

### GORMLEY NEWS

CORRESPONDENT: MRS. CHAS. MILSTED  
Telephone Gormley 5201

Pike's Peak Tent Meetings closed Sunday. All meetings were well attended and considerable interest was shown throughout the two weeks. Dr. M. McGuire and Rev. A. Rees were ministers in charge. The Mullen family gave messages in song.

Miss Judy Cohen, Guelph, spent a week's holiday with Mr. and Mrs. J. Wideman.

Milton Heise, Port Arthur, visited his brother and sister-in-law, Mr. and Mrs. Henry Heise, last week.

The Harvey triplets, Misses Ella Mae Hunking and Dawna Barrett, spent last week at Trail of the Pines Camp, Stayner.

Miss Ruth Hoover suffered a heart attack at her home recently.

Mrs. A. Hawkins, Miss Edith Raymer, Mrs. John Hawkins and Mrs. Ray Hawkins attended the "At Home" on Wednesday for their sister, Mrs. Jos. Koch at Markham.

Mrs. Koch has sold her nursing home which she conducted for many years. Friends presented her with a bedroom suite complete with all accessories. A princess chair for the living room, and a purse in appreciation of her service through the years was also presented.

Rev. and Mrs. M. McGuire had supper on Friday with Mr. and Mrs. Elias Elliott.

Mr. and Mrs. Clifford Heath and girls, Stratford, had dinner on Monday with Mr. and Mrs. Chas. Milsted.

Mrs. Pearl Warwick, Toronto, spent the weekend with Mr. and Mrs. Elias Elliott.

Mrs. John Bond and Mr. and Mrs. Harold Doner were guests at the wedding of their granddaughter and niece, Miss Bond, Richmond Hill, Saturday.

Friends were sorry to learn of the sudden death of Gordon Chadwick, Saturday evening.

Mr. Chadwick was the former owner of the farm now occupied by David Reed.

Mrs. S. J. Navin enjoyed a holiday with her son-in-law and daughter, Mr. and Mrs. N. Kozic and family at Wawa. She also spent several days at Port Arthur.

Mrs. Ed Kennedy, Thornhill, died suddenly last week. She was the former Rena Wilson, daughter of Mr. and Mrs. W. A. Wilson, Whitby.

Mr. Wilson was a former station agent here and the family grew up in the area.

Mr. and Mrs. W. Wilson, who observe their 60th wedding anniversary this month.

Miss Diane Smith of Skeleton Lakes, near Utterson, is holidaying with her cousin, Miss Karen MacKinnon.

Mr. and Mrs. Roy Hawkins and girls are spending a week at a cottage near Wasaga Beach.

Mr. and Mrs. Clifford Winger and Ardy, spent the weekend with relatives at Fordwich.

Mr. and Mrs. Russell Hunsperger, Carol and Paul of Philadelphia, spent 10 days with Mr. and Mrs. Alvin Farmer.

Miss Linda Empringham spent the weekend with her grandparents, Mr. and Mrs. Robt. Britnell.

Mr. and Mrs. Ralph Empringham will celebrate their 25th wedding anniversary July 28.

Mr. and Mrs. Barry MacWhirter and daughter are occupying the Bell home while Mr. and Mrs. Norman Bell are on holidays.

The Evening WMS of the United Missionary Church will hold their annual family night July 30, at 6:30 p.m., at the home of Mr. and Mrs. Melvin Baker.

The committee has decided on a pot luck supper. Each family is asked to bring enough food for their own family and then all will be put together.

Miss Ethel Byer spent the weekend with her parents, Mr. and Mrs. Levi Byer at Cliford.

Another former Gormley resident, Mrs. David Clark (the former Mrs. Bob Carlisle) died at her home in Richmond Hill Friday.

The committee has decided on a pot luck supper. Each family is asked to bring enough food for their own family and then all will be put together.

Miss Ethel Byer spent the weekend with her parents, Mr. and Mrs. Levi Byer at Cliford.

Another former Gormley resident, Mrs. David Clark (the former Mrs. Bob Carlisle) died at her home in Richmond Hill Friday.

### Drainage Cost To Be Partly Paid By Contractor

A construction company will help defray the cost of proposed new pumping facilities at Edgely Well.

MacLaughlin Construction received permission from council Monday night to purchase water in truckload lots from the well for construction purposes in the CNR classification yard.

Before the new pumping facilities can be built, the marshy area around the well must be drained, according to Councilor Ruth McConkey.

Cost of the drainage would thus be partly paid for by MacLaughlin, who will pay for the water at prevailing rates.

# Gigantic Dam Project Faced Many Obstacles During Its Construction

Last week we told you about the history of the Angus Robertson Company and the part they played in building the \$60 million Warsak Dam in West Pakistan under the Colombo Plan.

In this concluding part, we discuss briefly the equipment used and scheduling of work on the project. Due to the highly technical nature of work involved we have only summarized the highlights on this phase.

The company has been awarded the contract to build the York County Central Hospital in Richmond Hill. Completion of that project is expected the latter part of next year.

