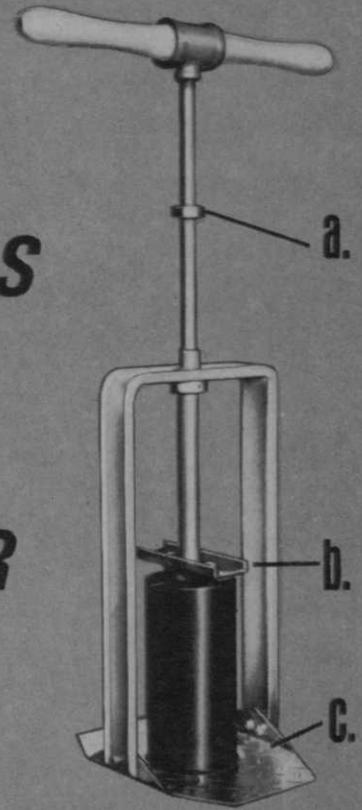


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LEWIS LINE CUP CUTTER



We can show you how you and your men can cut cups faster, straighter, in fewer lifts...using Lewis Line Cup Cutters.

Here's Why!

You stand in correct position with your weight bearing down. Result: faster turf penetration. See above.

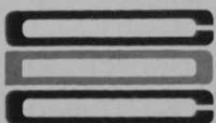
- a** Adjustable collar lets you set depth of cut, exactly . . . even after repeated sharpening.
- b** Foot ejection lets you eject plug directly into hole.
- c** Stand-on base plate holds cutter exactly 90° to turf. Can't wobble.

Prove to yourself that you can save time and effort on each of the thousands of cups you and your men cut each year. Ask your Lewis Line Dealer to demonstrate . . . then try it for yourself. Rugged long lasting Lewis Line Cup Cutters are top-quality throughout. They easily stand up to every day use. Stay Sharp! They're available with inside or outside bevels.

Call your Lewis Line Dealer . . . state your preference . . . ask for Cup Cutter demonstration; or write direct.

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CD-34



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And every one is backed by the experience and services of your local Vertagreen representative.

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For more information circle number 192 on card



Answers to turf questions

by Fred V. Grau

Of this and that

Response to the idea of a museum for antique turfgrass tools has been heart-warming. One man said, "I used to work for John Morley. We have an attic full of old tools. Where shall I send them?" Quickly I said, "Don't send anything just now! Write me a letter listing the items that you would want to donate to a national museum." If enough people send me a list of items there will be the chance to start estimating the floor space needed for display. We do not yet have a national committee or a location—only a fertile idea that seems to have appeal.

We wish publicly to congratulate the golf professionals for their master stroke in securing the services of a real pro in his own right, Joseph C. Dey, Jr. Joe stands tall wherever he goes, and wherever he goes, the game of golf flourishes. We are delighted that he has accepted a position on the Honorary Board of Directors of "The H.B. Musser Turfgrass Fellowship" about which there will be publicity in the very near future.

The thirst for information seems to be unquenchable. Records again were broken at the Penn State Conference. (My Viet Nam trip eliminated me from the National and the Virginia meetings—sorry!) Fewer letters with questions reach me these days, but I am able to

pick up excellent discussions at conferences, particularly with turfgrass students. They are fresh and eager and they want to know! Thanks to efforts by our current turfgrass leaders they are getting answers. We need more studies on the development of superior "fool-proof" grasses for turf. But this takes money. Hopefully the Musser project will speed the release of better grasses for better turf.

Q.—We have large areas of zoysia and bermudagrass on our course. Last fall we let it grow up for winter protection (and to save mowing costs). Someone suggested that we get rid of the excess grass by burning. Will that hurt the stand?

(Virginia)

A.—If burning is done while the soil still is moist and cool and while the grass still is dormant or semi-dormant, no harm will result. Actually, the grass will turn green much sooner. The black residue draws heat from the sun and allows the soil to warm more quickly. Damage might occur if the new growth is well advanced. Then it may be better to remove the dead material mechanically. Oh yes, you really should advise your fire department in case there is a regulation.

Q.—At our course we are considering the purchase of a mist blower for applying materials to our greens. What is your opinion?

