

Fred Burkhardt has done a nifty job of landscaping in the rock garden he has installed at the Westwood Country club, Cleveland, where he is greenkeeper. The garden encloses a flagstone walk that winds its way from the locker-room entrance up a slope to the eighteenth green.

structed in such a way that the cost of drainage is reduced to a minimum.

Sand traps on the wettest clay soil, for example, can be constructed so that no drain pipes are required.

Watering is another important consideration in the cost of upkeep. In certain soils and under special climatic conditions it may be possible to do without water at all.

As an example, at Moortown, England, where the pros commended the course so highly, the greens were made with a water-retaining humus and sodded with grasses which require a minimum of moisture, so that in the last 20 years there has never been any occasion when it has been necessary to water them. In other climates it may be necessary to have a complete watering system for the greens and fairways.

This should always be designed by a skilled water engineer. There are not more than two or three in America who are capable of designing a first-class hoseless system, and even these are learning by experience daily. In lessened cost of upkeep a hoseless system not infrequently pays for itself in three or four years' time.

There are many other factors which increase the cost of maintenance. Take the question of bunkers for example: Most golf courses have far too many bunkers and this increases the cost of sand tremendously. Where sand is expensive bunkers can be made so as to require a very small amount and yet be equally effective. On inland courses coarse sand should be used so that it will not blow out of the bunkers.

Too Many Bunkers

Bunkers should rarely be made from a penal point of view. Strategic principles are the only considerations which should influence one in placing bunkers. On the Royal Sydney and Australian golf courses some years ago I advised them to convert more than 100 bunkers on each course into grassy hollows, constructed so the mowing machine could be put through them. Visitors from Australia are unanimous in telling me how much these courses have improved, not only in pleasure and interest, but as tests of golf. The cost of upkeep has also been lowered considerably.

Some greenkeepers make the mistake of spending too much money on golf courses. Faults of commission are more common

than those of omission. Golf courses can be easily overfed. A good green will remain good if the grass cuttings removed in the mowing are replaced in the form of a compost and well brushed in. Excessive alkaline fertilizers will bring up weeds and create a great expense in hand weeding. Excessive acid fertilizers may, on the other hand, accentuate brown patch and other evils. Beware of over-doctoring!

Use Birds and Animals

Before killing off birds and animals that appear to be doing harm to a course it is as well to make further investigations as to the possibility of them doing good.

Birds, for instance, that are pecking up greens are in reality helping to get rid of grubs, culworms, etc., which if left alone will do infinitely more harm than the birds.

In Scotland there are many golf courses kept by a greenkeeper and thousands of rabbits which are much better than others on similar ground kept by a dozen groundsmen.

In Britain there are seaside courses which have been ruined by killing off the rabbits. The amount of harm they do is infinitesimal compared with the good they do in keeping courses free from weeds and coarse grasses.

In conclusion I would like to emphasize the importance of lessening the cost of maintenance or having the best expert advice in regard to drainage, watering and other problems.

Make certain that your layout is final and that you will not in subsequent years be continually making alterations and so-called improvements.

The best advice is always the cheapest in the long run. Many clubs would actually save money by having their courses completely reconstructed and all of them would benefit by having expert advice once or twice a year to prevent them wasting their money in doing things that are harmful to a golf course.

John McNamara, Greenkeeping Expert, Dies at Pittsburgh

PITTSBURGH, Pa.—John McNamara, greenkeeper for the Pittsburgh Field club for the last 12 years and for the 16 years prior to that greenkeeper for the Pittsburgh C. C. which he helped to build, died here September 1.

McNamara, a capable and quiet man of

high achievement in his field, was born in 1871 in County Limerick, Ireland. He went to England when he was 20 and followed the profession of gardening until he came to Pittsburgh. John had been ailing for some time but made a sturdy struggle to get right by keeping his mind on his club work and on his duties as treasurer of the National Association of greenkeepers. He was one of the organizers of that body and served two terms as a vice-president. His widow and four children survive him.

Greenkeepers Set Feb. 4-7 As Louisville Show Date

SHOW committee of the National Association of Greenkeepers of America, headed by Fred Burkhardt of Cleveland, has set on February 4 to 7 as the time of the association's third annual convention and exhibition.

