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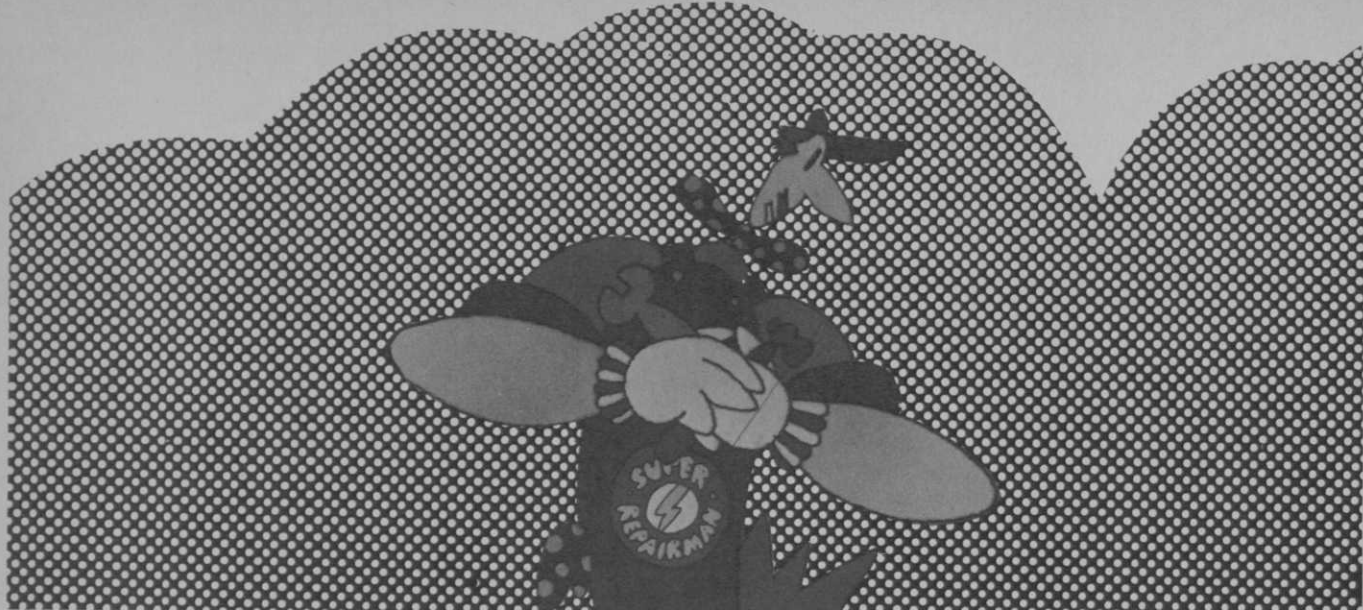
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*A problem of crisis proportions is rapidly descending upon municipal, public and private golf course superintendents: the lack of trained mechanics to repair turf equipment in case of breakdown.*

*At many courses in the past, superintendents have doubled as mechanics. At many of the smaller courses they still do. However, the use of complex and sophisticated machinery, coupled with ever-increasing numbers of golfers and a longer playing season, are placing a burden on the superintendent's ability to maintain adequate playing conditions. The burden on superintendents becomes greater when equipment sent to dealer or factory repair shops take months to repair due to backlog. To relieve this burden, the trend is toward superintendents establishing a self-sufficient maintenance and repair shop staffed by a full-time mechanic.*

*Some distributors and manufacturers, particularly in the North, have a four-month backlog of machines waiting to be serviced during the slack winter months. However, the increase in golfers and the playing season have precluded the luxury of "locking up for the winter" while sending equipment in for repair. According to one midwestern superintendent, another advantage of a full-time mechanic who services equipment such as golf cars, tractors, mowers and even irrigation equipment, is the prevention of the big repair bill and the increased operating efficiency and life of the equipment.*

*The task facing the golf course superintendent is finding a mechanic*

## HOW TO BEAT THE EQUIPMENT REPAIR CRISIS

By the Editors

*Complex, multi-purpose machinery and four-month repair backlogs are forcing the superintendent to establish his own repair shop with a mechanic*

