turned out in mass quantities by automobile and farm equipment manufacturers. Until 1925 the only tractor Maddox Construction owned was a Holt, a relic of World War I. So far as Charlie Maddox is concerned, the muleskinner, or at least his trade, became extinct in 1929 when his company sold the last of its horses and mules.

The development of the Fresno scraper in the mid-20's, along with the increasing use of tractors, enabled course builders to move dirt faster and step up the building pace. The lever-operated Fresno, a steel cylinder open on one side and equipped with draw bars, was a considerable improvement over anything that had been used before for scraping and transporting topsoil. Maddox credits his father with improvising what may have been the first bulldozer used in the U. S.

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He rigged a wooden scraper to the front end of a tractor so that dirt could be pushed ahead of it. That greatly improved the maneuverability and earth moving capacity of the machine.

Where Maddox Construction once confined its activity to three states, it now ranges over the entire country east of the Rockies, and will go beyond these boundaries if a building contract is waiting. In recent years it has built courses in such widely scattered places as Fargo, N. D., Delray Beach, Fla. and Tucson, Ariz. The company expects to have another course going in Florida this winter.

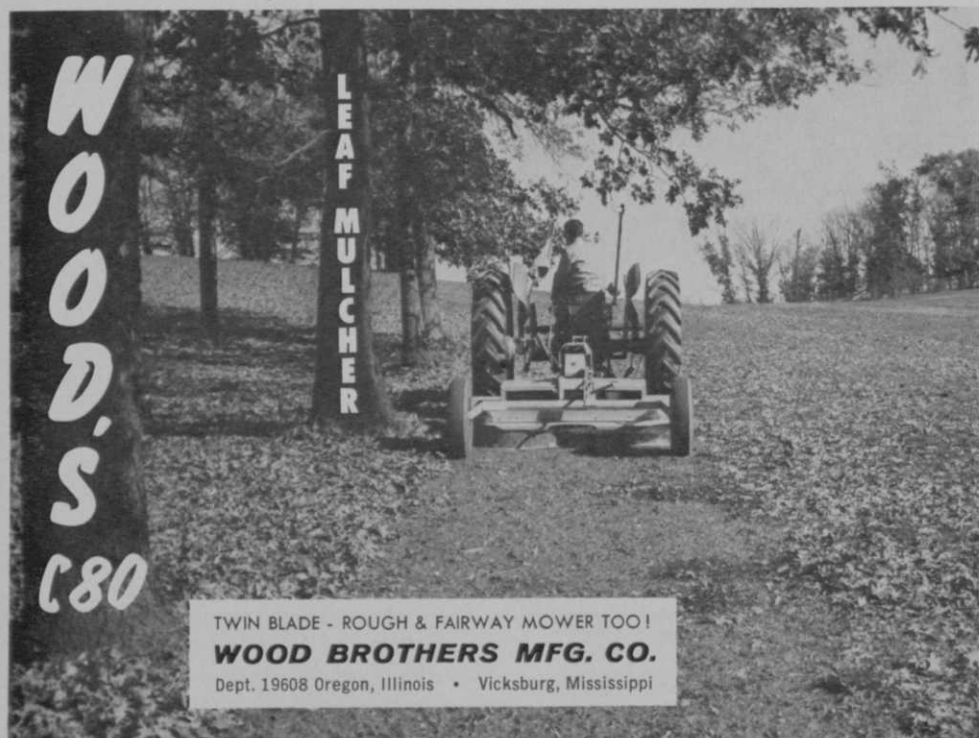
There are at least four reasons why the Maddox Company has been able to widen its range. Most important is that Chuck and Bill, having served their construction apprenticeship between 1946 and 1956, are as competent as their father in shaping a golf layout.

Great improvements in the capacities

and performance of construction equipment in the last decade have speeded up the building process and made it somewhat easier, although the Maddoxes aren't always convinced of this in the midst of a June-July heat wave.

Better transportation facilities have given the company much more mobility than it had 10 or 15 years ago. It can now pack up and move from 15 to 20 truckloads of equipment several thousand miles in only a few days where once it took perhaps a month to pull out of one job site and get relocated in another.

Finally, the three arms of the Maddox Company all have experienced and well-trained working crews. The nucleus of each is composed of about eight or 10 men, most of whom have been with the company for at least five years. It is because of the skill and competence of the men who work for them that the Maddoxes are able to pride themselves on two things: They are never late in completing a job, and they never have to go back and repair one that has been done. •



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