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The Flintkote Company, Pipe Products Group,
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For more information circle number 271 on card

How to winterize your course

by Stanley Metsker

Superintendent, Boulder CC, Boulder, Colo.

Now's the time for improvements. Ideas: build concrete drainage pans, repair machinery, paint equipment . . .

If you want to get more done to improve your golf course in the off-season, the leaves turning color is a signal to plan your winter work.

The job of gathering leaves and trimming trees can keep a crew busy in mid-fall at many courses with large trees. But newer courses, like Boulder CC, have few large trees to worry about.

Many other jobs can and should be done before the frost sets in, however. The final few weeks after the grass stops growing can be filled with useful projects squeezed out of the summer schedule. Here are a few, including approximate cost and labor (man hours) required:

Job	Hours	Cost
Repairing parking lot, roads and cart paths	112	\$ 246.40
Building fences	65	\$ 354.00
Cleaning up gardens	40	\$ 88.00
Dredging lake or stream channel	Contracted	\$3000.00
	8	\$ 72.00
Making water system changes	48	\$ 205.60
Cleaning ditches or hazard area	53	\$ 232.00
Stockpiling fertilizer	80	\$ 255.00
Building new ice rink (at Boulder)	60	\$ 132.00
Maintenance (4 weeks)	100	\$ 220.00
Making drainage pans	90	\$ 243.00

(Costs include a machinery charge and materials, except for first item.)

Last fall we built a new greenhouse. (It is used primarily to raise bedding plants for the clubhouse summer gardens.)

It took two men about a week to build, including preparation, selecting materials and cleanup. Materials cost approximately \$150, with heating cables and electric heater. The lumber was rough cut, the roof is corrugated fiberglass and the walkway is cut into the ground so there is no need for side walls, benches or expensive construction. It has a thermostatically-controlled fan to assure even temperature.

After it was completed, we took geranium cuttings, rooted them, and when spring came we had 200 beautiful geraniums to plant.

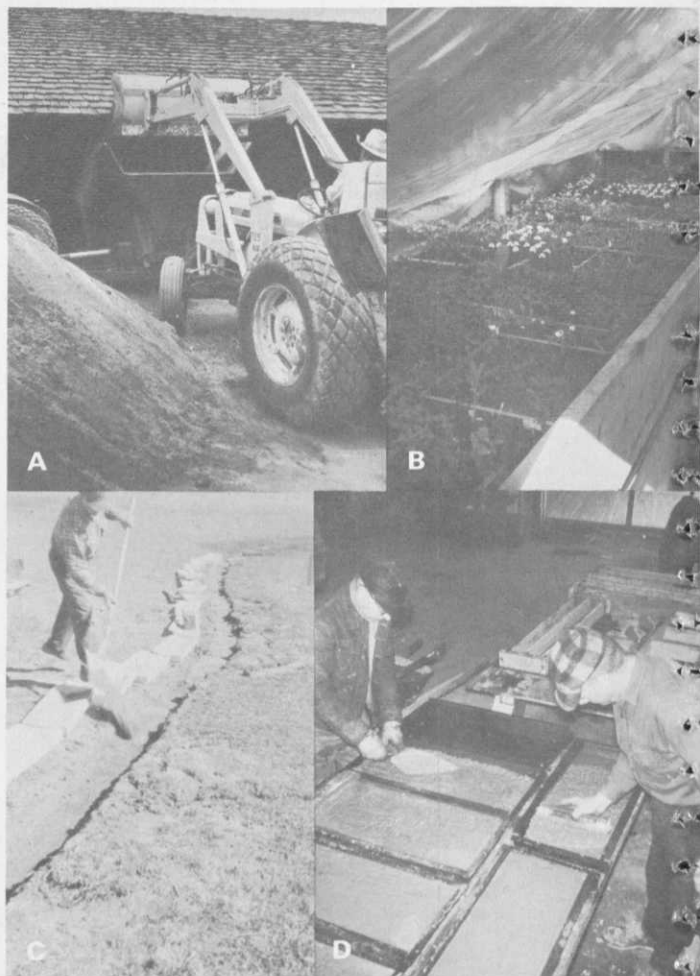
Most of the seedlings are started in February or March. Some of the easiest for us to grow have been allysum, dalia, marigold, linum and balsum (see photo). We find that petunias, begonias, coleus, and other fine seeded plants are harder to handle.

