MAY 29 National Cash Register Co. employees formally opened their two 18-hole golf courses and clubhouse. The plant is by a substantial margin the largest golf construction job of recent years and perhaps the biggest investment yet made in a golf establishment. Its cost is approximately $2,000,000. Industrially it is outstanding in many ways.

In company policy as well as in the character and cost of the courses, clubhouse and operating equipment the plant impressively exhibits the importance highly successful corporations put on golf as a valuable balance in an intensely industrialized civilization.

The personnel situation at NCR's huge Dayton plant is one of mutual respect and friendliness between those who might be termed the "enlisted men and women" and the "officers." "Labor" and "management" are interchangeable labels at NCR. The non-executive workers say that nobody works harder than S. C. (Chick) Allyn, NCR's president, and his companion executives. Col. E. A. Deeds, 80-year-old chairman of the board; Allyn, R. S. Oelman, executive vp, and the rest of the top command take pride in the family spirit which prevails in the organization.

Golf in NCR Community Service

Another factor reflected in the democracy of NCR operations is the range of the company's business from a little store buying the lowest priced item in the NCR line to gigantic corporations and governments whose purchases run into millions. Every customer is important to the NCR management and so is every worker on the National Cash Register team.
Golf figured early in the NCR community- and employee-relations picture. John H. Patterson, pioneer builder of the company, although not a golfer, gave the 36-hole Community CC to Dayton. Col. Deeds, also not a golfer, was a founder of the Moraine CC on which the 1945 PGA championship was played.

Allyn is the golfing driver of the NCR outfit. He shoots in the mid-80s. He has served as chairman of the Advisory committee of the PGA. Allyn is a star among the world's super-salesmen. He will return to Dayton after a trip of weeks abroad, catching his sleep on the fly, steam through accumulated desk and plant work, then on week-ends get out for golf to keep himself in condition for a brutally strenuous schedule.

NCR always has had an accent on employees' recreation. The Old River recreation park close to the main factory is a model operation. There are swimming, boating, picnic, golf practice, and other recreation facilities. Movies and other indoor diversion also feature the NCR Employee's Benefit Assn. program.

With the great growth of golf interest and play there hasn't been room enough for NCR's 13,000 employees and their families who are present or potential golfers, on Dayton's courses. There are 63 holes on Dayton's three muny courses, a semi-private 18 hole course, and five private clubs in the Dayton area; a total of 162 holes of golf. The population of Dayton's metropolitan area is about 340,000.

To provide NCR employees with golf facilities of the most completely satisfying character golf architect Dick Wilson was called in and given instructions to provide the best for NCR employees. To a 200 acre area secured from Col. Deeds another 270 acres adjoining was added. The entire tract has as an across-the-road neighbor the Moraine CC. On its borders are fine suburban residences and estates.

Scenically the site was superb. One 18, the South course, can provide a rigid test for the field in any major golf championship. It winds through wooded, undulating terrain. The other 18 (the North course) is on what was rather flat farmland. This has been transformed by the magic of modern earth-handling equipment and methods into exceedingly interesting rolling ground very much on the order of some of the Scotch seashore courses, although without their rugged trapping.

Big Earth-Moving Job

Construction work was begun May 1, 1952. In four months the courses were roughed in during what probably was the most extensive non-hydraulic earth mov-
NCR's interest in golf extends beyond its own family in Dayton. Company chiefs have brought the game's stars to Dayton for exhibitions. Here, prior to an exhibition at Moraine are (L to R): Babe Zaharias, Col. E. A. Deeds, chmn., NCR board and S. C. Allyn, pres.

ing job done in golf course building. The courses' sites, like that of the adjacent Moraine CC, was a glacial moraine and full of rocks and pebbles. Generally it takes years and an untold amount of money to get satisfactory golf turf on such ground. Here Wilson decided, and was given the green light by NCR, to save money and time by doing the job quickly at the start.

Wilson placed the earth-moving contract with Troup Contracting Co., Miami, Fla. The Troup organization has done 12 earth-moving jobs on Wilson-designed courses. On the NCR job approximately a million dollars' worth of equipment was used. At one time there were 50 operators, 50 laborers, two superintendents and five foremen on the job.