Continued on page 47

NO UGLY seed heads

with



FYLKING KENTUCKY BLUEGRASS

In spring most lawn grasses sprout green and beautiful turf. Then an ugly problem arises. Seedheads begin to appear with gypsy abandon, turning the green scene into a jungle of wiry straws even sharp mowers fail to sever. This wire-like growth remains an eyesore.

You can always survey your lawns with pride if you grow 0217® Fylking Kentucky bluegrass. Fylking shoots up a spring abundance of new green leaves, never produces wiry stems and ugly seedheads. This sensation of the sod and seed industry is low-growing, always mows smooth and thrives on close cutting. Fylking produces thicker, greener turf which is more disease, weed and wear-resistant than any variety yet (proven by 10 years of international testing — rated best obtainable by turf authorities).

Turf-forming qualities make it possible to lift sod in 110 days.

You'll never have ugly seedheads if you specify 0217® Fylking Kentucky bluegrass. See your seed distributor. For information or names of authorized distributors, write Jacklin Seed Co., Dishman, Wash. 99213.

For more information circle number 131 on card

Ransomes know about hydraulic power...

Ransomes designers have used hydraulic power successfully for over twenty years.

Plan for profitable large area grass cutting with Ransomes, the people who know about hydraulic power. The Hydraulic 5/7 has a proven record of a high work output over the last two years and a great record too for rugged reliability under testing conditions.

All gang mowing operations on the 5/7 are

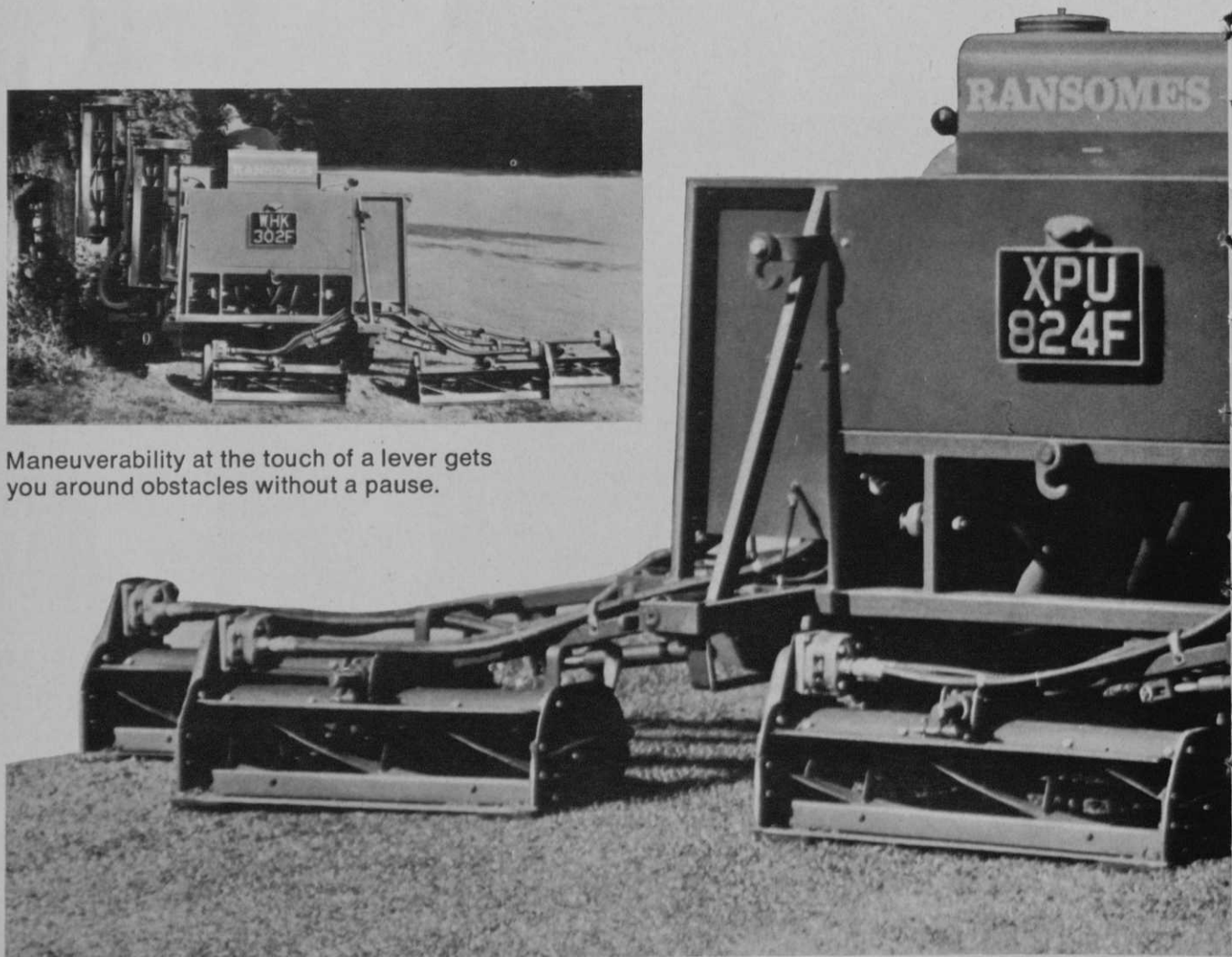
handled hydraulically, with fingertip control, from the driving seat.