When the fall ends and snow flies, you should be

ready with inside projects for your permanent crew. Here are examples of winter jobs Boulder plans:

- Making Christmas decorations;
- Repairing machinery;
- Making concrete drainage pans;
- Painting equipment and furniture;
- Raising flowers for summer landscaping;
- Attending turf education meetings;
- Preparing next year's budget, maps and reports.

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A. Winter project illustrated here is the mixing of topdressing for next spring and fall. Soil is being loaded into spreader that blows it into storage building until it is used. B. These are the bedding plants to be used next spring. C. This shows installation of drainage pans that are being finalized in photo D. Two men can install 300 feet in one day. One man can make ten pans in 1½ to 2 hours.



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Designed and built primarily for large groundskeeping chores, the Bolens GK fills the gap between conventional tractors in the 14 to 30 hp range. Center Pivot Steering and the powerful 18 hp engine let the GK outwork many larger size tractors.

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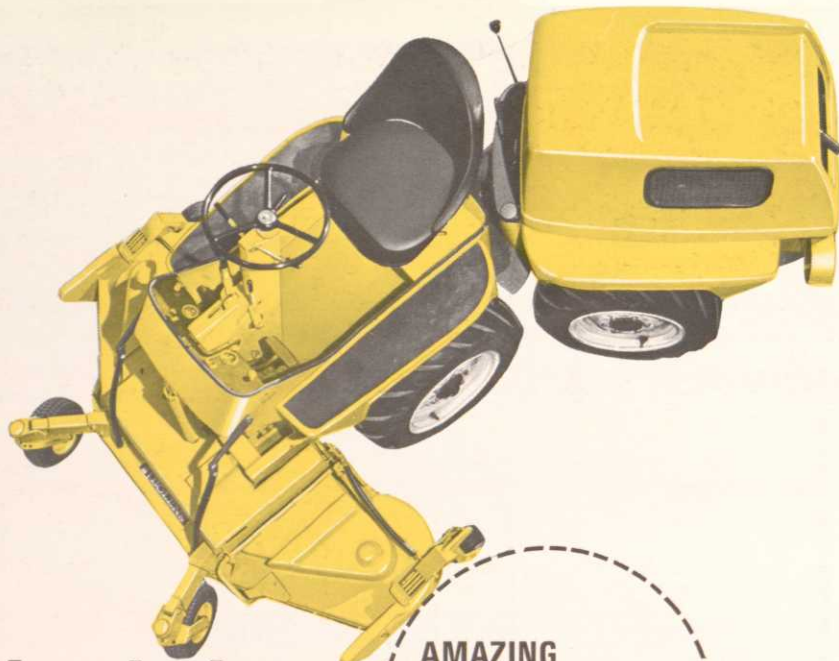


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Here's how center pivot steering works

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As the operator turns the steering wheel, the entire front and rear sections of the GK move together as a hinge, with the wheels forming an arc. Rear wheels track front wheels, exactly, so the operator working from the front module never needs to look back over his shoulder to see if he's missed something.

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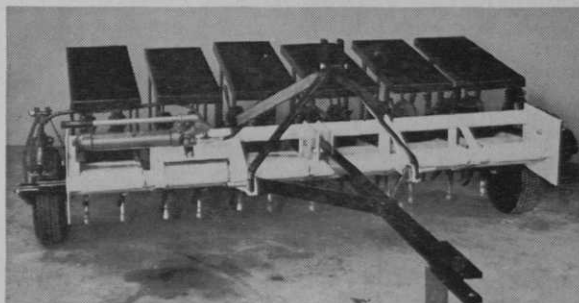


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#590

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SWEEPER - 154



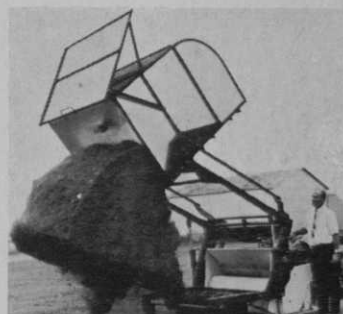
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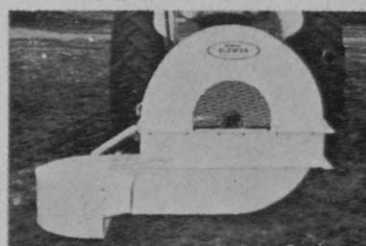
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How to winterize your course

Continued from page 72

One off-season activity of ours is tied in with our location.