The exhibition will be held in the Armory, across from Hotel Kentucky. Program sessions of the convention will be held in a room in the Armory adjoining the exhibit space. This year the association hopes to be able to get the half-fare deal through with the railroads as a minimum of 150 registrations for reduced fare rates now is required by the transportation people against the 250 demanded at the Buffalo convention. Arrangements will be made by the association to handle the rebate applications so the boys will come to the show conversant with the procedure necessary.

Details regarding exhibition space may be secured from Chairman Burkhardt at 405 Caxton Bldg., Cleveland, O. Other members of the show committee are Grange Alves, George Davies, Lewis Evans, Victor George, Emil Loeffler, John MacGregor, John Morely, Walter Reed, Capt. David Rees and Herbert Shave.

NOTIFY GOLFDOM
of your change
of address when your
club closes its season.

Fertilizing Program for Florida's Special Needs

By C. R. ENLOW*

Associate Agronomist, Florida Experiment Station, Gainesville

WITH proper watering and fertilizing, it should not be extremely difficult to keep turf beautiful anywhere in Florida, even on the very sandy soils. We have four good fairway grasses. *St. Augustine grass*, a coarse but vigorous grower, probably the most common fairway grass in the state, well adapted to good soils and responding to water and fertilizer even on the sandy soils; *Carpet grass*, which makes a beautiful fairway on the lower, more moist soils; *Centipede*, much better adapted to the drier sandy soils, and unable to stand as much water or fertilizer as Carpet or St. Augustine; and *Bermuda* which does very well on heavier soil types, responding particularly to clay and marl. *St. Lucie grass*, which is classified as a Bermuda, seems to hold its stand better than common Bermuda on the poorer soils.

Most of these grasses have their weak points. For instance, St. Augustine is the only grass of those mentioned which grows well in shade, and it is not exceptional in this regard. The main weakness of St. Augustine grass is its susceptibility to chinch bug attack during dry spells in the summer. Centipede sometimes turns yellow during periods of prolonged rainfall, and we received several reports last summer of it dying back in spots, later recovering. This trouble was reported concerning Centipede at the time of its importation from China. However, it is rather uncommon in occurrence. Carpet grass will not hold its stand and keep a good sod except where moisture is plentiful, while Bermuda generally thins out, allowing weeds to come in.

By selecting the grass best suited to the soil and moisture conditions, it should be fairly easy to keep a beautiful fairway if kept mowed and if fertilized properly. There are numerous fertilizers on the market, many of which give very good results, and it is not our intention to detract from their use. It is very important that

fairways be fertilized in order to keep the grasses healthy, vigorous and to maintain the desired green color. In order to do this, phosphorus, potassium and nitrogen are required, but the main element needed is nitrogen.

It has been proven by investigators that nitrogen is the most important element required for young plants, and grass is no exception. Practically all plants when young contain a much higher percent of nitrogen than at a more mature stage, and when grass is mowed continuously it is kept young. If we wish to keep it vigorous we must supply the nitrogen in the form of some nitrogen fertilizer.

When a fairway is mowed and the clippings left on the lawn, they do not only return much plant food to the soil but help maintain the organic material in the soil. This organic matter, consisting of decayed roots and leaves, helps hold moisture, encourages bacterial action and otherwise tends to make the soil a better medium for growing grass.

Fertilizing Advice

But to get back to the fertilizer question. In these clippings are found potassium, phosphorus and nitrogen compounds which are lost if the clippings are removed. If the clippings are left on fairways practically no loss in potassium and phosphorus occurs as these two elements do not leach readily from the soil during rainy periods, consequently it is not necessary to apply them often. Nitrogen, however, is lost readily in our Florida soils by leaching, although not so rapidly under grass as in cultivated soil. Considering the importance of this element in keeping lawn grasses in vigorous growing condition, it is easy to understand the importance of maintaining a supply of nitrogen in the soil. The ideal way, no doubt, of supplying the nitrogen would be in the form of manure. This generally brings on other troubles, however, in the form of insects and attendant small rodents. Very good results are secured by

*In "Beautiful Florida"

using commercial nitrogen fertilizers, applied frequently in small quantities. The nitrogen in these fertilizers is soluble in water, however, and if applied too heavily, leaches from the soil and is lost.