Some topsoil was hauled from as far as 2 miles away. Due to careful planning and speed the over-all economy of this work was remarkable. In one day 10,000 yds. of dirt was moved. Action was swift with the earth being unloaded and contoured quickly after the stakes were put into the ground.

There are no blind holes and course design has a very gradual rise to the clubhouse which is 75 feet above the lowest point of the course. Subgrading and topsoiling was done with machine course maintenance clearly in mind. Especially interesting examples of fairway contouring to control shot placement, and in one case to steer play with complete safety on parallel fairways, are among features of the design taking fullest advantage of the earth-moving facilities.

Seeding Catch Good

All fairways, tees and slopes of greens were seeded in August 1952. Fairways were seeded to a combination of Astoria bent, Chewings fescue and bluegrass supplied by O. M. Scott & Sons Co. Tees also were seeded with this combination but with a heavier percentage of bent.

Despite adverse weather conditions seeding catch was excellent. A soil preparation program and fertilization involving use of Milorganite, 10-6-4 and 6-10-4 together with one of the most complete and modern watering systems accounted for saving years in turf development time and in cash economy beyond the realm of estimate.

Watering System Thorough

Clow-National mechanical joint castiron pipe in 3 in. thru 10 in. sizes and to the extent of 40,910 ft. was used. Durability, low maintenance cost and flexibility were performance and economy factors figured
Landscaping was planted early on the road side of the equipment building to dress it up as fitting a fine residential district.

in determining the installation which was trenched by Southern Hills Pit, Inc., Dayton. Galvanized steel pipe (10,000 ft.) was used in lead-offs to sprinkler heads. Plastic pipe was used for drinking water lines.

Two Layne & Bowler 30 hp deep well pumps, each 300 gpm, were installed to supply a 700,000 gal. reservoir. Water level of reservoir automatically operates or cuts out pumps. Four American Well Works 300 gpm pumps supply water to course sprinklers via a 7500 gal. pressure tank.

Skinner sprinkler equipment was used on a carefully worked-out system of sprinklerhead distribution that provides uniform water coverage. Generally the heads are spaced 80 ft. apart. Water distribution includes rough areas within playing scope. The watering system is set up to operate 28 sprinklers simultaneously.

Considerable investigation of watering installation and practice was done among superintendents and golf turf scientists prior to designing the watering system.

The pumphouse is adjacent to the course equipment headquarters. Equipment headquarters and course service roads were thoughtfully located for efficiency and to avoid interference with play instead of being hit-or-miss placement as often is the case at golf courses.

Early Work on Greens

Greens were planted to C-1 and C-19 in September, 1952. Then a spell of hot, humid weather came along. Availability of the watering system was a life-saver. In 1953, with some patching, greens were maintained toward the latter part of the season virtually on a playing basis. Fer Mel soluble fertilizer was effectively used in this program. Hand weeding was done on greens by a force of 47 men who also attended to such jobs as clearing away brush and woodlands bordering fairways. Tersan, Calo-Clor and Acti-Dione helped greatly in greens development and maintenance.

The clearing up operation was another example of getting the course completely prepared so attention could be concentrated on maintenance while the course is in play, instead of having to divide work between maintenance and completion of undone construction and clean-up work which usually makes the first couple of years of new course operation costly and unsatisfactory.

Due to a generally gravelly subsoil tiling wasn't needed as greens drainage. Greens were put into basic shape for planting by floats of 2 in. by 12 in. timbers held together by steel ropes with finishing contouring done with steel mats to soften the grades for mechanical maintenance and surface drainage prior to planting.

Particular attention was given to getting physically as well as chemically correct soil. On fairways and on greens and tees where design permitted Seaman pulverizers on big wheel tractors went over the ground, prior to plowing and discing.

The year's conditioning in 1953 showed remarkably little settling and tees are noticeably level for a new job that's been well weathered-in.

Because of accent on having everything finished at the opening greens weed elimination was more strenuous than is customary on new courses and comparatively few small spots required overseeding with a 50-50 mixture of seaside and redtop.

Start Fully Equipped

Never before, so far as informed superintendents, equipment men and golf turf authorities know, has a golf establishment had the start for fully and efficiently mechanized operation the NCR courses have had. Allyn told Jack Hart, supt. of the courses, and Dick Wilson that he
In the National Cash Register Family Spirit

(S. C. Allyn, NCR Co. president, comments on getting together at the new club.)