*capable of servicing turf equipment. One major equipment supplier estimates it takes from six months to one year to convert a good automobile mechanic into a golf course mechanic. Because superintendents have neither the time nor the skill to train mechanics on this new dual-purpose equipment, a vacuum of skilled turf mechanics has resulted.*

*Equipment manufacturers, distributors and dealers are trying to meet their responsibility by acquainting golf course mechanics with their products—however, they are not running a training school for mechanics. Said one service school representative, "One superintendent sent people to these clinics who had very limited mechanical knowledge and ability. We cannot take the time, nor do we have the manpower, to train people sent to us by the golf courses. We want golf courses to send us mechanics who are already familiar with turf equipment and engines. Then we will train them on the servicing and repair of our equipment."*

*Jacobsen Mfg. Company offers a special factory service and repair school to acquaint mechanics with Jacobsen products. These three-day clinics run from October through March and provide theoretical and practical experience on all Jacobsen products. The cost of the clinic is \$45 per person with lodging, or \$15 without. The Jacobsen clinics have attracted over 400 mechanics throughout the five-month period.*

*Toro Mfg. Corp. provides service clinics on its equipment through its regional distributors. Western Toro in Burlingame, Calif., held ap-*

proximately 25 schools in 1970 for golf course mechanics. Two special clinics which Western Toro conducted attracted over 500 mechanics.

Another example of the services offered by manufacturers is Cushman Motors located at Lincoln, Neb. Cushman offers three-day clinics year-round at no charge. Training sessions, which must be arranged by appointment, are conducted on its golf cars and other turf equipment. In addition, Cushman dealers are willing to take a mechanic into their service repair shop to help acquaint him with their product.

The responsibility for finding and training a person to become a golf course mechanic still lies with the superintendent. To date, the incentives for becoming a golf course mechanic have not been very attractive. Golf clubs are unwilling to provide a wage which is competitive with surrounding industry. Another cause, perhaps justified, is the condescending attitude mechanics believe club members have toward them as skilled craftsmen.

The superintendent knows differently. A good golf course mechanic is worth his weight in golf balls. Consequently, according to one midwestern superintendent, rivalries have developed between more than one golf course vying for a good mechanic's services. In fact, he reports, the stealing of good turf mechanics in his area has become a clandestine practice.

To attract a full-time mechanic, golf clubs must be willing to offer wages that are competitive with industry. This is usually \$4 an hour and up. One midwestern superintendent, who has a \$125,000 inventory of turf equipment, pays his mechanic \$12,000 a year. He says the salary is a very good investment because his mechanic works between 10 and 12 hours a day and is very versatile. The mechanic is also an experienced welder, upholsterer, pipefitter and carpenter.

Municipal courses, which usually rely on city work crews to service their wide variety of equipment, generally have a full-time mechanic. But in all probability, he may lack proper training on turf equipment. On the other hand, many small public and private courses feel they cannot afford the services of a year-round mechanic. The possible solution to this problem is the establishment of a maintenance and repair

shop with a mechanic by several courses in a central area. This is currently being done with great success by two courses on Long Island, N.Y. Neither course could justify a full-time mechanic, but together they keep him busy and keep their equipment at a high state of readiness for the grueling golfing season.

One superintendent in California sent his top mechanic to three different clinics sponsored by three equipment manufacturers. Before the clinics, he recalls, one repair job done at his shop had a spacer installed backwards which resulted in unnatural wear and early breakdown. Following the manual, his mechanic had put the part in the right place, but the wrong way. The superintendent received a maxi-



mum return on his investment in sending his mechanic to these clinics. Upon the mechanic's return, he helped train other course workers who could act as backup men in case of an emergency.

There apparently is no end in sight for the backlog of machines to be serviced during the winter months. Indeed, the period may well be extended year-around. It has been stated that the 1970 production of small gas engines in the United States will be about nine million, of which seven million will be power mowers. Many of these mowers go to small homeowners, but larger mowers go to golf courses, parks, cemeteries, schools and other institutions. This increased equipment production has greatly exceeded the ability of mechanics at the dealer and factory levels to keep up with repairs. "Each person calling to get his mower or other turf equipment repaired wants to be placed at the top of the list," says

one manufacturer. Because mechanics working in dealer repair centers are getting high wages, they are not interested in working overtime, hence a backlog of machines waiting to be serviced. Says one dealer, "I get \$12 an hour for service in my shop and I wish I could do away with that department. It does not make any money. This is due to the large inventory of parts which I must carry, paperwork and the salaries and benefits paid to mechanics and parts men. I can make money sharpening mowers," he states, "but not on repair work. I keep the repair shop only because I am required to service what I sell."

