

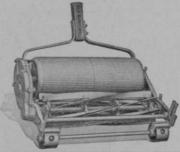
The "New" Fairway Quint being pulled by the 6-cylinder PENNSYLVANIA Tractor.

## What's your cost per mowing mile on greens and fairways?

If you are considering new mowing equipment for greens or fairways, it will pay you to remember the half-century-old reputation of PENNSYLVANIA Quality machines for maximum mowing mileage at a minimum cost per mile.

You'll be interested in our attractive GOLF CATA-LOG, illustrating and describing the PENNSYL-VANIA "New" Fairway Quint or Trio, the PENNSYL-VANIA Tractor, the Super Roller and New Aristocrat greens mowers and all the other PENNSYLVANIA golf mowers.

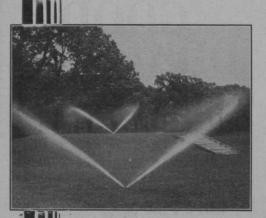
PENNSYLVANIA LAWN MOWER WORKS 1628 North 23rd Street Philadelphia, Pa.



The famous Super Roller Greens Mower



### What Cost Fairway Water System?



### Suit the Cost To the Purse

Don't let the bugaboo of cost prevent you from enjoying the benefit of modern fairway irrigation. Our organization will gladly show you how the cost can be made to fit the amount of money available. The figures below are to help you decide what you want.

\$10,000 - \$12,500 Covers cost of 18 hole Hose System if you have ample water supply with minimum residual pressure of 50 pounds at farthest outlet.

\$12,500 - \$15,000 If there is plenty of water, but the pressure is too low, add \$2,500 to the above cost for a pressure pumping plant.

\$20,000 Gives you an 18 hole Fairway Hose System of permanent (75 to 100 years) construction. Add \$8,000 to \$12,500 for California Hoseless Fairway System.

\$25,000 Covers cost of permanent 18 hole Hose System for Fairway, Tees and Greens. Add \$8,000 to \$12,500 for California Hoseless Fairway System.

\$33,000 - \$37,500 For complete 18 hole Hoseless System for Fairways, Tees and Greens, permanent construction, Automatic Pumping Plant. The ideal installation.

The above figures are of course merely estimates, and will vary with different courses. However, if you want fairway watering, you can have it. Write us for details.

### WENDELL P. MILLER and ASSOCIATES

105 W. Monroe St., Chicago

85 E. Gay St., Columbus, O.

Consulting Engineers

Eastern Engineering Representatives for BUCKNER-CALIFORNIA Hose and Hoseless Systems

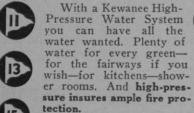
DRAINAGE

IRRIGATION

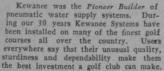
TURF DEVELOPMENT

HE past summer has shown the folly of golf courses with a 'skimped" supply of Insufficient water. water means that greens can be sprinkled only every few days. Then a few weeks of blazing sun and they are ruined.





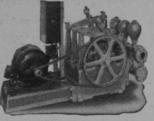






## WATER SYSTE

The Kewanee Triplex shown is made in sizes for from 1500 to 10,000 gallons per hour, with a lift of 20 feet. The Kewanee Line also includes a wide range of sizes for deep well quirements. 200 Models and sizes there's one just right for every club. LET US HELP: Our



engineers have helped many clubs solve their water problems. We will gladly dothe same for you. Just WRITE.

#### KEWANEE PRIVATE UTILITIES CO 414 Franklin St. Kewanee, Ill.

### A Longer Season— Happier Members . through

### GOOD DRAINAGE



Orinda-Oakland, Calif., is a great Armco drained.

HE longer playing season means a better-satisfied membership and a more successful club.

Prominent courses, coast to coast, know the value of improved fairways and greens -always dry, firm, compact-made so by a drainage system of Armco Perforated Iron Pipe. This product of champion endurance in service—of an unequalled 24-year record to date-goes just under the surface and carries off rain water as it falls. Standing water and soft spots are eliminated.

Ask any greenkeeper, course architect or engineer. Ask any professional. Armco Perforated Iron Pipe, longer lasting, is popularly preferred because logically more economical. Data of importance will be sent on request. Write.

Armeo culverts and drains are manufactured from the Armco Ingot Iron of The American Rolling Mill Company and always bear its brand.

ARMCO CULVERT MFRS. ASSOCIATION Middletown, Ohio

### This Power Means Sound Economy



The Fairway Tractor handles rollers with ease over flat or rolling ground.