Certain requirements had to be considered when planning construction equipment. Standardization was carried out as far as practically possible. Purchases were kept within Canada, first, consistent with economy and within the Commonwealth secondly, again consistent with economy, inasmuch as Warsak was a Colombo Plan Project.

As all equipment was later to be turned over to the Pakistan Government, every effort was made to confine purchases to items that would be of best use in the future.

The great need for standardization can be readily understood. Apart from the reduction of inventory of spare parts, training of repair and maintenance crews was simplified when equipment came from a limited number of manufacturers.

The spending of Canadian Colombo Plan funds in Canada lessened the drain on the Canadian economy. Terms of the inter-governmental agreement provided that all construction equipment be turned over to the Pakistan Government on completion of the project.

Advantages of such an arrangement to Pakistan was obvious in that the equipment was already at the site and assembled, and a number of Pakistanis had been trained in its operation, maintenance, and repair.

With this in mind, every effort was made to restrict equipment to that which would be of future use on any similar project. It was not possible to avoid sending a few special items such as cableways, but in general large shovels, trucks, etc. were not chosen.

An extension of the original terms of the contract provided for the overhauling of all equipment to put it in good running order before its transfer.

From Karachi to Jamrud Fort, the railroad passes over a number of bridges and through tunnels which imposed certain limitations, but these were not sufficiently restrictive to cause much trouble.

Repair facilities established at Warsak were considerably more extensive than would be required on a similar job in Canada. Breakages were heavy,

particularly in the early stages of the work, and although a heavy inventory of repair parts was maintained, improvisation was necessary on many occasions. It was not possible to always have available the necessary parts to repair unexpected breakages, nevertheless the equipment was kept operating one way or another.

The project was rapidly divided into three main items; Tunneling through rock; earth and rock excavation; and concrete placing.

Basic planning for the first two phases called for two cubic yard shovels and 15 ton and 22 ton trucks, plus standard mine equipment for the smaller diameter tunnel.

Later study of the large quantities handled in the cofferdammed area, where operations could be carried out after unwatering and during the period of low flow, indicated the necessity of securing two, four cubic yard shovel-drag lines in addition to the smaller units.

Placement of concrete in the main dam required considerable study. Conventional methods such as the use of derricks or the construction of a temporary trestle were ruled out by the requirement of placing concrete on the high levels while the cofferdams were overtopped, and by the steep banks of the gorge.

Two 11-ton cableways were ordered to operate on a span of 1,043 feet. The sides of the gorge were trenced and track laid to cover the entire area of the dam and most of the stilling basin.

A central mixing plant, containing three, two cubic yard mixers, supplied most of the concrete required, with an auxiliary plant containing one, two cubic yard mixer for additional capacity when needed.

Four six and a half cubic yard transit mixers were used to transport concrete to the power house and other locations not covered by the cableways.

Preliminary planning called for completion of the project in 1959, which meant that the diversion tunnel, 1,700 feet long with a finished diameter of 35 feet, had to be driven and lined with concrete by September 1956 or about nine months after the preliminary set-up.

Various factors caused revision of this schedule, the chief among them being that insufficient power would be available for the heavy compressor load until midsummer 1956.

A more orderly schedule was then set up which allowed time to install proper repair facilities, organize transportation, build access roads, and establish proper relations with the local Pakistan authorities who were anxious to take as large a part in the works as possible and upon whom depended the supply of men and local materials.

Their co-operation was essential for the success of the project.

The schedule was obviously affected by the capacity of the diversion tunnel, which only permitted working in the river bed when the flow was less than 30,000 CFS for about seven months of the year.

As the Kabul River during flood period carries a great amount of silt, it was imperative that the deep excavation in the centre of the river be filled with concrete to an elevation which would avoid having to excavate large quantities a second time.

The concentration of work in the river bottom during the September to April period was therefore very heavy.

Another governing factor in the schedule was the limiting safe velocity in the diversion tunnel, as the concrete lining would have been endangered if the gap in the dam was insufficient to pass the 1959 flood without raising the water above 1,170 foot elevation.

This meant that a gap of 150 feet in the railway section and three piers had to be left incomplete until the autumn of 1959.

The remainder of the work, the power house, and penstock tunnels, and the irrigation tunnel, though of considerable magnitude, was fitted into the work in the river as required by the overall schedule.

Nearly all the temporary construction buildings had to be located two and a half miles from the site of the work. Access roads to the various working points required far-sighted planning and considerable heavy work to carry them out.

A bridge capable of carrying heavy equipment had to be built across the river immediately below the site, as the nearest crossing was three and a half miles downstream, and was only capable of carrying 70 tons.

The side of the gorge at the location of the dam on the south side was so deep that it was not feasible to maintain access to the upstream area without leaving a hole or tunnel when concreting the south end of the dam.

This tunnel was left open as long as possible before being

filled with concrete and pressure grouted, after which it was necessary to use upstream cofferdam for access until the bridge across the dam was completed.

The upstream and the downstream cofferdam each consisted of two previous fills with impervious material between them. There were four fills stretching across the river to close off the flow, which at closure created a total head of approximately six feet.