The NCR Company has always given considerable attention to recreational facilities for employees and their families. We believe that the opportunity to get together in after-hour activities does much to foster the family spirit which has always marked this organization.

We have seen, for instance, how much our employees' recreation center, Old River, has meant to our people during the 15 years it has been in operation. With its swimming pool, picnic groves, boating lagoon, baseball diamonds and other attractions, Old River is enjoyed by thousands every summer.

The popularity of Old River emphasized the interest of employees in wholesome recreation. The 40-hour work week and full week ends have increased the amount of leisure time available and give families more opportunity than ever before to get out of doors and to participate in sports. Forty years ago when I joined the business, the normal work week was 54 hours.

In considering the expansion of existing facilities it was natural that golf should be given serious consideration.

Industrial golf courses are not new. There are a number throughout the country and quite a few have been established fairly recently.

We knew that many of our people were playing golf and that many more would play if better facilities were available. While Dayton is probably in as good a position as the average community from the standpoint of public and private golf clubs, all its courses are overtaxed. The congestion and long waiting times which frequently resulted, did not add to the pleasure of playing and undoubtedly kept many from taking up the game.

The facilities of the NCR Country Club consist of two 18 hole golf courses and an attractive clubhouse, complete with locker-rooms, lounges, snack bar and pro shop. The South Course winds through wooded hills and is considered a course of championship calibre. The North Course is much more level and will have a special appeal for those who are just starting to play and for women.

We believe these courses will satisfy the golfing interest of the many hundreds of our people who want to play the game. Our employee ranks include some of the community's best amateurs. On the other hand, hundreds who have signed up are just taking up the game. Over 600 are taking beginner's lessons, and have been during the months the courses have been under construction. Among these are wives and children of employees. As of the opening date more than 3,000 employees and members of their families had taken golf memberships and another 2,000 social members and employees of other clubs have taken golf memberships. The cost of membership has been extremely low. We believe that golf has already made an important place for itself in the industrial recreation picture and that it will make even greater progress in the future.

The Club will be operated as a separate non-profit corporation known as "The NCR Employees Benefit Association" with its own officers and operating committee. While the Club is for the use of NCR employees and will not be open to the public, it will benefit other golfers in the city by taking some of the pressure off of other courses.

As time goes on we expect to expand intra-plant leagues and help to promote local industrial league events. It is quite likely that we shall be associated with industrial events of even broader geographical significance in the years to come.

We believe that golf has already made an important place for itself in the industrial recreation picture and that it will make even greater progress in the future.

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Sprinklers were put into action early and speeded development of good turf on soil that had been well prepared and seeded.

**NCR NEW CLUB**

(Continued from page 50)

Equipment storage and repair space, and storage for fertilizer, seed and supplies. There also is a large section for making and storing compost. During bad weather 200 yds. of compost of soil, sand and peat moss were made and stored ready for use this season.

**Equipped for Operating Efficiency**

Among the maintenance equipment are two 5-gang Worthington Blitzers, two 7-gang Toro fairway mowers, Worthington and Toro tractors and a $3500 John Deere tractor which Hart says already has paid for itself in road construction, clearing, on compost jobs and other work; a Wagner tractor loader on a Worthington tractor which also is classified by Hart as among the equipment that has paid its cost, Jacobsen greens mowers, Friend and Hardie sprayers, two Jeeps and a Royer compost shredder. There is a most complete supply of small implements and equipment for maintaining all machinery in prime operating condition, including complete Fate-Root-Heath equipment for mower maintenance.

The equipment building has a drain pit for automotive equipment.

Outside the building is attractively landscaped and adequate road and parking space is blacktopped.

**Clubhouse Planned for Operating**

The clubhouse represents another bright example of NCR teamwork in planning. Eddie Grabeman, supervisor of NCR commissary operations and general manager of Moraine CC will be in charge of NCR building construction and maintenance, went over three sets of plans with Allyn before deciding on the clubhouse to exactly meet the requirements.