Plowing new fairways at the Monagh Lea course near Portland, Ore.

LOOK over the pictures on this page and you will see why it is sound economy to include the purchase of a McCormick-Deering FAIRWAY Tractor in your 1931 budget. It is versatile, flexible, mobile power that has a proved reputation for reducing maintenance expense on the golf course.

It speeds up work during the playing season; it mows the fairways and cuts the rough in short order; it is invaluable for construction work; it completely fills every need for power and it is economical to operate. The nearest of 115 Company-owned branches and 42 distributors in the United States and Canada will give you information and a demonstration. Write us for catalog.

INTERNATIONAL HARVESTER COMPANY 606 So. Michigan Ave. OF AMERICA Chicago, Illinois



Horses cut up the turf—so this sod-wagon was hitched to the Fairway.



Cutting the rough is no job at all for the Fairway and this built-in power mower.



Invaluable for construction work. This Fairway is disking to prepare a good seedbed.



Fertilizer is spread quickly and easily with the Fairway and the McCormick-Deering Spreader.



The square-turn feature of the Fairway enables it to cut close to trees and shrubs.



A compact unit that combines with the Fairway to reduce maintenance expense.

The Golf Tractor M°CORMICK-DEERING FAIRWAY

### GREENKEEPERS!

Do not purchase your putting green mowers or complete your budget until you see our announcement in the next issue of Golfdom.

A marvelous greens machine, for which the Courses of the World have been waiting, will appear.

Again the Worthington Company leads in supplying what progress demands.

The call has been for a perfect power greens cutter.

### THIS MACHINE IS THE ANSWER! IT'S HERE!

It is a Worthington product.

A great time saver. Absolutely reliable. Makes the smoothest possible cut.

No club can afford to be without it. Wait to see the description of this wonderful improvement.

Guaranteed in every respect.

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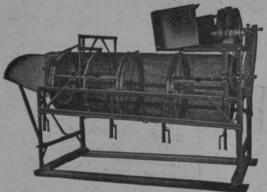
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## CONV



"Converse Screens Make Par Greens'

The most efficient method of preparing top soils or mixing or screening compost for top dress-

Model illustrated is driven by small gasoline engine mounted over discharge end.

Additional models for tractor or hand power.

One to four grades of material at one operation—

Capacity 2-6 cubic yards per hour-

Mounted on skids for easy transportation-

The Converse Rotary Soil Screen has been adopted by clubs, large and small, throughout the United States.

Order Direct from Manufacturer or from Leading Jobbers in New York, Chicago, Boston, Detroit, Pittsburgh, San Francisco, Richmond, San Antonio, Calgary, Atla., Lansing.

— BULLETIN ON REQUEST —

Manufactured by

F. S. CONVERSE CO., Box B, JOHNSON CITY, N. Y.



### This TONCAN IRON

drain
installed in
1910
is in
PERFECT
condition today

TONCAN IRON drains installed more than twenty years ago offer convincing evidence of the true economy of this iron alloy for golf course drainage.

TONCAN IRON Drain Pipe keeps the golf course dry and firm, free from surface obstruc-

tions, playable at all times. In addition, TONCAN assures proper drainage for years to come, since TONCAN is more resistant to rusting and soil corrosion than any other drain pipe metal.

The TONCAN IRON Drain Pipe Hand Book tells why TONCAN lasts longer, and costs less, than

other materials. Write for a copy.



### TONCAN CULVERT MANUFACTURERS' ASSOCIATION

MASSILLON, OHIO

Plants located in all Parts of United States and Canada

# PRICE

This comparatively new business of golf is going through an industry's usual experience in arriving at substantial buying standards.

There was the day when the biggest buyers bought mainly on first cost. The railroads bought carloads of shovels and track tools on price every year. The steel mills bought valves and belting yearly to the extent of a king's ransom, and entirely on price. Then, after a few manufacturers who were true to quality standards managed to get their products in on test, the railroads and steel mills found that quality at a higher first price was not only great absolute economy of buying but great economy of performance.

This golf business, now that it is on a billion dollar basis of investment, is learning the same old unchanging truth—quality is the only real bargain.

Those who know the history of the power mower business will

concede that the Roseman hollow-roller type mower brought into course maintenance equipment that was designed and built

Consider carefully the buying lesson that big business has been taught by costly experimentation and you will resolve to make quality your own buyword on mowers.

especially for high-speed tractor operation, instead of equipment built up from a hand mower, through horse operation, into an effort to withstand the severe punishment of tractor operation. The knowing ones realize that inability to compete with the exclusive patented Roseman design naturally centered competitive selling efforts on price.