Experiments conducted on heavy soils in other sections of the country show quite conclusively that nitrogen fertilizers which tend to make the soil more acid, such as sulphate of ammonia, discourage weed growth while encouraging grass growth if not carried to excess.

Our results at the Florida Experiment Station on Norfolk sandy soil over a period of five years have not been conclusive on this point, except that Carpet grass seed germinated much better and made more rapid growth where sulphate of ammonia had been applied several years than following a fertilizer which made the soil less acid. An experiment comparing several nitrogen carrying fertilizers on Bermuda and Italian rye grass was started in 1928 but no conclusions can be drawn at this early date.

From the results obtained at the Florida Experiment Station on lawn fertilization and from many instances observed over the state, it seems advisable to recommend very light applications of potash and phosphate. One or two pounds of muriate or sulphate of potash and four or five pounds of acid phosphate per 1,000 square feet of turf applied once each year should more than take care of the requirements of the grass for these fertilizers. Two or three pounds of nitrate of soda or sulphate of ammonia per 1,000 square feet of turf should be applied each month in order to take care of the nitrogen requirements of the grass. While nitrate of soda or sulphate of ammonia is recommended, many other nitrogen fertilizers give good results. One very satisfactory mixture consists of $\frac{3}{4}$ cottonseed meal and $\frac{1}{4}$ sulphate of ammonia, applied at the rate of 10 or 15 pounds per 1,000 square feet as needed. The effect on the grass lasts much longer than sulphate of ammonia alone, and makes fairway fertilization less of a burden.

Such a mixture never burns the grass; likewise with such a mixture it is doubtful if additional phosphate or potash need be applied as the cottonseed meal contains an ample quantity of both. In this connection it is advisable to apply fertilizers when the grass is dry, and not while wet with dew or rain. It is also advisable to water the grass after applying fertilizer,

particularly if a heavy application is made, as any of the fertilizer adhering to the grass leaves may burn them. This is always true if the grass is wet, when the fertilizer is applied.

All of these fairway grasses will respond to top-dressing with good fertile soil. This consists of covering the grass with one-fourth to one-half inch of good clay loam or compost. By covering surface runners in this manner, increased growth is stimulated, and also much plant food is added in the top-dressing. Many people rely on this method entirely to keep their grass in condition while others rely on fertilizers alone. An occasional top-dressing is very beneficial, and works in very well with the fertilizer program. It should not be necessary to top dress more than once each year if that often.

In the majority of cases, nitrogen alone will take care of this fertilization. Heavy applications of phosphate and potash fertilizers are unnecessary and often hinder rapid growth of lawn grasses. This is particularly true of Centipede grass, and is more noticeable on the lighter soils.

Checking Course Costs on Percentage Basis

ONE of the veteran green-chairmen of the country finds that he and his greenkeeper get the clearest sight of their course costs when the expenses are cast up on a percentage basis.

The percentages for the last two years at this club follow:

	1927	1928
Salaries and Wages—	%	%
Greenkeeper .....	.1336	.1265
Labor .....	.5741	.5454
Maintenance of Equipment—		
New parts and repairs....	.0471	.048
Gas, oil, grease.....	.033	.0314
Maintenance Water System—		
Charge for use.....	.0362	.039
Repairs, etc. ....	....	.0123
Upkeep Supplies—		
Grass seed .....	.0132	.01
Mushroom soil .....	.107	.0632
Other materials .....	.0166	.078
Sundry Supplies—		
Small tools and hardware; flags, cups, poles, etc.;		
paint, lumber, etc.....	.0156	.0115
Replacements—		
Sand for traps.....	.0208	.0290
Miscellaneous .....	.0028	.0057
	100	100



Audubon starts to work on changing its first green with a force of fourteen men

Correct Green During Six Day Stop of Play

By A. G. CHAPMAN

Green Chairman, Audubon C. C., Louisville, (Ky.)

THE local weather bureau recorded unusually heavy rainfall in the month of June, followed by the least precipitation in the month of July of any July for fourteen years, with one exception.

One of the old greens (No. 1 at the Audubon C. C.) was not constructed to successfully meet and cope with these pranks of the weather man, and could not respond to the special treatment given it in an effort to bring it back. The surface drainage was poor; the soil was heavy clay beneath a thin top layer, and there was practically no underground drainage.

