



Flexibility of plastic pipe makes installation for watering system comparatively simple operation.

## Plastic Pipe Is Feature of Hot Springs (Ark.) Job

Between Hot Springs and Little Rock, Ark., the Belvedere casino was the scene of high rolling gambling in the old days before the federal government clamped down.

A group of citizens in Hot Springs got together and purchased the property of 618 acres. The club now has over 400 family memberships. The property consists of 21 buildings. The main clubhouse dining room can seat 400 diners and another room the same size, fully carpeted, is provided for conventions, cocktail parties, receptions, etc.

The club also has built a championship swimming pool and a championship skeet and target range, complete riding stable facilities and provision to maintain horses for members and all of the facilities of the club are open to some 400,000 visitors a year, who visit Hot Spring National Park, Arkansas.

The golf course was laid out by the veteran, H. C. Hackbarth, of Little Rock CC and is one of the only golf courses that was laid out and operated for over a year with grass greens without water lines provided to irrigate the greens. Enough rain fell to maintain growth during that period.

With a growing feeling that luck was favoring them and that the risk was too great, the club decided to install a water-

ing system. It made arrangements with D. B. Bell & Son, Inc. of Kansas City to install water and this is the first club in the middle-west area that has employed Carlon plastic pipe for water lines to tees and greens over an 18-hole course.

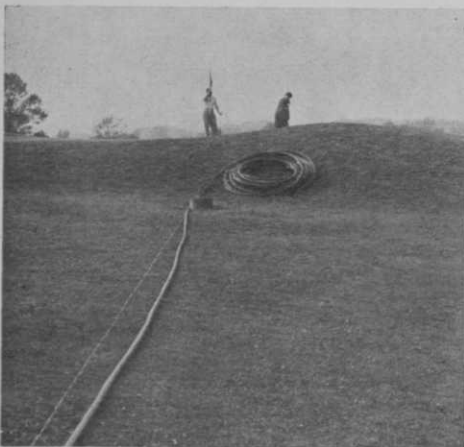
This plastic pipe lends itself to this project as Belvedere is built over rocky rough and hilly terrain, and the cost of ditching for hard pipe would be a tremendous cost for this new club composed of many members of modest income. This pipe can be laid shallow under the sod and can be maneuvered around the many trees and rock projections over the property where otherwise there would be tremendous amount of blasting and rock excavation to accommodate metallic pipe lines, resulting in a much lower cost installation than would have been possible with metal pipe.

### Pipe Installing

Turning up one furrow with a plow prepared a trench sufficiently deep to accommodate Nelson quick-coupling valves wherever required for sprinkling of greens and fairways or for making connections to drinking fountains. Long lengths of Carlon "EF" pipe were laid in the trenches and coupled by means of plastic fittings incorporating standard I.P.T. The sod was then laid back in the furrow and rolled down to permit immediate use

of the golf course. The entire installation of 10,000 ft. of piping was completed quickly by the course maintenance force working under the direction of the grounds superintendent.

Because the coefficient of expansion of the flexible pipe exceeds that of water converted to ice, precautions against frost



Degree of contraction and expansion of plastic pipe eliminates danger of frost damage or bursting from freezing.

damage or freezing were not required. Extruded from pure plastics containing no toxic ingredients, the pipe is suitable for transmitting drinking water as well as liquids for other uses. It possesses complete immunity to rot, rust and electrolytic corrosion, and is unaffected by the chemical action of corrosive waters and



Plastic fittings used as couplings help speed installation. Shallow trench in which pipe is laid is made by turning up furrow with plow. Pipe can be covered and trench filled without use of special equipment.

soils. It is extremely light in weight and can be installed easily without the use of special materials handling equipment.

The tractor is a Worthington Mighty-

Midget Model G, which is being successfully used on the job.

D. M. Bell says: "The architects will find that pressures are adequate in the standard grade EF pipe up to and including the 4 in. size as on this size pipe the burst pressure is 150 lbs. and the normal working recommendation is 90 lbs. and on the EX extra heavy wall pipe the burst pressure is 250 lbs. and the normal working pressure is 150 lbs., and on the 6 in. and the ATX heavy wall grade the burst pressure remains the same and the working pressure 150 lbs. with plenty of safety factor in the balance.

"And even if going to the EX heavier pipe or the two larger sizes required on a job, the additional cost which might be over hard pipe would be easily justified due to the extreme difference in the cost of installation, shipping costs, etc. The difference in installation costs are in favor of Carlon pipe. I will be glad when we can get even a small part of the pipe we could sell if we went out after it. It is still on an allocation basis."

Pete Fleming has the job as professional at the Belvedere club and has done a very fine job of organization with the new membership composed largely of citizens who had never belonged to a country club as none had heretofore been provided in the Hot Springs National Park area. The only course formerly provided was owned outright by the Arlington Hotel and was not of a resident country club nature.

### General Shoe Men Start Club at Nashville, Tenn.

Bluegrass Club, formed by supervisory executives of General Shoe Co., has bought two estates near Nashville, Tenn., on one of which will be an 18-hole course designed by Robert Bruce Harris. On an adjoining tract which borders Old Hickory Lake will be headquarters for fishing, boating and other aquatic sports.

Membership includes 350 General Shoe executives and the full complement of non-company members, 150. The company executives and not the company will own and operate the club. Lee Brown, pres., Bluegrass Club and asst. director of industrial relations for General Shoe said the club plan originated in the desire of the company's supervisory executives to know each other better and to have better recreation facilities.

General Shoe executives' action, following the announcement by Chick Allyn that National Cash Register is beginning a big recreation plant for employees at Dayton, O., including 27 holes of golf designed by Dick Wilson, plainly indicates how industrial golf is growing as a big area of golf development.