(Continued from page 9)

considerable study. The action of frost on soils can be favourable or unfavourable depending on the soil texture, organic matter content, moisture content, the rate of freezing, frequency of thaws and depth of freezing. Buckman and Brady have indicated that the force developed by the freezing of water is an almost irresistible force equivalent to about 150 tons of pressure to the square foot. That soil moisture content, then, is important in considering frost effects on soils is easily understood.

It is generally considered that frost action is beneficial. It is believed that alternate freezing and thawing causes a granulating effect on soils and may help overcome compaction caused during the regular playing season. Baver states that freezing and thawing do not always result in improved soil conditions, however. If the soil is dry during the winter there will be little change in aggregation, and, if it is excessively wet there may actually be a dispersion of aggregated materials.

It is usually possible, and certainly desirable, to make sure that greens do not go into the winter in a dry state. It is not possible, generally, to regulate soil moisture in late winter, however, when the frost starts to leave the soil. Since thawing commences at the soil surface any excess water is trapped at the surface by frozen soils below. It is customary to have periods in late winter or early spring when the surface soil is saturated. It is during this period that traffic damage to the soil is most likely and most lasting.

Traffic on these "fluid" soils not only causes visible injury but actual puddling can occur with a subsequent loss of aeration and drainage. It is difficult to maintain adequate soil aeration and surface drainage under heavy play on golf greens when play is confined to the growing season. When traffic is permitted on soils that are waterlogged as a result of frost action, all benefits of a good greens management programme may be overcome rapidly. Certainly the benefits occurring

as a result of alternate freezing and thawing will be lost.

Winter play on golf greens is most likely to cause injury in late autumn or early winter and again in early spring. The injury caused by this play is primarily mechanical—bruising resulting from play on frosted turf when the grass is not completely dormant, or attrition, actual wearing out of the grass at a time that it cannot be renewed. A second type of injury is to the soil. This is most serious during the time the soil is thawing and shortly thereafter.

There are several ways to lessen damage from winter play. The most obvious is to provide small temporary "greens" near the regular green for winter play. Since the surface of a green seldom provides a good putting surface under frozen conditions and golfers are generally more interested in exercise than in score at this season, the temporary "greens" are generally acceptable. Some superintendents provide extra large cups in the winter "greens" to help compensate for poor winter putting conditions.

Another method used to reduce injury in late autumn is to water the greens lightly in the mornings to remove the frost from the grass before permitting play. Many courses close for play on the days the superintendent feels the injury potential is high.

It is well to keep the membership informed of the damage potential from winter play. If winter play is regular, an additional budget item should be requested as some repair work will be necessary with the arrival of spring.

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Reprinted with acknowledgments to the "Golf Course Reporter."

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News



from the Sections

Greetings



From the President

Best wishes to the members of the B.G.G.A. in 1968. I hope this will be a happy and successful year for you all.

CARL BRETHERTON.



From the Chairman

I should like to send best wishes for a Happy Christmas to all members of the B.G.G.A. and their families, and a Happy and Healthy New Year to them all.

C. A. MOORE.



From the Hon. Secretary

To every member of the Association I would like to extend my very best wishes for a Happy Christmas and a Bright and Prosperous New Year.

C. H. DIX.

SOUTHERN

Chairman: J. K. GLASS (Thorpe Hall) F. W. Ford

Hon Secretary:
68 Salcombe Gardens
Mill Hill, N.W.7

November Lecture

BEFORE INTRODUCING THE LECTURER to an excellent gathering of over 50 members, our chairman, Jock Glass, asked every one to stand in silence in memory of Bob Cox. He went on to apologise for the absence of our president, Mr Jack Wallis-Arthur, who had been unable to attend owing to severe foot trouble. We sincerely hope that it will be better in time for our next meeting, Mr President!

Mr Shepherd talked very interestingly about aerating and mowing machines, mole drainage equipment, etc., and put his vast experience of these subjects at our disposal afterwards in question time. After our chairman had thanked Mr Shepherd and Mr Wyatt for coming along, Mr Shepherd invited all members to a drink at the bar.

Eight-a-side Match

Southern Section versus Southern Secretary match at Royal Mid-Surrey Golf Club was a clear-cut victory for the greenkeepers.

Morning foursomes $2\frac{1}{2}$ - $1\frac{1}{2}$; afternoon singles 5-3.