Being in the midst of the season, with a tournament coming on and no relief green to be used, the situation looked hopeless, or very embarrassing at the best.

At a meeting of the Greens Committee, where gloom was the predominant feature, the young superintendent, C. O. Bohne, made the statement that he could rebuild this green on Monday and play on it the following Saturday. The committee felt this to be impossible, but even if the green was out of play for three weeks it would be better than trying to play on the old one that was getting worse all the time. So Mr. Bohne was given carte blanche and this is what happened:

Start Record-breaking at Dawn.

At 4:15 o'clock the following Monday

morning fourteen inexperienced men reported for work, at 40 cents per hour. The old sod was lifted; 297 feet of 4 inch tile was arranged 36 inches deep, the trench being filled with 26 cubic yards of cinders to within 12 inches of the old surface.

At 11:30 o'clock, the same morning, this crew was replaced with fourteen other men who worked until 7:15 o'clock that night.

The following day the double shift was again used; 7,540 square feet of Washington bent sod was removed from the nursery and placed on this pulverized, carefully prepared soil, rolled, top dressed, watered, and at 1:30 p. m. of the third day the job was complete.

Nine inches of soil was taken from the forward half of the old green and placed on the rear. The traps were doubled in size to furnish sufficient earth to make a perfect 3 per cent grade over the entire surface of the new green.

Twenty-two cubic yards of humus, and 22 cubic yards of coarse, sharp sand were scattered over this surface, together with 50 lbs. of 44 per cent phosphate; 50 lbs. of sulphate of ammonia, and 150 lbs. of arsenate of lead for grub-proofing; all exactly as advised by the Green Section. This was thoroughly mixed with the top 8 inches of soil, the double disc harrow going over it



On the sixth day the re-made green was in play and caring for week-end traffic

twelve times, making it in approximately perfect condition to receive the sod.

One of the accompanying pictures was taken on the second day while the work was in progress; and the other picture shows the players on the green the sixth day. There were 315 games of golf played over this green on the sixth and seventh days (Saturday and Sunday), with no signs of injury, and it has been in constant play ever since.

The following items of cost may be interesting:

Labor	\$272.90
Fertilizer	25.10
Cinders	24.70
Sand	46.12
Tile	8.90
Humus	44.00
Estimated overhead 15% ..	46.44

Total\$468.16

Keeping Greens in Winter Play

By DENNIS CROWLEY
Greenkeeper, Woolaston Golf Club

FALL preparation of greens to be open for winter play begins at Woolaston about September the twentieth. At that time the machines are raised a little; and then raised successive weeks until by October fifteenth they are just clipping the tips of the grass sufficient to keep the green putting true. When growth slackens they are cut only every other day.

During the middle of October every green on the course is given a good top-dressing of fine, sharp sand and compost mixed half and half. The roots of the grass will have this covering and will not be so badly injured by all the tramping, drying out, and other ills which come with winter play. The compost used in the above mixture is made of twenty per cent stable manure and eighty per cent good loam. The dressing is applied at the rate of three quarters of a cubic yard to an average green of 5,000 to 6,000 square feet.

Before the ground freezes it is a good

plan to cut several holes in different places on the green, fill these holes with newspaper and replace the plugs. Then later during thaws, play can be shifted around the green by simply lifting out the inner cup and putting it into one of the holes previously made. Thus the green is saved by preventing concentration of play.

The formation of ice is guarded against by proper surface drainage, but in time of thaws followed by quick freezes ice may gather. When this occurs break it up with a wooden mallet as soon as possible and remove.

Snow mold is apt to appear along the edge of snow banks during winter thaws. Southern exposures must be watched closest. The better plan is to remove the banks of snow, but when this is not feasible the active fungus can be checked with little damage by rubbing with the back of a rake. Do this while the ground is still moist. When the ground is dry and cold growth of the fungus need not be feared.

Finally it might be said that greens must be in good condition going into the cold weather if they are to survive heavy play. It has been my personal experience that bents stand up best under hard use.



Here is where America's rubber magnates have their golf headquarters; it's the Portage C. C. clubhouse at Akron (O.)