The club is five miles from the city, surrounded by farms. We have taken advantage of this fact by buying, loading and hauling manure directly from farms to the golf course. This saves money. Commercial dealers charge about \$5 a cubic yard, while we get it for 50 cents. We buy about 50 yards (cost: \$25) and put it on badly-worn or still undeveloped areas. The manure retains sunlight and heat to help sparse areas green up early in the spring, and stay active later in the fall.

Christmas is one time when we go all out to please our members. Each year we trek to the nearby mountains to cut a 13-foot evergreen tree for the clubhouse lobby. We flock it, set it up, decorate it, and one year even motorized it to rotate. The whole crew pitches in to make evergreen roping, wreaths, and cutouts of Santa and reindeer. We string lights around the clubhouse, on light poles, in the parking lot and to highlight displays. It takes about 40 man-hours, to achieve routine Christmas decorations. To construct extra cutouts and displays takes another 40 or more.

There is also no end to improvements you can make with concrete during the winter season. Landscape or retainer walls with large blocks is one idea. One of the continuing projects at Boulder is making concrete drainage pans. We use a mixture of five parts sand, five parts 1/2-inch rock and one part cement. A bit of calcium chloride is used to make them harden rapidly. We have our own molds, and pour 10 a day. (See photos). The pans measure about 1 by 2 1/2 feet, with a slight furrow on top. Laid end to end, they are used to drain areas too flat for proper natural drainage, yet subject to heavy flow after rainstorms.

They are easy to install, don't plug up and work superbly. We have about 800 feet of these drainage troughs installed, about half of which were made and installed last winter.



One of last year's off-season projects at Boulder CC, was building this greenhouse. The snow fence on the roof is to shade tender plants.

Probably the most common, yet important, winter job is equipment maintenance. Not every piece of machinery has to be overhauled or painted every year. But each should be checked thoroughly. Lubrication is very important. All blades should be sharpened. When spring comes, you'll want everything in your shop ready to work.

In our area, there are periods even in mid-winter when golfers can get on the course. If it runs more than a few days, we might have to change flags and tee markers as usual. We keep three permanent cups in the greens, then rotate the flags. Watering in winter is not unusual, either. Cold, dry, exposed greens and mounds, especially, need moisture.

There is never enough time, to get everything done, even in winter. Such off-season projects take you right into the first days of spring. That's the time for planting new trees, adding sand to traps, mixing topdressing and preparing new areas for seeding.

No one but you can plan exactly what should be done this winter that will most benefit your course next season. But plan now to use your time well and get a head start on the new year. □



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The hopper has a double steel door. At the top of the hopper is a wire screen to prevent stones, etc., from being thrown out.

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Blade cutting ranges are from 2" into the ground for vertical slicing — to 3" above ground for rough mowing. All blades are "free-swinging" and rotate in reverse. This design creates air turbulence which blows leaves, thatch, clippings, etc., into the hopper.



The GROUND'S GROOMER picks up thatch, clippings and debris in a 5-foot path.



The operator easily empties the 5-cubic-yard hopper from the tractor seat.



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right down the middle. There was not a mark on the turf — you couldn't even tell where the Terra-Tires had passed. My shoe heels were actually doing more damage than the Doo-All loaded with two yards of sand.”

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Is your club half safe?

by **Herb Graffis**
Executive Editor

Here is a list of 20 common hazards to golfers and bystanders at any course. Law suits and accident claims are making clubs more aware of these dangers and of the need for safety committees

Law suits and accident insurance claims have awakened private and public golf course officials to making long over-due surveys of hazardous situations on and adjacent to courses, in clubhouses and in other buildings on the grounds.

The safety committee is the valuable new development in golf business operations. At a public or fee course, the responsibility for noting and correcting conditions risky to players, caddies and other employees and to people in areas bordering the course is great. A person with the authority to take prompt action should be there. At the private club, with its committee operations, the safety inspection and recommendations probably are most effectively handled by members of the committee. The safety program is broken down so that the clubhouse, course and grounds, golf cars, roads, pool and other facilities and personnel are thoroughly considered. Findings are put in writing and various department heads are held accountable for making the changes required for safety.

The Institute for Safer Living of the American Mutual Liability Insurance Company checked 470 courses across the nation and came up with an estimate of 18,000 disabling injuries at golf courses during 1962. Increase of courses and play and other factors including neglect of elemental safety precautions make an estimate of 28,000 disabling golf injuries in 1968 a conservative figure. (Fire insurance inspectors, employee liability insurance regulations, and in some places, Board of Health regulations for pool construction and operation, usually account for almost all the safety surveys made at a golf establishment.)

