Three Cheers!!

Here's a gang mower unit with frame and wheels of UNBREAKABLE MALLEABLE IRON!

If you don’t see anything else at the Greenkeepers’ Convention in Columbus, you’ll get your money’s worth just looking at the 1931 model of the PENNSYLVANIA “New” Fairway Mower (Quint or Trio). That is, looking and pinching yourself to make sure that you actually see before you gang mower units with complete frames of MALLEABLE IRON, including the wheels!

What a relief! No more broken wheels, side plates, lower knife bars, roller brackets or shields. Here, for the first time, you have a large mower unit that’s built to automotive standards, with high tensile strength malleable iron in every part that needs it.

The 1931 “New” Fairway has several other new features—but what’s the use of telling you all about them here? See you February 3 to 6!

Pennsylvania Lawn Mower Works
1628 North 23rd Street, Philadelphia, Pa.
Why an Engineer?

The advantages of the engineering method in the procurement of suitable plant construction at minimum cost are:

1. By perfection and simplification of design, the construction is reduced to a minimum, both in quantity and in sizes.

2. By a knowledge of costs and prices bid on similar work at widely separated places, the engineer determines the range of the low bid market; thus insuring that construction be purchased at minimum cost.

3. Through his wide acquaintance and contacts with bidders who have found themselves close figures, or in need of work, he brings competing bidders whose bids insure the lowest possible cost.

4. The engineer simplifies the task of figuring for the Contractor, "sets up" the project so that the Contractor can estimate the work at its true value, and, when necessary, "sells" the work to the Contractor.

5. By his knowledge of possible alternate materials and alternate construction, the engineer is able to induce competition between materials and methods of construction, so that the Owner is able to consider each method and material, at its lowest competitive cost, select the construction most favorable to him and secure the direct benefit of lower material prices than he can secure for himself.

6. The engineer often reduces the total cost of construction by specifying certain parts of the work to be done by the Owner's Groundkeeper, work which can be done by Owner to greater advantage than Contractor.

7. From the standpoint of cost, the engineering method secures equivalent construction at lower cost than any other method can secure, usually at a saving over other methods more than sufficient to pay all of the engineering fees.

WENDELL P. MILLER and ASSOCIATES
105 W. Monroe St. 85 E. Gay St. J. Alberdi 699, Olivos F. C. C. A.
Chicago Columbus Buenos Aires
CONSULTING ENGINEERS
Soil Technologists

Eastern Engineering Representatives for Buckner California Irrigation Systems

The advertisers pay for your GOLFDOM: deal with them.
The drouth of last summer and fall was far-reaching in its effect upon grass seed. Crops were short and prices on the varieties harvested in this country above normal.

This fact, in itself, furnishes sufficient reason for early buying. But another factor is entitled to even more consideration. Short crops invariably lead to the promiscuous offering of inferior seed either from the new or old crops, usually the latter.

We have in mind particularly Kentucky Blue Grass. Much seed that is being offered now is low in germination. Some of it is three-year-old seed. For such seed even a very low price will not compensate. After all, it is turf one expects from seed.

Regardless of where you purchase seed, early buying and exceedingly careful buying will be advantageous. May we quote you on Scott's Seed?

Golf Course Seeds
O. M. Scott & Sons Co.
Marysville, Ohio
“THE SQUARE-TURN FEATURE of the McCormick-Deering FAIRWAY makes it far superior to any other type of tractor for golf course work.” This is the opinion of Mr. George Rudelius, greenskeeper of the Edgebrook Golf Course, Rockford, Ill., who has had nine years’ experience with other types of tractors.

The FAIRWAY operates a five-gang mower on the fairways, and the special built-in 7-foot power mower on the rough. The ability of the latter to cut close to trees and shrubs appeals strongly to Mr. Rudelius. He also refers to the gratifyingly low fuel and oil consumption of the FAIRWAY.

The Edgebrook Course is operated by Edgebrook Subdivision. The FAIRWAY has many jobs around the development. It operates a saw; moves dirt and stones; plows, disks, and drags three acres of gardens; and it will handle a snow plow this winter.

Ask for information about the McCormick-Deering FAIRWAY at the nearest of 115 Company-owned branches and 42 distributors in the United States and Canada. Write us for catalog.

INTERNATIONAL HARVESTER COMPANY

The Golf Tractor

McCORMICK-DEERING FAIRWAY

Tell us any idea for making GOLFDOM advertising more helpful.
PLAN now
for the SPRING
APPLICATION

BUDGETS
are now in the making
and greens-chairmen and
greenkeepers are urging increases in the
amounts set up for repairs and maintenance
of their golf courses, which with few excep-
tions were hard hit by last summer's heat and
continued dry weather.