KEY TO PROFITABLE OPERATION IS Social Memberships REVEALS INVESTIGATION OF JACK FULTON, Jr.

WHEN a country club discovers, after several years of operation, that its annual income has an exasperating way of falling short of annual expenses, despite the greatest care by the board to budget intelligently and operate on an economical basis, propaganda is pretty sure to start for the establishment of "social" memberships, carrying all club privileges except golf. Behind such memberships is the theory that in any community there are a certain number of desirable persons who would make fine additions to the membership personnel, but because they, at present, have no interest in golf, cannot be interested in joining the club. By offering a non-golfing membership to such desirable prospects at a cost somewhat below the price of full club privileges, a number of them can be brought into the club.

Thus, through an increase in membership, clubhouse business is augmented; the dining room has a chance to break even on the year, and the income of all other departments within the clubhouse picks up. Yet with all this boosting of clubhouse business, the golf course carries the same traffic as before, since these social memberships do not include use of the course.

These, broadly outlined, are the common advantages claimed for social memberships, against which are several points that bespeak caution before taking the step. Chief among them is the question of whether the increased use of the club's departments will return a profit adequate to permit an enlarged social program. Obviously, added emphasis must be placed on dances, card parties, and other social events to attract and hold the interest of the social members so they will continue to patronize the club.

If the club in question has in the past been strictly and solely a golfing proposition, the decision to sell social memberships will entail a considerable change in the club's organization, in its yearly budget, and in the number of employees. Such a club will do well to weigh carefully the physical and financial cost before making the change.

Another argument frequently heard against establishing social memberships is to the effect that by enlarging the entertainment program, featuring the dining service and playing up, through well-directed publicity, the advantages of belonging to the club, enough local prestige can be built up to make a regular full-price membership in the club a social pre-

rogative of the community. Men who do not golf will join at regular initiation fees and at regular dues because they and their families must have access to the social headquarters of the town.

Without this aura of exclusiveness, the non-golfing prospect will answer, with justification, that he can see no reason why he should pay for golf privileges when he does not intend to take advantage of them. But if belonging to the local country club is "the thing to do," if it fills an important niche in the community's social scheme of things, it is a different story; the non-golfer will join even though he must pay for privileges he will never use.

Here are some of the factors that should influence a club's decision for or against creating social memberships: Has the club tennis courts; a swimming pool; frequent dances; frequent bridge parties; facilities for horseback riding? Is the club near enough to town to compete successfully against local restaurants, movies, road houses and dance halls?

How about the other golf clubs in the district; are they better equipped to handle non-golfing business? Have any of these neighboring clubs social members at present, and if so, how well do local residents react to the opportunity? Why would a non-golfer prefer your club to these others?

Prohibition has affected the problem to a greater degree than most people realize. Where formerly there were restaurants and other havens for better class people who wanted to step out in lively, but well-behaved fashion, there is no place to go nowadays with the exception of road houses, which are run wild and loose, and are on the taboo list for these residents. Hence, where careful scrutiny of applicants before admission is practiced, there is considerable lure to a golf club membership, even without golfing privileges.

Recently GOLFDOM circularized a number of golf clubs throughout the United States on the social membership question, and found that this type of membership is offered in about one club out of six. Since this mailing intentionally was made to clubs located near the larger cities, we believe this proportion is low as compared with figures on the country as a whole; there are fewer counter attractions to a country club membership in smaller communities.

Returns indicated that dues for social memberships are generally about 60% of the regular dues, while initiation fees are

made very nominal. No equity in the club's assets goes with them, nor are these memberships subject to assessments. Some of them permit week-day use of the golf course on payment of regular green-fees; others prohibit a social member from the course at all times, even as a guest of a regular member.

Golf clubs fortunate enough to have a full membership roster and that glory of glories, a long, healthy waiting list, sometimes find it advisable to create a class of associate membership for those on the waiting list. In such cases, regular memberships are sold only to associates within the club.

To an applicant, the privilege of belonging as an associate member, until such time as his name comes up for regular membership, gives him the opportunity to mingle with his future clubmates and select his particular cronies, and permits him to participate in all club activities except golf.

To the club, this creation of a membership to include the waiting list brings a certain income to the club otherwise lost, and increases the departmental business within the clubhouse.