The units are raised and lowered... hydraulically. Forward, neutral and reverse reel drive is provided... hydraulically. The result is a superb cut everytime, and a much easier job for the driver. We're proud of the 5/7. It's the biggest step forward in large area grass cutting for 20 years.

And there's no doubt about it.



Maneuverability at the touch of a lever gets you around obstacles without a pause.



Ransomes know about grass cutting...

The 5/7 simplifies the driver's job because:

1. Hydraulic direct transmission gives him power where he needs it most—at the cutting reels. Variable cuts per yard from 20 to 75.
2. Providing the tractor can get a grip he can go gang mowing. The 5/7 cuts in conditions that leave other gang mowers standing.
3. From a full 15-ft. cutting width the 5/7 slims down to its narrow transport width in seconds, at the touch of a lever.
4. Reverse drive clears choked reels and allows back lapping.
5. Hydraulic power allows from 1 to 7 units to be used separately or collectively.
6. Units cut in front of the tractor drive wheels before grass is flattened.

There are many other reasons why you should learn more about this unique machine. Contact one of these importers:

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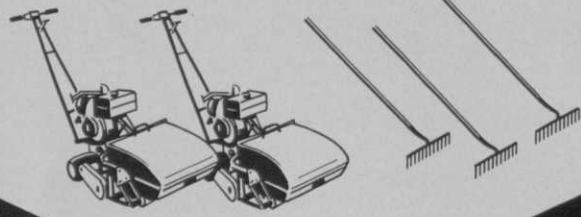
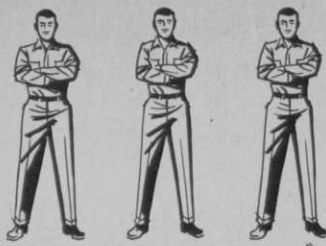


RANSOMES

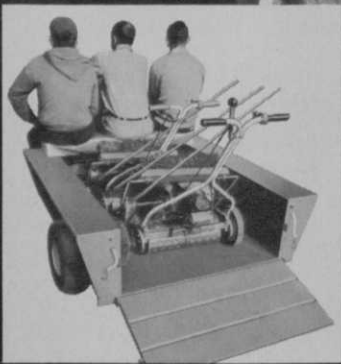
Hydraulic Power 5/7
fully hydraulic Gang Mower.

For more information circle number 194 on card





ALL THIS



Ranger-23

COSTS LESS THAN \$1000

see your equipment dealer or write to:

SMITHCO Inc.
11 WEST AVENUE, WAYNE, PA. 19087

Grau

Continued from page 43

Is there something as good or better?

(Virginia)

A.—Mist blowers do not seem to be very practical where air currents are a problem. Drift is a source of loss and a potential hazard where finely-divided droplets are concerned. Hydraulic seeders (Finn, Bowie, Reinco) appear to me to be extremely practical on the golf course. They can be used to apply fertilizers, lime, fungicides, herbicides, seed, wood cellulose fiber mulch on new plantings of seed or stolons, and even for planting grass vegetatively. Hydraulic seeders are multi-purpose. The mist blower must operate in a much narrower range.

Q.—We have heard many times that phosphorus and arsenic conflict, particularly in the control of

Poa annua. When phosphorus levels are high it seems that arsenicals work rather poorly. Conversely, arsenic becomes more effective when P levels are low. What is the explanation?