Mechanization is rapidly replacing the manual laborer on the golf course. But, with mechanization, comes the related equipment maintenance and repair services which golf courses must establish if they are to operate as profitable and efficient business ventures. □

#### Service Clinics for Turf Mechanics

The following are a list of some of the major equipment manufacturers which provide training service clinics for golf course mechanics using their equipment. Superintendents interested in finding out if manufacturers not listed below offer service training clinics should contact their local dealer or distributor for further information.

#### Turf maintenance equipment

**International Harvester:** Dealers are trained by the factory to work with golf course mechanics in the area they service. They also have two "troubleshooter" mobile units traversing the country. Contact your IH dealer for more information.

**Jacobsen Mfg. Company:** Service schools held at the factory October through March. Three-day clinic includes theory and practice on all Jacobsen turf equipment, including mower grinding. Cost: \$45 with lodging, \$15 without. Reservations for 1971-72 should be made. Contact Ken Weill, Jacobsen Mfg. Company, Racine, Wis. 53403.

**Kohler Company:** Training sessions available to users of Kohler equipment. For appointment contact your local Kohler dealer or Ed Anderson, Kohler Company, Kohler, Wis. 53044.

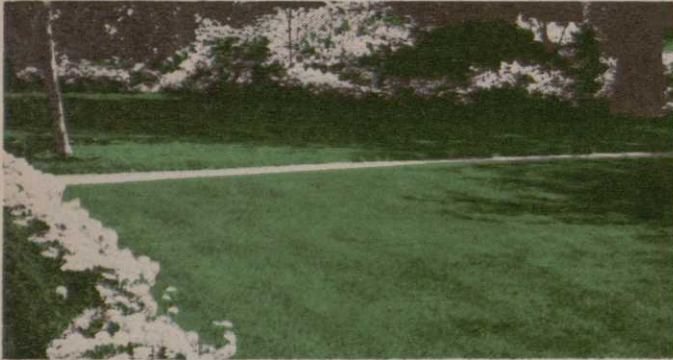
**Roseman Mower Corp.:** Training sessions available on Roseman gangmowers. Contact Robert Duguid, Roseman Mower Corp., Glenview, Ill. 60025, for appointment.

**Ryan Equipment Company:** Training sessions available by appointment. Contact Russ Rose, Ryan Equipment Company, St. Paul, Minn. 55109.

**Toro Mfg. Corp.:** Training service clinics handled through regional distributor. Factory representatives will be on hand to assist with clinics. For additional information contact your Toro distributor.