MORE FEED is a growing practice
and Less Seed among progressive
greenkeepers and
the trend is away
from the use of nitrogen carriers alone and to-
ward the use of complete fertilizers applied as
early in the Spring as possible to produce a
vigorous growth of grass which stands up better
over the summer months.

Apply NACO for
Best Results
...longlasting and economical... takes less
per green, less per acre of fairway. NACO
produces a disease-resisting growth of turf
and a velvety, wear-resisting stand of grass.

NACO contains no weed or other seeds,
but it is not sterile. The millions of bene-
ficial bacteria that it adds to the soil break
down the plant food compound into those
forms which can be taken up by the
grasses as plant food.

NITRATE AGENCIES COMPANY
104 PEARL STREET - NEW YORK CITY
Purer than 99%

U. S. Government Standards of Testing

Triple A Bent

South German Bent

Cocoos Creeping Bent
The true strain as selected for us by Dr. Lyman Carrier.

Triple A Bent
The best form of Agrostis capillaris.

Colonial Bent

Rhode Island Bent

Fancy Red Top

Chewing's N. Z. Fescue
(N. Z. Gov. Test)

In offering above "Grass Seeds of Known Quality" with a purity of 99% or over, we present an opportunity of securing seeds of exceptional purity—and at lower prices, when comparing pure live seed content with that of commercial or standard grades.

We also offer Kentucky Blue Grass with a purity of over 97% and true South German Bent with a purity of over 90%.

In addition to purity, we give special care to the elimination of weed seeds, and as all grass seeds are carried on hand in our own warehouses they are under our complete control.

Write for our prices on your requirements of grass seeds, also equipment and sundry supplies.

Stumpff & Walter Co
Specialists in Golf Grass Seeds and Equipment

30-32 Barclay Street New York City

The advertisers pay for your GOLFDOM; deal with them.
Nearly 2000
Golf Clubs Praise the
STAUDE Golf Course TRACTOR

Their Letters Prove Its Efficiency

Letters in our files furnish abundant proof of the power—speed—endurance—economy—of the Staude, the world's lowest priced general utility golf course tractor.

It is sold on a money-back guarantee. You must be satisfied!

See our exhibit at National Greenkeepers' Golf Show, Columbus, Ohio, Feb. 3-6

Write for free catalog.

E. G. STAUDE MAK-A-TRACTOR CO.
2696 University Ave., St. Paul, Minn.

The
Improved
SIX
BALL
CLEANER

• One to Six Balls at a Time.
• Ejects Balls When Cleaned.
• No Gears or Springs.
• Avoids Delay on the Tees.
• Requires Very Little Care.
• Built for Long Service.

Price Discount on Quantities

THE W. G. MFG. & SALES CO.
33 N. High St. Columbus, Ohio

Or at Your Dealer.
To remind you that KOPPERS Sulphate of Ammonia is used by the most prominent greenkeepers, because of its Superfine, extra-dry, non-lumping qualities... and that it will save time, labor and money for you, too... a series of Cy Hungerford cartoons, featuring turf experts you know, will be mailed to you from time to time. If you did not get the first one, your request on a postcard will add your name to our list... without obligation, of course!

Koppers Sulphate of Ammonia Is Distributed by:

- Cadwell and Jones, Hartford, Conn.
- Rogers and Hubbard, Portland, Connecticut.
- Wheeler and Company, Bridgeport, Conn.
- Hal Billig, Chicago.
- J. Oliver Johnson, Inc., Chicago.
- Vaughan Seed Company, Chicago.
- Collins Seed Service Co., Boston, Mass.
- Jamaica, L. I.
- Griffith and Turner, Baltimore, Md.
- Hovey and Company, Boston, Mass.
- Perry Seed Company, Boston, Mass.
- Geo. B. Sampson, Holyoke, Mass.
- American Seed Company, Detroit.
- Ideal Power Lawn Mower Company, Lansing.
- Cornelii Seed Co., St. Louis, Mo.
- Troy File Works, Troy, N. Y.
- E. L. Winn, Inc., Elizabeth, N. J.
- Golf and Tractor Equip. Corp., Syracuse, N. Y.
- New York Toro Co., Yonkers, N. Y.
- Golf Course Supply Co., Cleveland.
- Templin, Bradley Co., Cleveland.
- Henry F. Michell, Philadelphia.
- The L. W. Scott Co., Pittsburgh.
- Woodworth Bradley, Providence, R. I.
- Guy R. Champlain, Paris, Kentucky.
- Dick Ryerson, Milwaukee.
- Indianapolis Toro Co., Indianapolis, Indiana.
- Alme Guertin, Ltd., Montreal, Quebec, Canada.
- Whitney, Golf & Co., Kansas City, Mo.
- Koppers Sulphate of Ammonia

Tell us any idea for making GOLFDOM advertising more helpful.
Economy thru Quality

FIVE years is a long life for a golf course mower. Yet a great number of Roseman Mowers have reached that age and are still going strong. The results are obvious. The Roseman Mower:

Saves the cost of one or two gangs of other mowers.
Eliminates usual repair bills.
Saves workmen's time, wasted by breakdown.
Prevents lapses in proper course maintenance.