Car manufacturers say the golf car situation has a parallel in industry where, some years ago, plant accidents involved heavy costs of lives and limbs lost, time lost, workmen's compensation payments, and law suits. Then, after attention of management was accented on accident prevention and safety education, production increased and accidents

Here is a list of hazards of all sorts, both to the golfer and innocent bystander, found at courses.

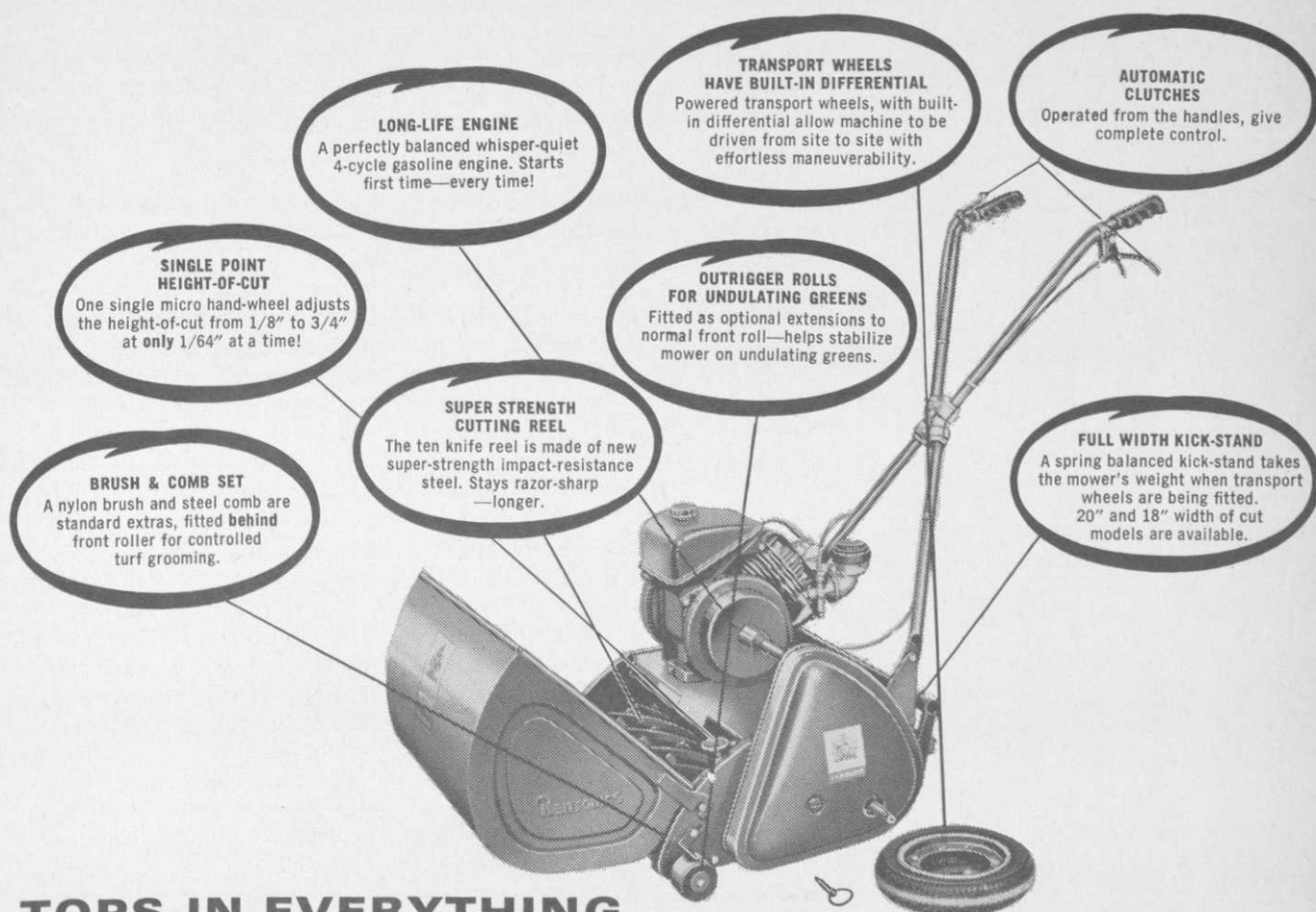
1. Club entrances onto heavily-travelled highways generally are landscaped so that drivers on the club lane or the main road are victims of blind gateway accidents. (There have been numerous fatalities near these entrances, among them that of the professional at a Michigan club.)
2. Golf balls can fly out of bounds into windshields of passing automobiles or onto lawns and through windows of homes adjacent to courses. (Whether course alterations, better fencing or landscaping could eliminate the risk is a matter for the club's safety committee to determine. And it should decide quickly because if these dangers exist only luck can keep the club officials out of court.)
3. Many of the newer golf course-residential developments haven't course design and home sites properly coordinated. Golf balls hitting children playing on the family lawn mean trouble, and a lot of it.
4. Roads on golf courses, whether for passenger cars, service trucks, maintenance equipment or golf cars, usually are after-thoughts and most of them need study and revision. (A lot has been learned about golf car traffic from the starting jam on Saturdays, Sundays and holidays at many first tees clear through to parking of the cars for service after the round. Not infrequently golf car paths from greens to the next tees are located so players delay following players, are exposed to risk or establish an area of heavy wear on the green.)
5. Golf car bridges, the paths to and from them and perilous slopes require inspection and correction. (A great deal of thinking and money has gone into making today's golf car a safe vehicle, but there hasn't been corresponding improvement made by golf club officials in car user education and super-