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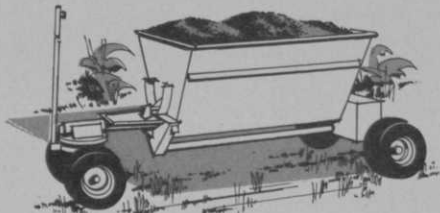
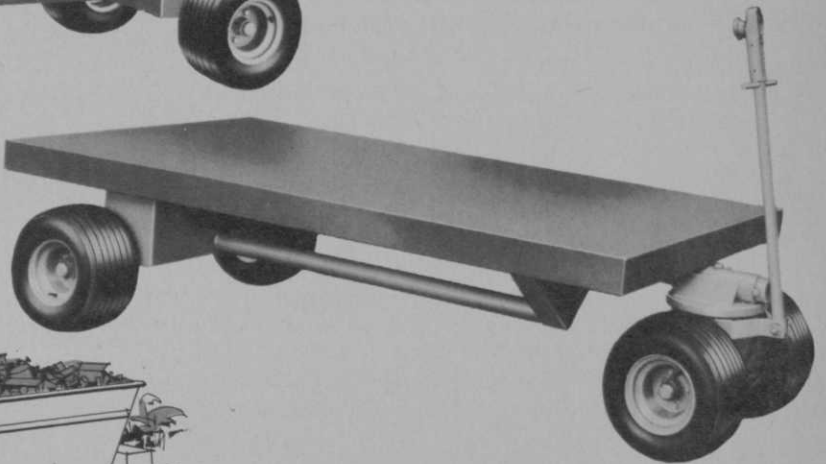
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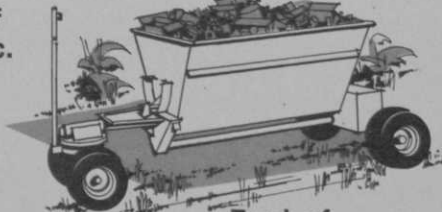
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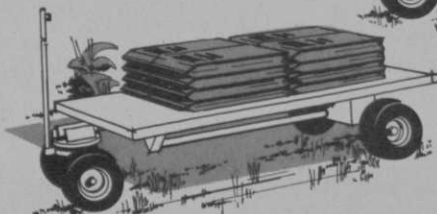
*A rugged chassis on Terra-Tires, with removable, interchangeable 1 cu. yd. hopper and big flat bed*



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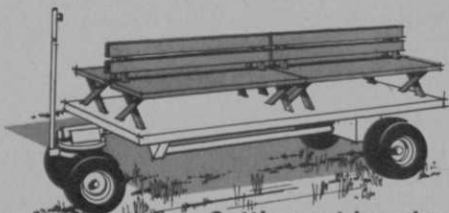
Trash of all kinds



Sacks of seed, fertilizer, etc.



Debris from all parts of course



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# YOU THINK YOU HAVE PROBLEMS!

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By Bob Gustafson

Assistant Superintendent of Parks, Portland, Oregon

**Dedication, perseverance and originality helped Portland's parks department overcome almost insurmountable problems in building the Delta Park course**

The Delta Park GC in Portland, Ore., was designed by Robert Trent Jones, who has the reputation of being one of the top golf course architects in the world. The course was designed so that it would be playable to the average golfer and yet be of championship quality for the professional.

The natural topography was completely flat with less than three feet elevation between the highest and lowest points. To help give the course shape and character, 350,000 cubic yards of earth were moved to build tees and mounds for the fairway, gallery and greens. The natural ponds and sloughs were deepened and shaped to provide six lakes totaling 21 acres with gracefully sculptured shorelines. A significant reduction in cost was realized by using, as part of the drainage system, the sanitary sewers remaining after the demise of Vanport City. Good drainage is absolutely necessary because Portland gets 40 to 50 inches of rain each winter.

When a park bureau organization, which is usually involved only in maintenance, takes on a construction job such as this one, it is bound to have many problems, and building Portland's Delta Park course has proved this to be true.

Because of the lack of actual golf course construction experience of the men, many of the difficulties encountered required solutions that, as far as the people involved were concerned, were original and unique. This problem was solved by keeping very close contact among the project supervisor, the foreman and the men, and maintaining a two-way flow of information so that all involved would be aware of both progress and setbacks. The goal-oriented team effort was also successfully used.

Debris and rock left after the flood, which swept away the city of Vanport, was a continual irritant. Just when a fairway was leveled and ready for seeding, the equipment would hook a water pipe, bedspring or building foundation. Removing the offending object would expose rocks, dirt clods and other debris and the seed bed preparations would again have to begin.

In spite of the unusual problems, this project was completed on schedule and will be one of the finest golf courses in the Northwest □