(Pennsylvania)

A.—Phosphorus and arsenic are very close together in the Periodic Table, a chart of known chemical elements. Their atomic weights are very similar and can replace each other in many chemical combinations. In the plant cell, P is essential for growth and development. *Poa annua* thrives on a high P diet. Most turfgrasses need very little P. When P is deficient and As (arsenic) is introduced, the grass plant takes in As. In the cell this heavy metal element precipitates the proteins which then cannot be translocated to the growing points. The plant yellows, becomes stunted and eventually dies if the concentration of As is high enough.



NOW Warren brings you Warren's A-20™ Bluegrass

The ideal grass for tees, approaches and collars. Takes short cut. Grows upright, gives better support to ball. Resistant to leaf spot, mildew, rust and stripe smut. Develops less thatch. Greens up earlier, stays green later.

Golf courses from coast to coast for years have planted Warren's Creeping Bent stolons for the finest greens in America. Clean, pure strain Warren's stolons provide perfect, even texture and color. Greens planted with seed do not hold their uniformity of color and texture as well as greens planted with stolons.

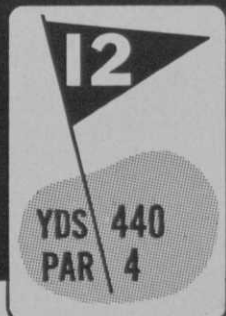
And Warren research has now made available the new grass, A-20, with the same high quality, for tees and aprons of greens. A-20 has been tested and rated by leading universities.

Write for specific information about A-20 Bluegrass and Warren's stolons.

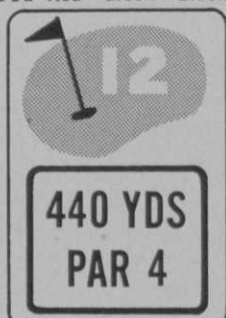


For more information circle number 232 on card

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G-91 Red • Green • Black



G-92 Green • Yellow • Black

JUST \$4.95 EACH!

Colorful Hole Numbers, attractively designed in two exciting styles. On strong 18 gauge steel, with weatherproof baked enamel finish . . . size 12" x 18". Just send us your scorecard, with correct yardage, indicate style wanted and we will custom make in just three weeks! Sturdy 5½' channel posts \$1.50 each.

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AND TEES EQUIPMENT—WRITE FOR CATALOG

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Golf resort of the future

Continued from page 22

to increase."

A predecessor and pacesetter for Boca Raton is another Arvida community, the Royal Palm Yacht & CC, begun about 10 years ago in the town of Boca Raton. This community is situated on the Intracoastal Waterway so that its luxury homes (average price—\$85,000) can face either canals or fairways.

The management expects that the occupancy pattern of Royal Palm will be duplicated at Boca Raton, West, with about half the residents retired (60 years and up), about one-quarter semi-retired (50 to 60 years) and the rest employed full-time (30 and up).

More significant as an indication of the attractiveness of Boca Raton, West to prospective buyers, is the appreciation of property at Royal Palm—some home values have increased as much as 25 per cent in the last five years.

The open space concept is indicative of the thinking and planning of the Boca Raton development. Although the entire development may ultimately contain over 4,000 apartments, they will occupy only about 32 per cent of the land, and the four golf courses within the acreage of Boca Raton, West will assure the open spaces of the development for home and condominium buyers.

The courses, which were designed by Desmond Muirhead and Gene Sarazen, will each provide three levels of play: professional, men's and ladies'. Difficulty of play at Boca Raton courses will be regulated by using many tees with unusual shapes and placements, rather than moving the tee closer to or farther away from the green. It is anticipated that this will change the challenge of the course as well as distance. For instance, on the first course the yardage is 7,065, 6,400 and 5,635 for professional, men's and ladies' play; par is 72. The tees curve in S, Y, U and H shapes to make the water hazards, traps and widths as equal as possible.

In Palm Beach, a 1,000 acre tract is being developed by United

Continued on page 82



PHOTO COURTESY SAN DIEGO C.C.—OVERSIZE TIRES (AS SHOWN) OPTIONAL.