New Members

We welcome to the section the following new members: R. C. Falle, A. E. Watson, A. W. Clements, E. Ives, G. E. Westcott, S. D. Ashworth, A. A. Juniper, B. S. Bastone, P. R. Green. Welcome to J. J. Dearlove from the Sheffield section who is now at Wildernesse, Seven Oaks.

January Lecture

The next lecture will be at 6.30 on Wednesday, 10th January 1968, at the Stirling Castle, London Wall, Moorgate, and we will be given a talk by Mr R. H. Crisp, of Atcos of Reigate. This will be our first visit from Atcos and I understand it will be a very enjoyable evening.

NORTH-EAST

J. SIMPSON (Ponteland G.C.) By D. Earsman
Arcot Hall Cottage
Dudley
Newcastle on Tyne 3

In Memoriam

IT IS WITH DEEP REGRET THAT I have to inform members of the death of our vice-chairman, R. H. Nicholson, for many years head greenkeeper at Hartlepool Golf Club, who died suddenly on Thursday,

19th October. We will miss him very much as he was always a man we could look to for help and advice.

There is no doubt that greenkeeping has suffered by his passing; and we shall certainly miss him at our future meetings as he was always a regular attender.

I would like to take this opportunity of offering on behalf of the members of the North-East Section their deepest sympathy to Mrs Nicholson in her great loss.

Greetings

On behalf of the North-East Section may I take this opportunity to wish all members of the association, and the many golf clubs and firms who so kindly support us throughout the year, a Happy Christmas and a Happy and Prosperous New Year.

New Member

We welcome to the section Mr W Pender, of Stewart's, seedsmen, Edinburgh, who has been elected vice-president.

MIDLAND

Chairman: G. HART (Gay Hill)

By R. Goodwin Hon. Secretary: Birmingham Road 167 Lichfield, Staffs.

Greetings

ON BEHALF OF THE MIDLAND Section may I extend to our president, Mr Bretherton, to all members of the association and our many friends in the trade, our best wishes for a very Happy Christmas and a Prosperous New Year.

Subscriptions

A few members have not yet paid their annual subscriptions. Mr Cashmore, our treasurer, would be pleased to hear from these members, to enable him to bring his books up to date.

New Member

We welcome to the section the following new member: Andrew Jamieson, who has moved from Scotland to the Leamington County Golf Club.

EAST MIDLAND

Chairman: J. BURNHAM

By S. Fretter Hon. Secretary: 20 Woodcote Road eicester. LE3 2WD Leicester.

Season's Greetings

I WOULD LIKE TO TAKE THIS opportunity of wishing all the members of this section a Happy Christmas and a Prosperous New Year.

Subscriptions

Would members who have not yet paid their subscriptions do so as soon as possible as they are now overdue.

NORTHERN

Chairman: D. ROBERTS (West Bowling G.C.) Hon. Secretary: 8 Goit Stock Terr., Harden, Bingley, Yorks.

Autumn Tournament

THE ANNUAL AUTUMN TOURNA-MENT was played over the course of the Alwoodley Golf Club on Thursday, 26th October (by kind permission of the Club Committee). Thirty-four members took part. Unfortunately, a gale force wind and a heavy rain shower made conditions very unpleasant and good scores hard to come by.

Results

Scratch Prize—K. Driver (Serby Park), 82. 1st Division—1st, S. Smith (Alwoodley), 80; 2nd, E. Paley (Whitefield), 83; 3rd, A. Money, 86. 2nd Division—Ist, C. Ramsden (Cleckheaton), 78; 2nd, D. Ward (Scarcroft), 79; 3rd, W. Wilkinson (Shipley), 79. Veteran's Prize—D. Scole (Scarborough North Cliff), 84. Vice-Presidents—A. Brophy (Sandmoor), 83; 2nd, T. Toulson (Gott's Park), 88.

Following tea the prizes were presented by the captain of Alwoodley Golf Club. A vote of thanks was proposed by our president, Mr W. Mountain, seconded by the chairman, Mr D. Roberts. Our thanks are due to all members of the club staff for helping to make it an enjoyable outing. personal thanks to Mr T. Hullah for taking over the clerical duties in my absence. Finally, thanks to local golf clubs who so kindly contributed to our Prize Fund.