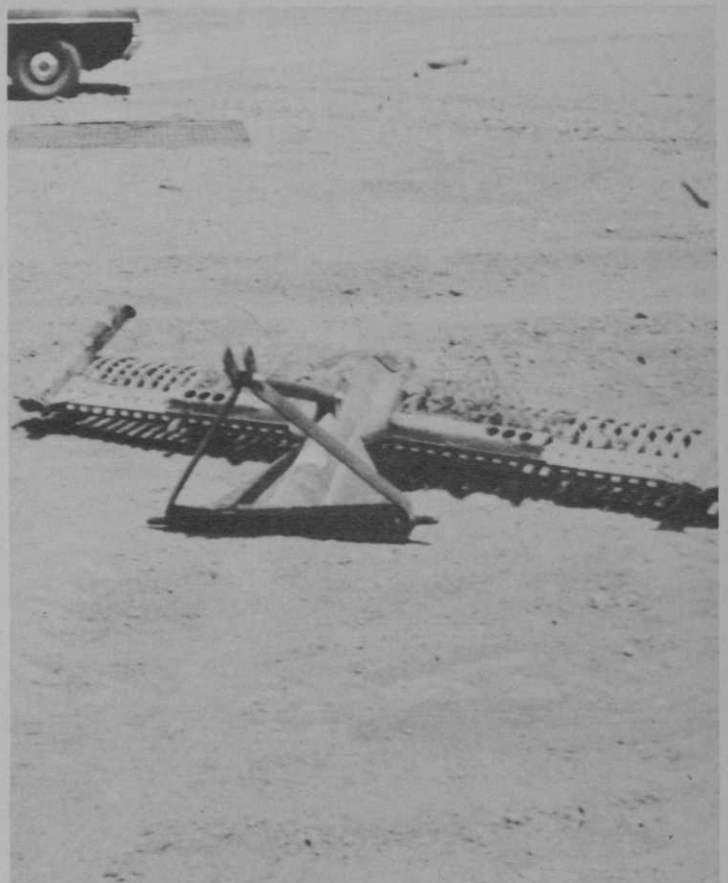
*Metal and concrete were all that was left of the city of Vanport, the site on which Delta Park was built. The city housed 40,000 shipyard employees and their families during World War II. In 1948 it was obliterated by flooding from the Columbia River.*

*Senior engineer Allyn Staley, who headed up construction, examines the remains of a materials storage building burned by vandals.*





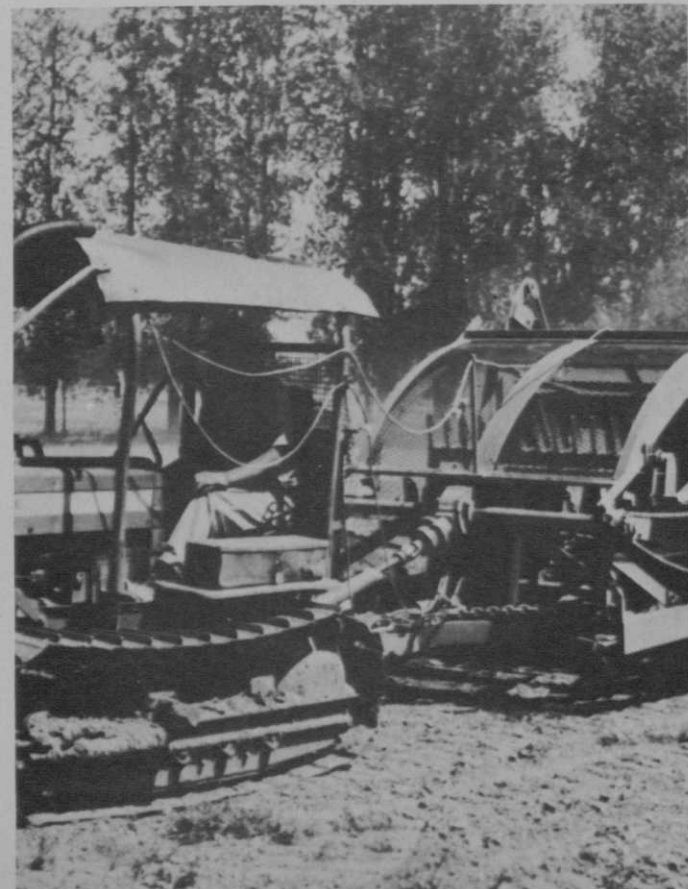
*Rocks were everywhere. They had been originally brought in as a base for the streets, foundations and driveways of Vanport City.*



*One of the most invaluable pieces of machinery that was used on the construction site was this rock rake.*

*Another piece of machinery that was used extensively during construction was a rock picker. It is estimated that 30,000 tons of rock and concrete have been removed in preparation for planting greens and fairways.*