FOR 18 OF THE BEST-DRESSED GREENS... USE THE ROYER SUPERINTENDENT SHREDDER

For a top-notch top dressing that leads to plusher greens with truer putting surfaces, you just can't beat a Royer Superintendent Soil Shredder. It efficiently makes up any top-dressing formula in a single continuous action—raw ingredients in one end, top dressing out the other—at the rate of 15 cubic yards per hour. You can prepare and store or take the mobile Superintendent right to the green. □ Equally important is the quality mix you get. Using a patented cleated-belt action the Superintendent breaks up lumps without damaging soil structure, mixes and blends thoroughly to eliminate formula stratification, cleans out oversize, and discharges a "Royerated" blend into a stockpile, truck or trailer. □ When large amounts of coarse organic matter and small stones are present in the soil, further screening may be desirable. Here's where the Royer Powerscreen is important. This fine-mesh, vibrating screen receives the discharge from the Superintendent and produces a final mix that is uniformly textured and completely trash-free . . . a top-quality mix that allows powered top-dressing spreaders to operate at their highest efficiency by minimizing downtime. And, a mix that mats in (not off) the green to eliminate trashy aprons. □ Detailed tips on operating the Superintendent and Powerscreen are contained in a booklet, "Golf Course Superintendent's Guide to the Use of Royer Equipment." Why not write for a copy.



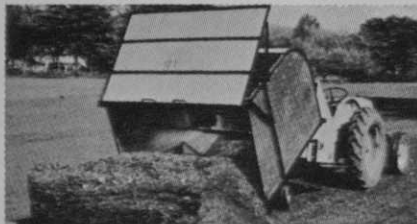
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GROUNDS MAINTENANCE and TURF EQUIPMENT

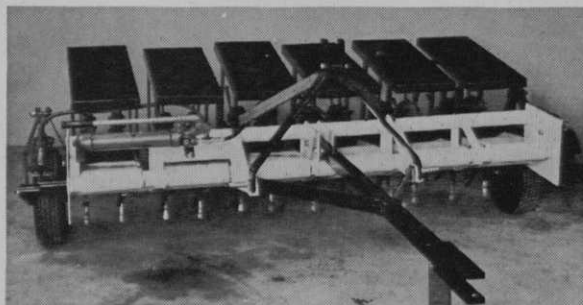
TURF SWEEPER - 720



IN DUMPED POSITION
5 CUBIC YARD HOPPER
3 POINT HITCH - 5 FOOT WIDTH

**AERATOR
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7' Swath
3-Point or
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SWEeper - 154

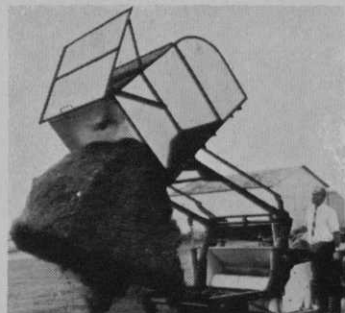


SELF PROPELLED
1 CUBIC YARD CAPACITY

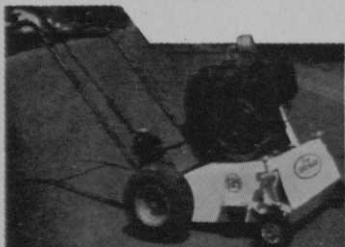
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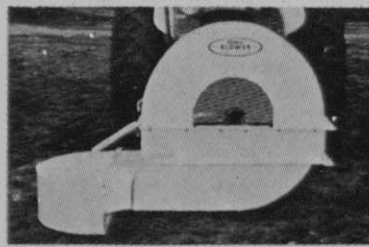
DEEP SHATTER AERIFICATION
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PTO DRIVE
7' AERATING WIDTH

BLOWER - 40



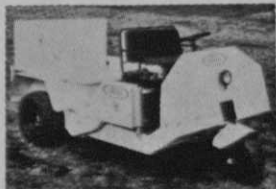
250 MPH BLAST - OPERATOR CONTROLS
BLOWER DIRECTION - 3 POINT HITCH

AERO-BLADE-548-WITH SEEDER



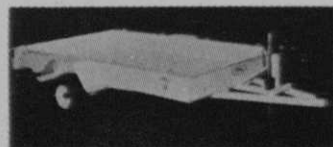
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TILL, PLANT, OR SPIKE.

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1000 LB. CAP. - 12 HP
DIFFERENTIAL - TRANSMISSION
SPEEDS: 0 TO 15 MPH

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