As greenkeeping continues to progress along business lines and more records are available, the case for the Roseman mower is made plainer and stronger by a vast array of figures showing Roseman cost per year the lowest a golf club can get in grass cutting.

Just bare cost isn't all of the buying merits of the Roseman hollow-roller fairway mowers their design gives you assurance of

denser turf growth—
healthier root development—
prevention of scalping—
elimination of cuppy lies—
sealing of heat crevices—
retention of moisture in soil—

elimination of separate rolling clean, uniform cutting—

The Roseman is the only turf building mower that's made.

### ROSEMAN TRACTOR MOWER CO.

Makers of Roseman Hollow Roller Type Mowers for Fairway and Rough

810 Church Street EVANSTON, ILLINOIS

11 W. 42nd Street NEW YORK, N. Y. VOL. 4

NOVEMBER, 1930

No. 11

### Simple Little Tales of Figures Mark Greenkeeper As Business Wizard

By B. R. LEACH

There are no pleasant by-paths down which you may wander; the road is long and straight and dusty to the grave.—Napoleon's soliloquy on marriage.

Last winter a certain green-chairman confided to me that his annual session with the Board of Governors of his club was a bloody nightmare; that they ran him through an electric washer and hung him out to dry; that he simply did not have time to work up his costs and estimates in such a logical and concise order that they could be crammed down the throats of the hard-boiled board members with the minimum possibility of their choking to death in the process; that he was sick unto death of being green-chairman, etc., etc.

It isn't the first time I have heard this wail of anguish from a green-chairman. It seems to me that this sort of complaint is becoming altogether too general for the common good. As a casual bystander and observer of the golf course drama I might almost have the temerity to raise the question as to why some greenkeepers are so dog-goned scared of an account book and the adding and subtracting of figures involved therewith.

Of course we must admit that there are several extenuating circumstances as far as the greenkeeper is concerned. The standard of course maintenance has advanced so rapidly during the past ten years that greenkeepers in general have

concentrated on the task of perfecting themselves in all the tricks of so-called scientific system of growing grass, which, between you and me and the gate post, is not essentially different from management methods in vogue in the era of the gutta-percha golf ball. Of course, we had to lay off the use of lime for a few years on account of the scientists claiming that it was a vulgar and common commodity, but as we all know they had a change of heart and now we are using it again. In fact the scientists now claim that lime is so full of vitamins and nutrients and advantageous bacteria, etc., that it is really in a class with sauerkraut and other intellectual materials favored by the haute monde.

### Greenkeeper a Scientific Guy

At any rate, the greenkeeper has been pretty busy during the past ten years absorbing this scientific stuff, so that now even some of the real stiff-necked scientists somewhat grudgingly admit that the greenkeeper is as scientific as all get out. In fact the greenkeeper has become so doggened scientific that he has of necessity quit wearing ordinary long pants and suspenders and sallies forth to his daily arduous duties clad like a lily of the field.

Under the circumstances one would reasonably expect the golf clubs of this grand and glorious country to be entirely satisfied with the efforts of the greenkeeping fraternity and allow them at least a modi-

cum of time to glance at the stock market reports and the football scores. But, unfortunately, golf clubs, like all other collections of weak mortals, are *not* reasonable, in fact they refuse to recognize the meaning of the word.

#### The Battle of the Year

Consider the average green-chairman today, with a seasoned greenkeeper on the job. Such a chairman has what is colloquially designated as a lead-pipe cinch. The only occasion for any effort on his part is the staging of the annual fracas with the Board of Governors for the year's supply of jack, in preparation for which the gentleman must perforce burn the midnight oil and throw some figures together. Having been entirely ruined for useful effort by being able to throw virtually the entire responsibility of the course maintenance on the broad shoulders of the greenkeeper, the chairman now proposes to slip out of all the work connected with the account-book end of the racket and load it all on the greenkeeper, and you can't hate the chairman either for taking this stand.

So that nowadays more and more greenkeepers are handing the chairman the figures all tied up with a pink ribbon ready for the Board of Governors, and more and more chairmen are looking around for greenkeepers who can tie a sweet knot of baby ribbon around a mess of figures that will hold water.

Not long ago a greenkeeper in the New York area took me on a tour of inspection of his new soil shed of which he was decidedly proud, and justly so. Ample in size and well supplied with equipment, this shed was capable of housing a big pile of compost under cover where it could be screened and manufactured into topdressing by the workmen on rainy days.