*More problems! The stolons for planting the first nine holes were ruined in shipment by inadequate ventilation and refrigeration. The financial loss was covered by the supplier, but the time lost could not be made up by anyone.*





*Wherever golf is played . . .*

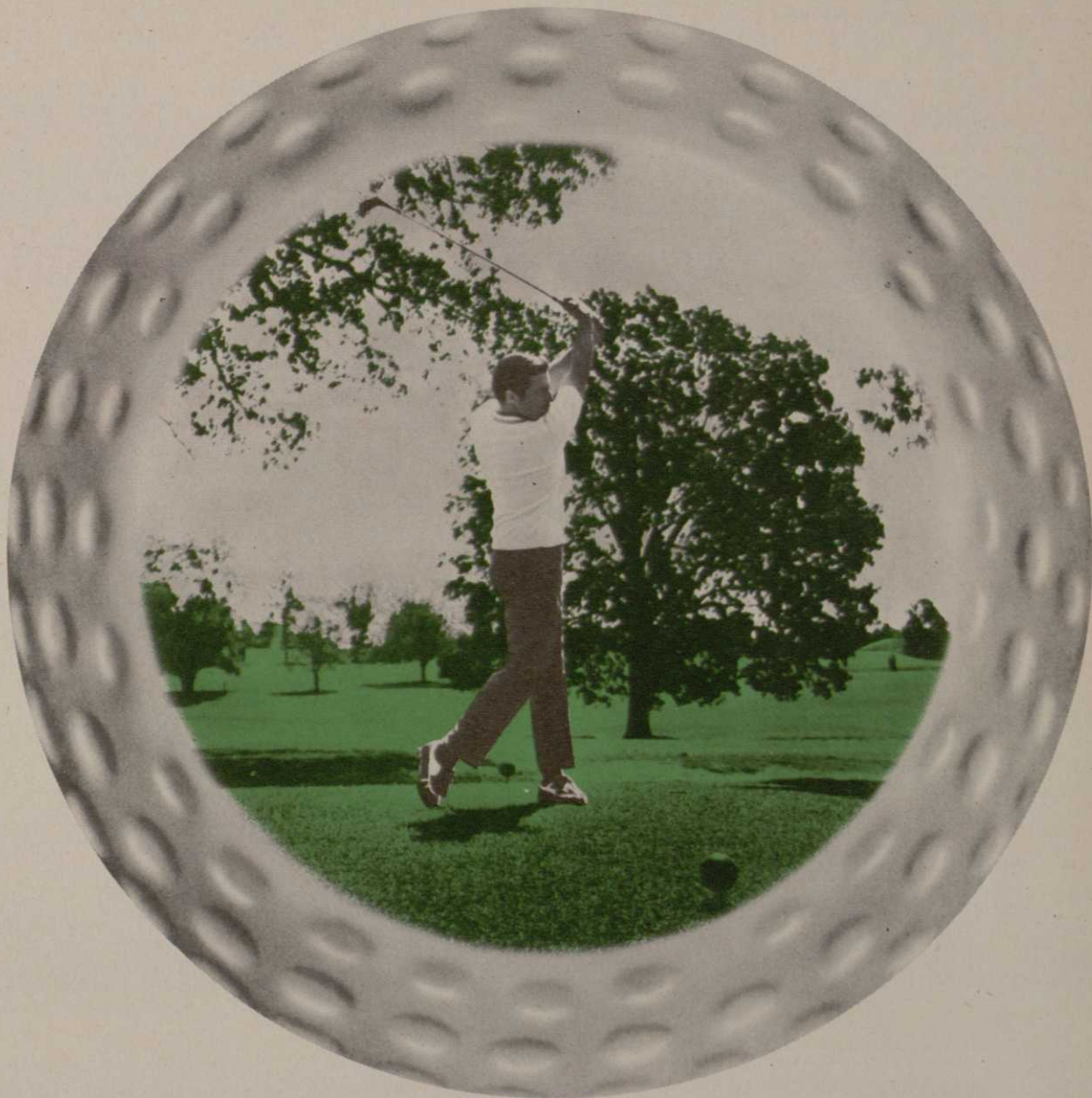
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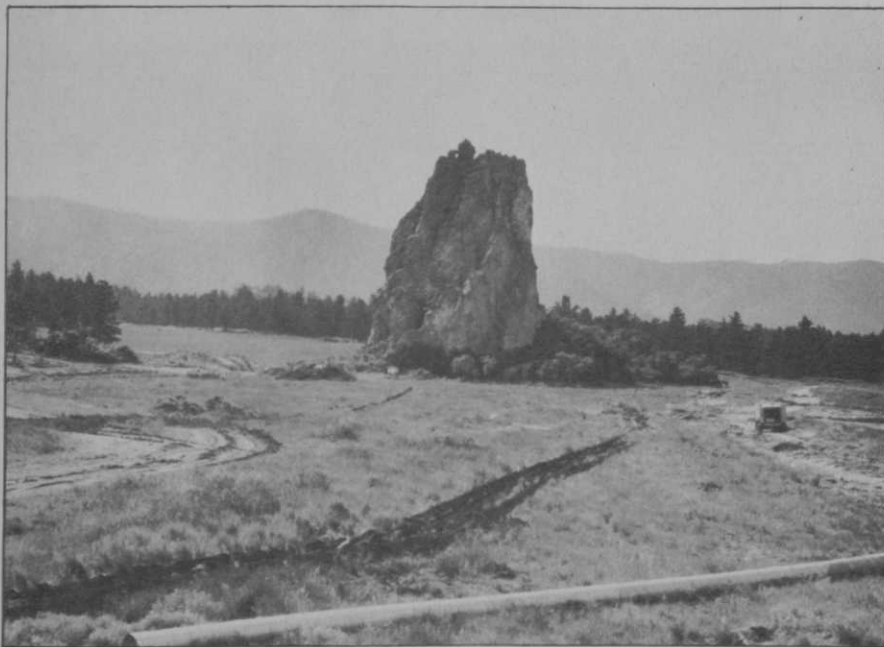
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# SPREADING OUT