Benevolent Fund

At a short ceremony in the clubhouse of the Horsforth Golf Club on Saturday, 23rd September, our president, Mr W. Mountain, was handed the sum of £20 as a donation to our Benevolent Fund. This was the result of the efforts of Mr Ron Hartley, steward of the club and also a section vicepresident, who with the permission of the club organised a pile of pennies on the club bar counter.

New Members

We welcome to the section as a new member Mr J. Taylor, 46 Windsor Avenue, Skipton (Skipton Golf Club). Also Mr D.

J. Blackburn, formerly of the Southern Section, whose new address is "Lanscott", Willoughby Road, South Rauceby, nr. Sleaford, Lincs.

Seasonal Greetings

As this will be the last issue of the Journal before the festive season I would like to take this opportunity of wishing all members of the association a Happy Christmas and a Prosperous New Year.



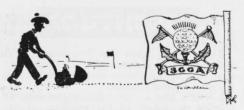
Chairman: M. Geddes (Royal Porthcawl) By S. A. Tucker H/Sec. and Treasurer: 36 Clase Road, Morriston Swansea, Glam.

Christmas Greetings

ON BEHALF OF THE MEMBERS OF the Welsh Section I send to our president, vice-president, our secretary, and all officers of the B.G.G.A., also the members of all the sections, wishes for a very Happy Christmas and a Prosperous New Year. Every Success and Good Luck in 1968.

MISCELLANEOUS

PROFESSIONALS AND GREENKEEPERS having stocks of used golf balls contact Sparkbrook Golf Ball Co., 295 Highgate Road, Stoney Lane, Birmingham, with a view to filling export orders.



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General Secretary:
R. B. MOFFATT
Cathkin Braes Golf Club, Rutherglen

EAST SECTION

Spring Outing 1968

THIS OUTING WILL BE HELD OVER the Royal Musselburgh Golf Club on Thursday, 25th April 1968, by kind permission of the captain and his committee.

More details will be given nearer the time stated.

Christmas and New Year Wishes

The chairman of our section, Mr W. Paton, and the committee hope for a very Merry Christmas and a Happy Healthy New Year for all members and our trade friends.

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THE SEASON'S GREETINGS AND BEST WISHES FOR 1968

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Sutton Coldfield

NORTH WEST SECTION NOTES

Annual Trip

THE ANNUAL TRIP THIS YEAR WAS to Slazengers at Horbury. Seventeen members went and a very warm welcome was extended to us by Miss Pritchard, the personnel officer, on behalf of the directors and management. After making a tour of the works employed in the leather work of golf equipment — bags, gloves — we were entertained to a very nice lunch, after which we made a further tour of the works to see the making of cricket bats, tennis racquets, etc. I would like to say, on behalf of the members who took part, to the directors, the management and all the workers of International Sports Co., thank you most sincerely for a very enjoyable day.

Lectures

The last talk was given to us by Mr Hewitt of Atco's Longton Service Branch, and took the form of an instructional talk on machinery and then of a quiz, the questions asked being on matters appertaining to our work and general knowledge. Mr Hewitt, on behalf of Atco's, presented the prizes to the winners. We should like to thank Mr Hewitt for an enjoyable evening and the light refreshment provided. The next lecture will be on 9th January and will be given by Mr Wyatt, of Messrs H. Pattison & Co. The venue will be the Garrick Hotel, Fountain Street, Manchester.

Congratulations

On behalf of the members of the section I should like to extend our heartiest congratulations to Mr L. Haken, of Sale Golf Club, who has now reached his eightieth birthday and somewhat reluctantly has decided to retire and call it a day as far as active green-keeping goes, but I am sure he will be only too willing to help with his very, very valuable advice. Congratulations, Len, and many happy days to come.

EVERY GOOD WISH FOR CHRISTMAS AND A HAPPY NEW YEAR from R. C. CRAIG AND COMPANY Hammersmith, W.6

BRITISH OVERHEAD IRRIGATION LTD. The "Pop-Up" People wish you ALL THE BEST FOR CHRISTMAS

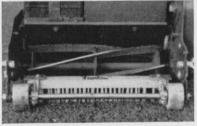
AND THE NEW YEAR
Upper Halliford Sheppert

Shepperton, Middx.

Season's Greetings

On behalf of the members I would like once again to wish the editor, the honorary secretary, the president and all members of the B.G.G.A. a very Happy Christmas and all the very best for the New Year.