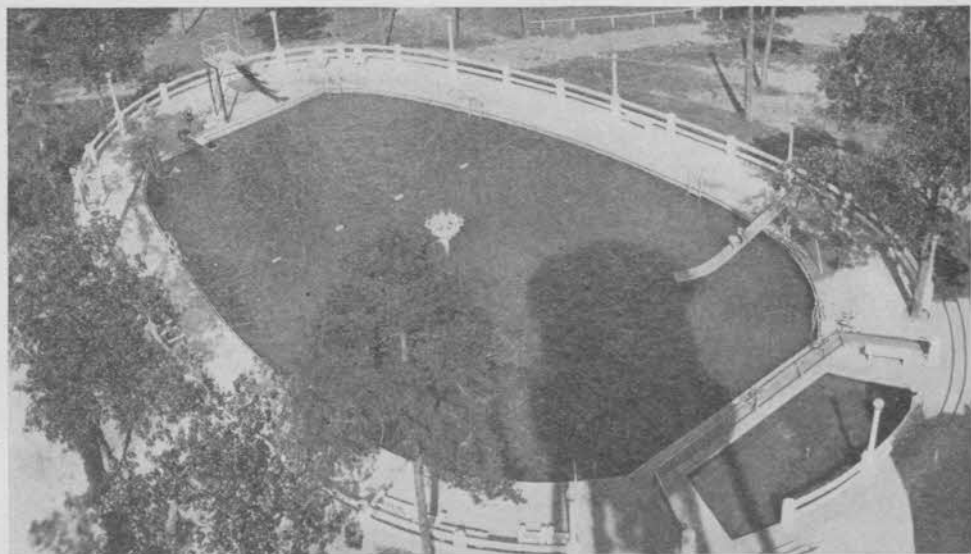
Then, too, just as it is a human failing to want whatever is hard to get, so the creation of an added step in achieving full membership in the club adds a certain lure to it. Clubs with a waiting list find selling memberships much simpler than clubs with partially filled rosters.

On the whole, clubs will benefit from the creation of social memberships. Nearly every community contains a number of men who would be interested in joining under such a plan, and even though the opportunity is grasped by only a dozen or so men, the added house business from them and their families justifies the step. It is the simplest way to secure volume house business without increasing course congestion.

BURKE ANNOUNCES LINE FOR PROS ONLY

A new headliner in the Burke family of clubs is a line of woods and irons that will be distributed only through professional shops. Both woods and irons are supplied in registered sets; the wood clubs in sets of three or pairs, and the irons in sets of six or nine. Iron heads are chromium finished.

The new clubs are packed in handsome boxes instead of the canvas carriers previously used.



This swimming pool at Little Rock (Ark.) C. C. cost about \$15,000. It is a very popular facility

CLUBS RARELY REGRET INVESTMENT IN Outdoor Swimming Pool

HERE ARE TWO SUCCESSFUL EXAMPLES

By WESLEY BINTZ

DURING the early spring of 1926, W. W. Johnson, the president of the Little Rock (Ark.) C. C., told the writer that they were interested in the construction of a swimming pool for their club. After a personal interview, instructions were received to proceed with the design of the pool for this location with the following dimensions and sizes:

The pool proper is built back of the club house on a hill looking out over the club grounds and is a combination sunken pool and Bintz pool. The pool is 65x100 ft. ovoid with squared ends. The pool proper has an area of 5,611 sq. ft., a volume of 189,000 gallons and varies in depth from 3 ft. to 9 ft. The concourse floor around the entire pool varies in width from 10 ft. to 18 ft. 3 ins. It has an area of practically 4,000 sq. ft.