By Jerry Claussen

National Golf Foundation Club Planning Consultant, Lakewood, Colorado

Not only are more new courses needed,  
but many older courses should plan to add holes.  
Some common guidelines  
can be used to help almost any type of course



Number one and 10 fairways at the yet-to-open Perry Park GC near Larkspur, Colo.



Vail, Colo., resort added first nine holes in 1966.



Site of number nine tee at Perry Park.

There seems to be no letup in sight in the demand for more places to play golf. Year after year the National Golf Foundation reports about 300 to 400 new golf facilities. In 1970 the total was 352. Of that number, 110 were additions to existing courses. Another 45 courses were replaced or completely rebuilt.

Many of the same problems and procedures involved in planning a new golf course apply to making an addition. But there are differences. The club or course already in existence has a regular clientele, reputation and policies. There is no problem of reaching new customers, nor usually of choosing a location. The owners or directors must only decide: 1) Is the addition or reconstruction needed? 2) Is the room available? 3) How will the club pay for the addition? 4) Who will design and build it? Some fairly common guidelines and practices can be used to help answer each question for almost any course.

## Feasibility

Several factors enter into answering the question: Is it needed? The answer depends on how many persons are using the present course and the average number of rounds being played weekly during the golf season. In a fast-growing community, it is also important to predict the potential play.

Here are some standards to use in common situations. The typical nine-hole private club in a small city has between 150 to 250 family memberships; usually about 75 per cent are golf members, the rest are social. Out of 200 family memberships, 100 men, 35 women and 15 juniors may be considered regular golfers (playing at least once a week). If these and other golfers are playing an average of two to three times a week, the nine-hole course might host 400 rounds weekly, or about 2,000 rounds monthly. Any figures higher than 200 family members, 150 golfers or 2,000 rounds monthly usually crowds a private nine-hole club.

An 18-hole private club can also get too crowded, but on a larger scale. The range of such clubs' rosters is between 200 to 600 members, with the average about 450. Out of these might come 200 men, 75 women and 25 juniors playing regularly, and others occasionally. This can produce nearly 1,000 rounds