There will not be much late night business. The kitchen, snack bar and soft drink facilities are top grade and attractively laid out to supply the finest service of the type desired. There are 588 lockers in the men’s locker-rooms. Locker rental is $2.50 a year for a half-locker. They all are double lockers of ample storage space. The 240 lockers in the women’s locker-room are single lockers. It is expected at the way women’s golf interest has been growing among NCR employees the girls also will be doubling in use of lockers.

The clubhouse is heated by radiant heat under floors. Very good cross-ventilation is provided in the locker-rooms. Shower, toilet and lavatory equipment is identical with that at the most expensive new private clubs.

The glassed-in porch overlooking the company’s golf club, and Robt. Buzzard will be resident clubhouse manager. Grabeman, Buzzard and Charlie Prentice, in charge of NCR building construction and maintenance, went over three sets of plans with Allyn before deciding on the clubhouse to exactly meet the requirements.

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The glassed-in porch overlooking the

Jack Hart, NCR courses supt., squats as he discusses the fairway turf with his two course foremen.
first and tenth tees and ninth and eighteenth greens of the championship South course, is a delightful place for lunch and dinner service. Jalousies provide ventilation for the large veranda.

The pro shop is located adjacent to the men’s locker-room and is in the clubhouse building. It also has convenient access for women golfers.

A big job has been done in building roads and parking space for 600 cars in the clubhouse area, with auxiliary as needed. The thoughtful use of handsome and very serviceable lighting standards is a feature not too often found at private clubs where there is a large volume of night party business.

Pro Dept. for Big Business

Much attention was given to landscaping around the clubhouse as well as on the North course which was laid out on former farmland. The design has been so expertly done the course and clubhouse seem to have been built into natural landscaping.

Tommy Bryant and his staff who will operate the pro golf dept., line up in the new NCR pro shop. L to R: Jack Snell, Tommy Bryant, also head pro at Moraine CC., Jim Rudolph and Freddie Ebitino.
Tommy Bryant, pro at Moraine CC, also is in charge at the NCR club. Tommy has on his pro staff at NCR Freddy Ebetino, Jim Rudolph, Jack Snell and Jim Rutherford. The boys have worked hard at preparing the NCR folks for the new courses. They had 624 taking series of six class sessions, in groups of eight students. The series of lessons cost $5. The lessons were an hour long. The class enrollment is about 50-50 between men and women. Lessons were given at the golf range of the Old River recreation park. Buckets of practice balls are provided at low cost. Clubs are furnished for the lessons if the students haven’t their own equipment.

This preliminary teaching was designed to have informed and understanding beginners coming onto the new courses.

Allyn’s prime decision as to policy was that employees be asked to pay a purely nominal fee, far below actual cost.

Already there are 2300 golfing memberships — 2000 employees and 300 of their wives. The yearly golfing fee is $5 per person. For those who don’t have yearly memberships the price per round is 75 cents Tuesday through Fridays. Weekends and holidays the greens fee is $1. The annual dues in the club are $5 which entitles the employee, the employee’s wife or husband and unmarried children living in the same household, to buy golfing privileges.

Stony character of soil before topsoil covering is shown during the installation of Clow-National mechanical joint cast iron pipe and riser for one of the Skinner fairway sprinklers.

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**Always in the best company**

Again, we are honored by NCR’s use of FER-MEL water soluable fertilizer in the development of superb greens on their magnificent new courses. Because of its noteworthy results in modern turf management FER-MEL has been in the best company of superintendents and officials responsible for perfectly conditioned golf courses.

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**No. 10 green on NCR South Course**

Ask for free Fer-Mel Bulletins: Summer Feeding Bent Greens; Growth Control—What Is It; Fertilizer Cost Analyses; Chemical Calculations in Turf Management.

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Fits in the picture of modern turf management.
Attractive snack bar and grill of NCR clubhouse is equipped and laid-out for quick, pleasing service.

The NCR Employees Benefit Assn. whose officers consist of representatives of the executive and operating departments, did a lively performance in getting golf interest blazing with plenty of publicity. Tommy Bryant and his pro department staff credit this enthusiasm with creating an attitude toward golf instruction that has made teaching results eminently satisfactory.

The NCR employees' organization issued a booklet "For Your Enjoyment" which fully describes the facilities, presents rules and regulations and gives other details promoting pleasant and extensive use of the new club.

