

LOCAL SCOUT LEADER AND SONS GET AWARD

(Continued)

The other son, Denton, has been a leader of the Flying Eagle patrol and the Beaver patrol and is now the troop scribe. He reaches eagle rank with 33 merit badges at the close of his 14th year.

Are in Camp

The majority of Scouts of this troop are now at the new Wisconsin camp, Ma-Ka-Ja-Wan, in charge of assistant scoutmaster, Lloyd Wightman.

The North Shore Area council is comprised of the communities of Wilmette, Kenilworth, Winnetka, Hubbard Woods, Glencoe, Ravinia, Highland Park, Highwood, Lake Forest, Glenview, Northbrook Deerfield, Bannockburn, Libertyville, Mundelein, and Diamond Lake. Mr. Myron C. Rybolt is the scout executive and Mr. Carl McManus is the assistant scout executive.

Picture on Cover

An interesting picture of the presentation of the awards to Mr. Smith and his two sons by Morton J. Traub, chairman of the Highland Park committee of the North Shore Area council appears on the cover page of this newspaper.

Mrs. Frances Conrad Dies Quite Suddenly Wednesday at Home

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call. There are eight grandchildren living.

Other relatives surviving are one brother, John Hemmer of Chicago, and four sisters, Mrs. Henry Neimeyer, Mrs. Theodore Juergens and Mrs. Josephine Haskell, all of Chicago, and Mrs. Schliting of Highland Park.

Mrs. Conrad was a woman of sterling character, devoted to her home and family and giving always her best thought and effort for their welfare. She was a sincere christian, kind and generous, sympathetic and charitable, good to everyone, and her friends were legion. All who knew her were impressed by her beautiful character and kindly manner, and by all her death is deeply regretted. The relatives have the sincere sympathy of the entire community at this time.

Funeral services will be held at the residence at 2:30 p. m. Friday, and 3:30 p. m. Memorial Park Cemetery chapel.

Ivanhoe Home Coming To Be Held July 18

The annual Ivanhoe home coming and picnic, the outstanding event of the year for many residents of Fremont and Libertyville townships, will be held in the Dady and Decker picnic grounds at Gages lake on Thursday, July 18, according to an announcement made by the committee in charge.

All families or individuals, who at any time have lived in the Ivanhoe school district or affiliated with the Ivanhoe church, are invited to attend the picnic.

IMPROVEMENTS AT WATERWORKS PLANT

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to be located at the south-east corner of Sunset Park.

The new filtration plant and pumping station will not only represent the last word in efficiency, but the structure has been designed to give a most pleasing architectural effect. The plant, which is being constructed at the site of the old pumping station, will occupy approximately 28,000 square feet of which about 25,000 square feet will extend above the surface of the ground. The structure is being built of reinforced concrete and brick. All the exteriors extending above the surface of the ground will be of brick, or of concrete faced with brick. The architecture of the latter has been carefully studied. The finished plant site will be landscaped and it is expected that the ensemble will be most effective.

Intake Well

Describing the new plant more in detail, the first unit in sequence of operation is an intake well, approximately forty feet deep and sixteen feet square (inside dimension). This well is divided into four compartments, two of which will receive water from the lake, while the remaining two will deliver water to the plant. The compartments are so arranged that two of them can be out of service for repairs without effecting the operation of the station.

From the intake well the lake water, or raw water, as it is called, is delivered by pumps to an aerator, which is a basin in which the water is shot into the air in a fine spray and then collected again when it falls to the floor. The purpose of this process is to freshen the water by contact with air, and it has the effect of lessening objectionable tastes and odors which result from the presence of microscopic vegetable organisms which abound in lake waters in the summer time.

Operation of Filter Plant

From the aerator the water passes to mixing basins, or chemical reaction chambers, where a very small quantity of chemical coagulant is added and thoroughly mixed with the water by means of electrically-driven paddles. The chemical coagulant, which is added in the proportion of about one teaspoonful to every one-hundred gallons of water, has the property of combining with the earth salts already present in the water and producing tiny gelatinous flakes. These flakes have the power of attracting and holding the finely divided particles of earth which are present in suspension in the water when we say it is muddy. They also attract the bacteria, which become attached to the flakes.

By the process just described, almost all of the fine particles of earth and almost all of the bacteria, which the water has brought in from the lake, have been collected and attached to the tiny gelatinous flakes produced by the coagulant. The water is next passed through settling basins, which are concrete tanks of such size that the passage through them requires approximately three hours. This means that during the passage the water is moving very slowly. This is done in order to give the tiny flakes an opportunity to settle to the bot-

tom of the tanks. At the outlet end of the tanks the water is taken out near the surface, and is very clear and very free from bacteria, as most of the sediment and bacteria have settled with the flakes to the bottom of the tanks.

Finishing Touches

The purification of the water has now been nearly completed. The finishing touch is added by the sand filters, through which the water must pass before being pumped into the mains. These filters consist of sand beds 30 inches thick, supported on beds of gravel. The water passes downward through the sand at a velocity of about three inches in minute. As it does so it leaves on the surface of the sand such particles of suspended matter as failed to settle in the settling basins. These particles build up a little "mud deck" on the surface of the sand. The thicker this deck becomes, the more perfect the filtering effect of the sand bed.

At intervals the sediment accumulated in the settling tanks, and the sediment collected on the surface of the sand beds, must be removed. The methods employed are very simple, but the limits of this article do not permit describing them.

Further Process

After the water has passed through the filters it is so nearly free from suspended matter that only the most delicate laboratory test can detect any present. The bacteria have also been reduced almost to the vanishing point. As a factor of safety, however, a small amount of chlorine gas is added to the finished water, to make doubly certain that no objectionable bacteria reach the mains.

From the filters the water flows into the filtered water reservoir under the plant. This is a huge covered tank, built of concrete in the shape of a room. In size it is approximately 100 feet long by 95 feet wide and 20 feet deep. It holds 1,250,000 gallons.

New 16-Inch Main

From the filtered water reservoir the clear water pumps pump the filtered and sterilized water into the mains. It will reach the distribution system through the three existing trunk lines and through the new 16-inch main which is being built as a

part of this improvement. The new main will extend from the plant through Egandale road to Vine avenue, and west on Vine to Midlothian; thence south on Midlothian to Sunset Park, in the south-east corner of which the new elevated storage tank is located. From the new tank the main will extend to the corner of Green Bay road and Central avenue and tie into the existing water mains at that point.

Engineers in Charge

The present waterworks improvement was designed by Pearse, Greeley & Hansen, hydraulic and sanitary engineers, of Chicago. The construction work which is being done by contract, is under their supervision. They are represented in Highland Park by Mr. George B. Prindle, as resident engineer, and Mr. S. M. Clarke, as assistant.

Hints To Motorists

Now that you are driving to the beaches again, remember, if you get stuck in the sand, you can often pull out by deflating your rear tires. But pump them up again to the right pressure as soon as you are on the road.

If, when running in high, the gear-shift lever is too close or otherwise in your way, you can have a mechanic bend it so that it will take another position.

When taking a demonstration ride in a car you are thinking about buying, test the pressure of its tires yourself. Sometimes tricky salesmen keep the tires under-inflated so the car will ride easier, and sometimes they over-inflate them so it will steer easier. What you want to know is how the car performs when the tires are right.

It's too bad the old-fashioned father who thinks that his sixteen-year-old son is the most foolish thing the world has produced, can't remember back to the days when he was sixteen himself.

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