On the edge of the concourse floor, as noted in the picture, is a children's wading pool measuring 12x25 ft., varying in

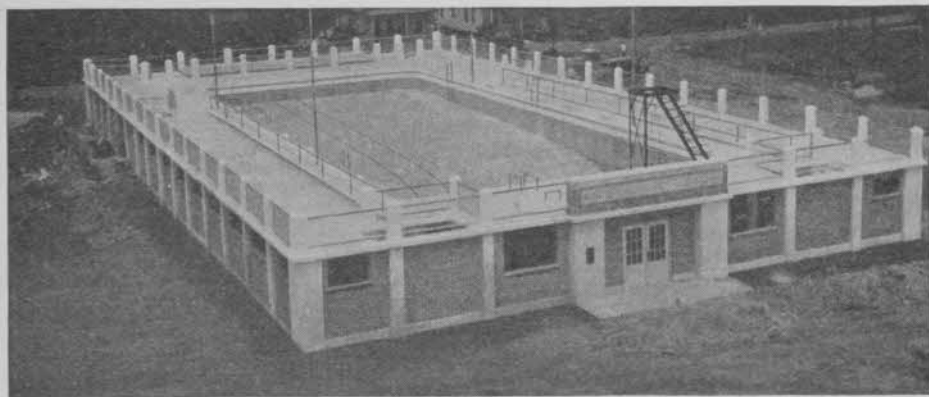
depth from 6 ins. to 18 ins. It is surrounded by a pipe and wire fence so that the youngsters cannot wander into the pool proper.

Under the concourse floor in the far end of the pool is a room practically 12x30 ft. in which there are control valves and a pump and motor for the operation of the pool.

On top of the concourse floor you will notice a full, reinforced, concrete railing with lamp posts, giving it a very beautiful effect. You will notice an all-steel slide, a seven-board high dive, a springboard, eight ladders, six depth signs, guard rope with seven wooden floats and an electrical fountain. The pool is also provided with a scum gutter around the entire pool 12 inches below the top of the concourse floor.

Pool Is Reservoir

The pump, mentioned above as being located in the room at the rear of the pool, is used to pump water onto the greens



At Jacksonville (Fla.) Lackawanna Park has this combination swimming pool and locker-room layout

during the night from the pool. They lower the pool about one foot to eighteen inches during the night and then make up the pool with fresh water, which keeps it at all times in a very good state of condition for pool water. By this method they do not waste any water and get a double use of the water by using it first in the pool and then on the greens.

This pool cost about \$15,000. The pool has been very popular with the club and was built by an assessment on each club member. According to Mr. Johnson, it has been money very well spent and used.

A Public Course Pool

Swimming pools are demonstrating their earning capacities and trade-attracting values at daily fee courses to the extent that the next few years will probably find the pool considered as a vital and profitable detail of the fee course. The park installations give the best idea of what the eventual first-class daily-fee course pool installation will be. One of the country's ideal small park pool installations is that at Jacksonville, Fla., where Joseph E. Byrnes, executive manager for the city's recreation department, arranged for the job at Lackawanna Park.

This pool is 45x105 feet with overall dimensions of 80x150 feet. The bathroom area is under the wide, spacious concourse floor around the pool. Entering through two 2¼-inch solid white pine glazed doors, we pass into a large waiting room measuring 15x46 feet. Here is a nice, beautifully paneled and decorated counter 16 feet long with an oak top and two ground-glass railings on it, with shelving and keyboard back of the counter. The keyboard takes

care of 440 lockers and there is practically 120 feet of shelving space. We also find here about 20 feet of space to be used for a hanger system to augment the locker system during rush hours. To the right and left are grand stairways leading to the concourse floor for the spectators, each of concrete construction, and having a width of over 6 feet. Under the stairway to the left we have a first-aid room, and under the stairway to the right we have an office, each being 9x9 feet.

Let us now take a turn to the left and go through the women's locker room. We find a vanity counter 5 feet long, a drinking fountain and 160 12x15x24-inch steel lockers. There are 24 dressing rooms for the women, each being 2 feet 6 inches by 3 feet 6 inches, and eight shower rooms of the same size interspersed among the dressing rooms. With this system the women make their change in privacy, take a shower, put their clothes in a sanitary, steel locker, release the dressing room for others, and proceed to the pool. We are now at the base of the women's stairway, where they have their toilet room with three toilets, two lavatories and a vanity shelf. The women are now ready to pass up to the pool.

Let us now go back and turn to the right in the entrance room, where we enter the men's dressing rooms. Here we find a "vanity" shelf, a drinking fountain and 280 12x15x42-inch steel lockers. There are seven changing benches, each 10 feet long, and a shower room with six showers, this room being practically 9x12 feet. This brings us at the base of the men's stairway, where we find the men's toilet room