#### Noted Expert in Research

After inspecting the shed we sat down on a couple of upturned onion crates, broke off the neck of a bottle of ginger ale and he told me the tale of how he had contrived to hornswoggle the price of the soil shed out of the hardest boiled board of governors in the sovereign state of New York.

"As you know," said the greenkeeper, "there isn't a meaner job in the world than trying to work wet compost through a sieve. Each year for five long years I told the chairman we were spending too much money preparing topdressing and ought

to have a soil shed, but my wise counsel didn't mean anything in his young life.

"Finally, realizing the futility of this course of action, I got damned good and mad and determined to adopt the tactics and methods of a real big butter and egg man. First I wrote the weather bureau and got the dope on the average number of rainy days occurring between March 15 and November 15 in this section during the past ten years. Then I took the average number of rainy days per year, multiplied it by the number of men we had hanging around here every rainy day waiting for me to turn them loose at 5 o'clock and then multiplied this figure by the daily wage of each man, and believe me this figure ran into real money.

#### Get Normal Figures

"Next, I held a stop watch on a couple of my toilers while they sieved a cubic yard of wet topdressing. One of these lads got scared because I watched him so closely and began to work real hard and I had to give him hell so as to make him slow down to normal, so that my timing wasn't entirely accurate, but it was good enough. Then I figured the labor cost per cubic yard on sieving this wet compost and multiplied this figure by the total number of cubic yards of topdressing used per year on the course.

"Adding the cost of sieving wet topdressing to the amount paid to the men on rainy days for doing nothing gave me the total cost of preparing topdressing as we were then doing it and, brother, you'd be surprised.

"Then I timed a couple of the lads while they sieved a cubic yard of dry compost, figured the total labor cost of topdressing preparation on this basis subtracted the sum paid the men for rainy days and showed by figures that no certified public accountant could crack that we would be actually making money by preparing topdressing from dry compost.

"Finally I figured the cost of a soil shed and equipment and thereby derived the annual overhead for interest, depreciation and upkeep, subtracted this from the sum saved by preparing topdressing when dry and disclosed the iron-clad fact that it was costing the club exactly \$762.44 per annum to continue doing without a soil shed.

"I worked up all these figures on a sheet of expensive bond paper, had it sworn to before a notary public and went to the chairman. He gulped down two stiff high-

#### Virtue's Reward

"As we were leaving he called me back, told me he had a company down in Texas that wasn't making expenses and asked me to take the presidency of said company at a salary of \$15,000 per annum

plus bonus. It certainly was a tempting offer but I explained to him that I loved greenkeeping as only a mother could love her wayward son and I could never be happy holding down one of those big-pay, nowork jobs. I left him with tears of disappointment in his eyes.

"So now you see," he continued, "that a greenkeeper nowadays must understand the basic principles of high finance if he is to maintain his prestige in golf club circles. Of course it involved a great deal of labor to work up the figures for that soil shed and they really should have taken my word for it that we needed the shed but these golf club lads must have the figures if you want to get anywhere in dealing with them."

At this point my friend's palate and tonsils began to act as though they were cracking on the surface so we broke the necks off two more bottles of ginger ale and communed for a few moments with nature at its best.

"Now you know as well as I do," continued the greenkeeper "that the average green-chairman isn't looking for work by a long shot and you can't hate him for it either. Also you are fully aware of the

#### IN GOLF CLUB CIRCLES:

A man who can supervise the routine work of a golf course is rated as a FOREMAN by those in authority.

A foreman who knows the theory and practice of fine turf management is a GREENKEEP-ER.

A greenkeeper who can decisively demonstrate on paper what it will cost to maintain the course for the coming year is a GOLF COURSE SUPERINTENDENT.

At present there is a surplus of foremen, an adequate supply of greenkeepers, and a decided shortage of superintendents.

Foremen are just 4½ inches ahead of the sheriff, greenkeepers have turkey on Thanksgiving, while superintendents are worrying about their investments.

fact that any greenkeeper desiring to be considered indispensable by his chairman is in the habit of anticipating everything that needs doing around the course and if at all possible never allows the chairman to be bothered except for an occasional tour of inspection. A capable, careful, experienced greenkeeper knows what is bought for the course, how much fertilizer, how much brown-patch medicine, how much this, how much that. He is well grounded in the habit of thinking in quantities but unfortunately in many. many cases the greenkeeper never thinks in terms of what these quantities course

nance supplies cost. In other words he does not have the attitude of a bookkeeper with respect to the business of greenkeeping. In fact you would almost have to threaten to emasculate some members of the profession before you could make them sit down and figure with pencil and paper.