Quality in a Roseman Mower is not only apparent in service records. It shows plainly in construction, in the metals used, precision of bearings, the tested strength of side frames.

Over and above mowing economies is the benefit to turf growth of constant light rolling of fairways, and only Roseman Mowers roll as they mow. Write for service records and prices.

Roseman Tractor Mower Co.
Evaston, Ill. New York, N. Y.

ROSEMAN HOLLOW ROLLER MOWER

Only reliable companies are allowed to advertise in GOLFDOM.
U.S.G.A. CHIEF
Suggests New Year Policy
to Club Department Heads

THE business of golf equipment, accessories and supplies has grown to be an enormous one in this country and I am satisfied it is going to continue to increase. Increased business, of course, means increased competition, and the result is going to be that the customers for this kind of merchandise get more for their money.

Many golf clubs have taken advantage of business depression in the past year to reconstruct their operations just as many businesses have done. This is the time to make ready for the prosperous days which are not far ahead, and every golf professional, greenkeeper and club manager can profit by taking a lesson from what business is doing in this regard.

1930 Golf Leaves 3-Point Legacy to 1931

CRIES of “fore” sounded even above the walls of general business during 1930. The year’s golf play at private and public courses set a new high mark. At a number of representative private clubs in metropolitan areas play was from 15% to double ahead of that of 1929. The popularity of the golf course as a dug-out in the business battle-front was further marked by the figures of business done by the leading makers of golf playing equipment.
Not many new big courses were opened in 1930 but plenty of work was in process of completion. This is part of one of the jobs that will be opened in spring, 1931, after 18 months of conditioning. It is the ninth at Beverly Shores, in the Indiana dunes bordering Lake Michigan, five miles from Michigan City. It is tagged by its architects, Macdonald and Maddox, as “a seaside course in the middle of the United States.”

Reports from the leading makers put the 1930 golf ball and club business at a new high. Golf playing equipment business for the year was more than a third of the entire volume of sporting goods business, despite the announcement of the new ball and consequent hesitancy in buying clubs for the new ball play until the new lines of the manufacturers were definitely decided upon.

Plant Investment of U. S. Golf Clubs in 1930 Reached the Total of $852,891,408

For the first time in the game’s United States history the number of steady addicts came close to the two million mark. Division of the play, according to an extensive national survey, was:

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Number of Clubs</th>
<th>Average Players</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-hole</td>
<td>1,991</td>
<td>401 players</td>
<td>798,391</td>
</tr>
<tr>
<td>9-hole</td>
<td>3,300</td>
<td>178 players</td>
<td>587,400</td>
</tr>
<tr>
<td>Public &amp; daily fee 18-hole</td>
<td>423</td>
<td>1,100 players</td>
<td>465,300</td>
</tr>
<tr>
<td>Public &amp; daily fee 9-hole</td>
<td>142</td>
<td>325 players</td>
<td>46,150</td>
</tr>
</tbody>
</table>

Total: 1,897,241

The leadership of golf as the national pastime continued to be emphasized by comparison with baseball attendance figures. Major league baseball attendance again registered around the 11 million mark, while a conservative estimate of the number of rounds of golf played on the courses in National and American league city territories was 15 million. Again the growth of women’s golf play was a feature of the year. Women accounted for 12% of the game’s 20% increase in players during the year. Rate of growth in women’s golf for the last five years points to more women than men playing the game by 1940.

New Ball Is Accepted

Speculation as to the business effect of the new larger and lighter ball died out toward the latter part of the year. During the middle of the 1930 season some golfers laid away stocks of the present ball, but course tests culminating in the Pasadena open showed that the new ball made no especial difference in the game of dub or star with the exception of providing a better brassie shot for the inexpert player.

Manufacturers of course maintenance equipment started the year at a gait which promised a volume of sales exceeding all previous figures but were stopped short by the prolonged drought that put grass growth at a standstill. Notwithstanding this development, most of the course equipment and supply people went through the season equal to, if not slightly ahead of the 1929 top figure. General business