STEWART'S FINALAWN BRUSHES FROM 47/6

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Mrs Greenkeeper's Own Corner

with Ann Mawson

Pork is in season from September until April, but around Christmas it is most popular. The lean should be a good pink colour and fine in the grain.

Pork Pies

 $1\frac{1}{2}$ lb. of lean pork, seasoning, stock, 1 lb. of raised or hot water crust, a little beaten egg, parsley.

"Pastry" hot water crust

 $\frac{1}{2}$ lb. of flour, $\frac{1}{4}$ of a teaspoonful salt, $\frac{1}{2}$ gill of milk and water mixed, $2\frac{1}{2}$ oz. of lard.

Mix the flour and salt, heat the milk, water and fat, then add sufficient to the flour to form a stiff paste, keep warm.

Wipe the pork, then cut into small pieces, add the seasoning and 2 table-

spoonfuls of stock.

Divide the pastry into six portions, keep back one-third of each portion and stand in a warm place. Have six cups or small gallipots inverted. Mould a piece of pastry round each to about 3 in. high. By the time the sixth one is moulded the first one can be removed from the mould. Fill each case with the prepared pork. Moisten the edges, and roll out each top separately, place on the pie and trim the edges, using scissors. Continue with the others in the same way. Make a hole in the top of each pie and moisten the edge of the hole. Roll out the scraps of the pastry and cut into fancy shapes; place round the hole. Tie a band of paper round each pie (the same height as the pie). Bake for one hour, remove the paper bands and brush pies with egg. Reduce heat and cook for a further 30 minutes. Fill the pies with hot stock, garnish with parsley.

Time 1½ hours, regulo Mark 5,

electricity 380° F.

Pork, Pickled

Belly, shoulder, leg, head or feet

(1 lb.), salt, 1 oz. saltpetre, $\frac{1}{2}$ lb. of sugar, 6 pints of water, $\frac{1}{2}$ oz. of bruised black peppercorns.

Place all the ingredients in a pan, and bring to the boil. Allow to become quite cold. Sprinkle the pork with dry salt and rub the meat well. Leave in a cool place for 48 hours. Drain off the liquid, place the meat in a large pan, and cover with the cold brine; this should come to 2 in. above the pork. Place a dish on top with weights to keep the meat under the pickle. Leave from 3 to 30 days. It is usual for the belly, head and feet to be pickled in a few days, the shoulder in 14, also the leg.

Mock Goose (Pork)

1 lb. of lean pork, 2 onions, $1\frac{1}{2}$ oz. of breadcrumbs, seasoning, 1 teaspoonful of sage, 1 egg, stock, 1 tablespoonful of flour, fat for roasting, apple sauce, gravy.

Remove the rind and wipe the pork, pass it through a mincing machine.

Peel and chop the onions.

Into a hot pan add the pork and onions and stir rapidly over a brisk heat for six minutes, cool slightly. Add the breadcrumbs, seasoning and sage, add the egg and sufficient stock to bind the mixture. Turn onto a board and form into a roll; rub over with flour. Make a little dripping hot in a tin, place in the roll and cook for one hour, reducing the heat when the outside of the roll browns. Serve with apple sauce and gravy.

Regulo Mark 4, electricity 370° F. Time $1\frac{1}{4}$ hours. To serve six people.

May you all have a very Happy Christmas and every good wish for 1968.

-Until January . . .



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ENQUIRY BUREAU.—The Editor desires to point out that he will be pleased to answer enquiries from our readers, and forward to them the name and address of the manufacturer or supplier of any particular proprietary article or product used in the construction, maintenance and upkeep of a golf course. Enquiries are coming in from greenkeepers asking for such information. They may, for example, know the trade name of the article or product they wish to purchase, but may not be conversant with the name and address of the actual manufacturer or supplier. The Enquiry Bureau will gladly supply this information, and thus enable the greenkeeper to contact the manufacturer or supplier direct.

TO MANUFACTURERS.—In order that our information may be kept constantly up to date, manufacturers or suppliers are requested to forward their latest trade lists, catalogues, and any other confidential information regarding their products. By so doing the Bureau will be able to function to the mutual benefit of all concerned.

TRADE REVIEWS.—The Editor will be pleased to arrange to devote space in our editorial columns to a review of our advertisers' products, etc. Will advertisers please forward details for this purpose. review of our advertisers' products, etc.