### Have to Figure

"This reluctance of some greenkeepers to take on the bookkeeping and estimating end of the course-maintenance," continued this wise bird as he gulped down a half a tumbler of needled-ginger ale, "is costing some of my brethren dearly and I speak advisedly when I make this state-In the first place if the greenkeeper doesn't do the paper end of the racket the chairman must and that gives the gentleman an annual pain in the neck. Secondly, and much more to the point, no chairman ever entirely respects a greenkeeper who will not or cannot put facts and costs down on paper. That greenkeeper may be the best grass grower in seven states, he may be such a wonderful manager of labor that all other greenkeepers pale into insignificance in this respect, he may know machinery, water systems, soils, bugs, diseases, golf course diplomacy in all its ramifications, etc., etc., until hell won't have it but unless he can handle the white collar end of his job he will ever be just one and one-half grades above the common laborer in the scale of social gradations firmly fixed in the cast-iron mental attitude of the average chairman. Why? Because the average chairman is a white collar man and has all the mental inhibitions, prejudices and ingrained attitudes of his class, most of which he acquired at his mother's knee and will never lose.

"Juggling figures and estimating costs is second nature to the average chairman, just as easy as swabbing down gin and orange juice. He simply refuses to understand why anyone with ordinary intelligence and education should be afraid or incapable of handling figures; consequently when he sees that his greenkeeper will not or cannot handle this sort of work, right then and there he refuses to consider or deal with that greenkeeper as a business From that time on that greenkeeper is just a high class foreman as far as the chairman is concerned, and he draws a foreman's wages and the few prerogatives of that class.

"Of course I know that such a greenkeeper will immediately begin to howl about the difficulty of figuring ahead, that he can't tell what sort of a season we are going to have next year and that if he figures too low the club will take it out of his hide, etc., but that's a lot of baloney. If the chairman does the figuring isn't he up against the same set of difficulties and doesn't he put on a poker face and go through with it?

### Looking Ahead on Expenses.

"As far as figuring ahead is concerned it is enough to say that the job isn't as awful as it is painted. Any greenkeeper knows how many men he needs to properly run the course. Figuring the cost of this labor is simply a case of doing some simple or garden variety of arith-He knows how much manure, fertilizer, mercury preparations, etc. are needed for the greens. He should know the condition of all machinery around the dump and can find out what needed overhauling will cost. In the last analysis, any greenkeeper knows what is being bought for the course. He can easily find out what it costs, and get it all down on paper. You've got to go over the entire layout systematically, itemize every single

item of supplies and equipment and get it down in black and white. The job is 10% brains and 90% work.

"After you have figured up all labor, supplies and equipment costs add 20% as a protection from the cold north winds and compare your total figure with what it cost to run the course the year previously. You'll probably be a little high but don't get scared and pare it down to last year's level. It's always safe to ask for more than you expect to get in this vale of tears. Furthermore if you get what you ask for (which never happens) and you spend less than you get, you will earn a hell of a fine reputation for being economical. If they cut your estimate to the bone and you run out of jack on the 20th of September let the chairman do the explaining. That's his job. It's the greenkeeper's job to give him the figures with which to do the explaining; in other words being a business man is an important part of a greenkeeper's job, and a part that is all too often sadly neglected."

At this point the supply of ginger ale ran out and my friend was called away to examine the sixteenth green so I ambled on toward home. I have an idea the old boy knows what he is talking about. At any rate he has a fine soil shed and draws down \$416.66 on the first of each and every month for playing the game as he plays it. In the words of the poet—nothing succeeds like success.

### New England Managers Guests at Rhode Island Meeting

O N OCTOBER 6th, the New England Club Managers Association, had a meeting and get-to-gether at the Providence Biltmore, Providence, R. I., and atter renewing acquaintances, motored to the Rhode Island Country club where Manager Herioux had prepared a buffet lunch

Golfers among the managers stayed at the club and played 18 holes, while managers who take their exercise less seriously went to the Squantum club and from there went on a boat trip down Narragansett Bay. From all indications they had a good time.

At 5 o'clock all met at the Squantum club in East Providence and shop talk was in order for an hour; and then at 6:30 a famous Squantum clam-bake was served to the 53 members and guests at one large oval table.

The club managers were honored with the presence of several house-chairmen.