Continued on page 80

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Is your club half safe?

Continued from page 78

were sharply reduced. In commenting on that development an executive of one of the leading golf car manufacturing companies said:

"Industrial plants throughout the country appointed *safety committees* and *safety chairmen*. Today it is normal to have *safety directors* in large plants. "Country club directors when appointing committees should add safety committees. This innovation provides an opportunity to have more members active on committees and to remedy a serious error of omission in the club operating plan.

"Golf car manufacturers have the same problem automobile manufacturers face. They spend long hours and considerable money to develop safety devices and engineer their golf cars with safety very much in mind, but they can do very little about the car user who's driving thoughtlessly over the variegated terrain of a golf course.

"The American Golf Car Manufacturers' Association has spent many thousands of dollars on a nationwide safety program. If the safety committee chairman of a golf club or an official of a public or daily fee course in charge of a safety program will write the Association, (734 15th St., N.W., Washington, D.C., 20005) information will be provided regarding the many safety decals, posters, etc., that are available."

It might be very beneficial to a club to get a doctor, an insurance man, a lawyer, a man who travels and gets to many other courses and even a reformed drinker who has survived hazards of golf, to make surveys on safety of clubhouse and grounds. Each would see things in a light the other wouldn't. The club manager, the superintendent and the professional should then check these findings and evaluate them. Results should be discussed with appropriate people such as the life guards at the swimming pool and a county or state policeman who patrols the vicinity of the club, etc.

There's no need to detail the many perils to the pursuit of

vision and in car traffic conditions.)

6. Practice swings at the first tee where it's usually crowded is a common occurrence.

7. Awaiting golfers and caddies are often located in a place where a bad shot might fly.

8. At some places ball washers, bags and tee benches are ahead of tee markers.

9. Steps or paths are sometimes in unsafe conditions.

10. Depressions from broken drain tiles may account for injuries.

11. There will be tree limbs that may hit car passengers.

12. Trap rakes in bad condition or carelessly tossed are invitations to accidents.

13. Sprinkler head and hose outlets, hose left coiled at unexpected spots and tee benches in bad repair are other dangers.

14. Caddies relaxed and unheeding while their players are driving are hit so often that it's considered an occupational hazard. Only because of luck are the kids seldom hurt.

15. Parallel fairways with traffic in opposite directions are scenes of many accidents. Bunkering or landscaping to eliminate this danger is a job that calls for expertise.

16. Lightning presents a danger also. In the Rules of Golf book of the USGA (pages 67, 68), information on "Protection of Persons Against Lightning on Golf Courses" might serve to prevent some of the deaths on golf courses.

17. Drinking water supply on golf courses often needs attention. Again, only luck is preventing trouble.

18. The habit of some golfers dropping a cigarette on a green then placing it back in the mouth can be dangerous if the green recently has been treated with poisonous material.

19. Golf club employees sometimes are exposed to injury from chemicals used in maintenance. Machine operation on course and in the equipment building generally is so obviously hazardous that the superintendent educates and supervises his

Continued on page 105