In addition to fundamentals of the grip, stance and swing the class students have been taught about the etiquette of the game, course care, rules and in general how to go at the game not as cold beginners but actually better qualified to play than many who have been playing catch-as-catch-can for years.

There are 315 bag racks and room for more in the room adjoining the pro shop which Tommy designed to give the NCR players shop and merchandising service equal to that at the best private clubs.

Bryant has a number of sets of rental clubs for those who want to get some rounds of golf before they decided what their future is going to be in the game. He's also got new sets of Nos. 2 and 4 woods, and Nos. 3, 5, 7 and 9 irons and a putter for those who want to buy their own clubs and fill in later. As many of the NCR employees are experienced golfers Bryant makes a strong feature of top quality playing equipment. Sales at the shop can be paid for on the payroll deduction plan and the buying price spread over the year so the clubs and bags at the NCR course will be of higher inventory average than at most private clubs.

Cart rental service is provided at low rates by 100 Bag Boys.

Large space bordering the parking area is provided for practice and instruction. Bryant investigated pro department operations at other golf clubs operated by employees and management of leading corporations and made use of their many excellent service ideas as well as adapting numerous methods from Moraine's high level private club operations.

The NCR club hopes to be host to major championships on its South course. Before long pro and amateur stars who have
Dick Wilson, golf course architect, and Tommy Bryant, pro, from NCR clubhouse porch talk about the golf they'll see on the rugged South course, which lies beyond the then unfinished clubhouse area lawn.

an opportunity to play the course will be testifying to its championship specifications. Paul Hahn whose trick shot exhibition was a feature of the opening day program is the first of the nomadic pro celebrities spreading the story of NCR's great new golf plant.

Industrial golf had its beginning in the U. S. at the course the Oneida (N. Y.) Community started in 1896. It has reached high status among all American golf operations. Clubs operated by employees and management of companies noted for efficient and harmonious operation have golf establishments comparing favorably with exclusive private clubs — and at a lot less cost to golfers. Among this select company NCR workers now take a proud place.

Sargent Sets Successful Plan for Women's Class

THE PATTERN for a highly successful women's class program has been established at East Lake CC, Atlanta, Ga., by professional Harold Sargent and his assistant, Frank Clark.

The schedule was six free class lessons on consecutive Fridays. On Wednesdays the East Lake Women's golf organization welcomed the newer golfers, helped them with rules, acquainted them with golf etiquette and play procedure and went around the course with the beginners to help them select clubs for the shots and in general induct them into play.

Sargent's schedule was carefully planned. In the first lesson he explained that golf would take some effort, mental and physical. The class members were warned that they might feel as though they were the most inept women who ever ventured into golf but that should not discourage them as almost anyone who started might feel the same way. Sargent made it plain that fanning the ball now and then was to be expected in the earlier stages.

Sargent and Clark were very careful to keep the beginning women encouraged; they had to be far more delicate than with junior classes but at the same time insisted the instructions be followed.

Each of the almost 60 women who participated in the classes hit shots under supervision for about 5 minutes during each of the lessons. Sargent is positive they got much more good out of hitting shots than from group swinging of clubs.

After they'd got around the course with the experienced women golfers on Wednesdays, part of the group time the following Friday would be devoted to asking each beginning woman what gave her the most difficulty. Then the lesson would answer those problems.

Of the 60 women who started in the class 30 became quite regular golfers. Many of them are private lesson pupils. Sales of ten new sets and several sets of used clubs were direct results of the class lessons.

Sargent believes the class lesson idea went over so well because women's sound business and shopping instinct has them reluctant to spend much money getting into golf until they are sure they'll like it. The free lesson idea is the sampling method that merchandises so well to women, being applied to golf.

The grouping of beginners also had the attraction of being free from embarrassment as all the beginners were in the same boat. It had the further psychological appeal of joining other women in a smart activity.

The class lessons were held in the fall when the women's children were in school, the weather was wonderful, and the pro staff wasn't as busy as in spring.

Husbands of the women who were in the classes were happy about the deal. So were East Lake officials who, like officials of most clubs, desire to have the club appeal to the entire family and give club membership a broad, strong foundation.

The class will be repeated this fall and with the enthusiastic vocal advertising of members of the first group it is certain this autumn's class will be even larger than the initial roster.