Market Place and Buyers’ Guide—Continued

Power Mowers
Cooper Mfg. Company
Toro Mfg. Company
Jacobsen Mfg. Company
Worthington Mower Company
Roseman Tractor Mower Co.
Ideal Power Lawn Mower Co.

Power Mowers—Roller Type

Power Mowers—Wheel Type

Putting Green Mowers
Toro Mfg. Company
Pennsylvania Lawn Mower Works
Jacobsen Mfg. Company
Worthington Mower Company
Roseman Tractor Mower Co.
Cooper Mfg. Company

Power Mower Blades
The Budd Mfg. Company

Rakes
on wire mesh
Pennsylvania Lawn Mower Works

Rhode Island Bent Seed
A. N. Peckham

Rollers
Stump & Walter Company
Toro Mfg. Company
Worthington Mower Company

Rough Mowers
Toro Manufacturing Company
Pennsylvania Lawn Mower Works
Jacobsen Mfg. Company
Worthington Mower Company
Roseman Tractor Mower Co.

Seed
O. M. Scott & Sons Co.
J. Oliver Johnson, Inc.
Stump & Walter Co.
Pennsylvania Grass Supply Co.
Seaboard Seed Co.
A. N. Peckham
T. W. Wood and Sons.
Peter Henderson & Co.
Philadelphia Seed Co.
J. M. McCullough’s Sons Co.
Illinois Grass Co.
Lyman Carrier

Signs
Standard Mfg. Company

Siphons, Corrugated Iron
Armco Culvert Mfrs. Association

Sod Cutters
J. Oliver Johnson, Inc.

Sprayers
Hardie Mfg. Company

Sprinklers
L. R. Nelson Mfg. Company
Buechner Mfg. Company
Thompson Mfg. Co.
Pelican Works
Campbell Irrigation Co.

Sprinkling Carts
Read Mfg. Company
Worthington Mower Company

Stolons
O. M. Scott & Sons Co.
Hubbard Nurseries

Storm Sewers, Corrugated Iron
Armco Culvert Mfrs. Association

Street Culverts, Part Circle
Armco Culvert Mfrs. Association

Sulphate of Ammonia
Koppers Products Co.

Tee Mowers
Toro Mfg. Company
Pennsylvania Lawn Mower Works
Jacobsen Mfg. Company

Tee Stands
Ideal Power Lawn Mower Co.

Top Dressing
Hyper-Humus Company
The Ohio Humus Company
Atkins and Durbrow, Inc.

Tractors
Toro Mfg. Company
Roseman Tractor Mower Co.

Water Pipe
McWane Cast Iron Pipe Co.

Well Casings, Corrugated Iron
Armco Culvert Mfrs. Association

Worm Eradicators
Read Mfg. Company
Peter Henderson & Co.

Classified Advertisement
PRO-GREENKEEPER WITH TEN YEARS' EXPERIENCE DESIRES POSITION. INVESTIGATE—ADDRESS: J. O.—THE NATIONAL GREENKEEPER, CLEVELAND.

Cleveland Club Installs Armco Pipe

THE new course of the Country Club of Cleveland on South Woodland Road lies in some of the most beautiful country in northern Ohio. The terrain of the course is gently rolling and is crossed by numerous streams which add both to the beauty and difficulty of the course. Many of the fairways pass through groves of magnificent beach, maple and oak which make their contribution to the harmonious natural attractiveness of the course.

The course was constructed in 1928 and since then work of improving both the grounds and the buildings has gone steadily forward. This improvement will culminate in the spring with the completion of a $600,000 clubhouse. The course itself will be formally opened about July 1.

When the course was constructed in 1928, it was planned to carry the smaller streams under the fairways in tile of a capacity sufficient only to carry the ordinary dry weather flow. No attempt was made to provide ample capacity for storm water, which was left to flow over the fairways. At the time it was thought that this plan would provide an economical and adequate means of taking care of these small streams.

However, during the spring of 1929, this storm water overflowing across the fairways had worked out the turf in places and had also deposited large quantities of clay silt which would be very objectionable to the players even though the sod were uninjured.

Storms Cause Washouts

AFTER several bad washouts had thus occurred it was decided that installing pipe large enough to carry the maximum storm water flow would lead to lessened maintenance costs and better playing conditions. As a good growth of sod had been obtained on both greens and fair-
ways during the summer of 1929 it was necessary to choose a pipe which could be transported over the fairways and laid with as little damage to the grass as possible. All the commonly used types of pipe were considered with this in view.

As the work had to be done during November and December and as the roads over the course are unimproved, it would have been difficult or impossible to get the heavy rigid pipe of the required size to the site of installation. Even though the pipe could have been delivered it could not have been moved across the fairways and laid without great damage to the sod. A monolithic box would have involved the mixing and placing of sand, gravel and cement on the fairways which would again have been disastrous to the turf.

On investigation, it was found that injury to the turf could be avoided with corrugated iron pipe which weighed only one-tenth as much as rigid pipe. Also this type of pipe has characteristics—quick handling, self-aligning, frost proof—which, in addition to its durability, make for economy of installation. Hence Armco corrugated pipe was selected as the best suited for the purpose, and a careful survey of the tributary watersheds revealed that 30, 42 and 48-inch pipe were required in the various fairways through which the streams passed.

The Armco pipe was furnished in 20-foot lengths to expedite laying. Delivery was made by truck to the nearest point reached by improved roads, from where the pipe was rolled over the fairways and newly made greens to the place of installation, in some cases a distance of over 1,000 feet, without damaging the sod in the least. Three men, at the most, were needed to roll these sections.

Excavation for all the pipe installed on the golf course proper was done by hand. The pipe was lowered into the trench with rope slings, no special equipment of any kind being needed. Backfilling was done by hand and immediate steps were taken to provide an early growth of turf which will remove all traces of the former troublesome streams. In all approximately 1,000 feet of the various sizes of pipe were installed, the improvement being carried out under the supervision of Bert G. Sheldin, greenkeeper and superintendent.

Above is an unsolicited subscription order from a prominent Long Island Golf club for ALL the members of the Green committee.

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The only journal in the world on turf culture and golf course maintenance