Previously, rock from power house excavation had been selected and stock-piled nearby, creating a ready reserve of rock large enough to withstand the velocity of the water.

The river at the dam site consisted of silt, sand, gravel and boulders deposited by the successive floods of the past centuries. Maximum depth encountered was 90 feet.

As soon as the area had been unwatered, the large machines went to work as draglines, and the smaller ones proceeded down to open up the cut for face shovels.

The deep excavation under some of the dam had to be done by loading into skip boxes handled by cranes at a higher level.

Power house excavation into the side of the gorge was preceded by a considerable amount of scaling by hand. The Pakistanis were good at this type of operation but it required many months of work and a debris trench was dug well above the top of the excavation to retain pieces of rock that might roll down later.

Further stabilization was necessary in the form of concrete retentment following a rock slide which took place in the first year of operation.

The highest point where excavation took place was at 1,450 feet and excavation for the floor of the draft tubes was at 1,080 feet. Again access roads were a big problem.

Blasting was used with considerable success in the early stages in order to get some of the rock from the higher levels down to where it could be handled by shovels.

Of the total amount of power house rock excavation of 523,000 cubic yards, approximately 300,000 cubic yards were handled by blasting.

There was a 42 degree inclined section near the inlet part of which was taken out from the inlet end. A pilot tunnel was then driven in the form of a raise from the bottom to meet the upper level, and successive rounds drilled and blasted from the upper level, sending the rock down to where it could be shovel loaded.

The irrigation tunnel, 17,000 feet long and excavated to an approximate diameter of 12 feet, was carried out by means of standard mining equipment.

A 24 inch gauge railroad was used and mucking was performed by overhead loaders, loading two cubic yard mine cars, hauled by battery operated locomotives.

Ventilation was achieved by four, five horsepower fans at each end, supplying air through steel pipe which started at 18 inch diameter and reduced to 15 and 3 1/2 inch diameter.

Considerable shattered rock was encountered and it was found necessary to support the arch with steel ribs for one third of the distance.

The Pakistanis were anxious to take as large a part as possible in the development and early in 1957, it was agreed that the Warsak Dam Project Organization, which was the government agency set up to take part in the project, should do the excavation of the tunnel as a subcontractor with the company assisting where necessary and carrying out general supervision.

The governing factor in the concreting schedule was the necessity of placing sufficient concrete in the dam during the low water period of 1958-59, to achieve a height which would permit concreting to continue on either side of the gap left to pass the flood of 1959.

At the same time, the floor of the stilling basin had to be completed to remove the large volume of silt which would have been deposited in any unfilled excavation.

Two identical 11-ton cableways were purchased which were used for the concrete placement.

These two units operated on the same tracks, 380 feet long, laid on benches excavated in the sides of the gorge.

Concrete was handled in compressed air operated four cubic yard bottom dump buckets, which were loaded at the main mixing plant and brought under the cableway hoods on flat cars travelling on a 36 inch gauge transfer truck, hauled by three and a half ton locomotives.

Maximum production of the main mixing plant was 49,239 cubic yards in January 1959, and the maximum placed in the dam and stilling basin using the main and auxiliary mixing plants was 67,224 cubic yards in the same month.

Maximum overall concrete placement rate was 80,172 cubic yards achieved in February 1959, the mixing plants being

supplemented by the transit mixers.

The virtual completion of the Warsak project in the spring of 1960 brought a considerable measure of satisfaction to all those participating. At the start it was not a much more than an ideal, and a number of people with a keen interest in the ideal entertained serious doubts that completion would be realized in so relatively short a time.

The organization set up by the inter-governmental agreement called for a degree of understanding and co-operation between the Pakistani and Canadian authorities, which seemed at the outset almost impossible to attain.

That it was attained in full measure reflects great credit on the people at the site who were determined that Warsak would be remembered as proof that men of goodwill can work together towards a common ideal even though they started off with little knowledge and understanding of each other.

"The Liberal" wishes to thank C. G. Kingsmill, M.P.C., director and assistant to the president of Angus Robertson Ltd., and Maurice J. Wicks, general superintendent in charge of field operations for the company, for their help in this story.

We are deeply indebted to Mr. Kingsmill for being allowed to use his engineering paper presented to the Engineering Institute of Canada at their annual meeting in 1960.

## ELGIN MILLS - JEFFERSON

Correspondent  
MABEL LOUISE ROBERTSON  
BROOKSIDE ROAD TU. 4-1396

**Holiday Notes**  
Mrs. Hans Hallgren and children Gail, Carol and Robbie are visiting with her parents, Mr. and Mrs. E. Sundquist of Kipling.

Philip and Paul Bostock of Richmond Hill were guests of David and John Robertson for a few days last week.

Mr. and Mrs. Phil Chubb are vacationing in the States this week.

Miss Florence Cook of Willowdale is visiting Mr. and Mrs. N. Thompson and son Bill.

Mr. and Mrs. H. Hofstetter of Kitchener, and daughter Susan, spent last week with her parents, Mr. and Mrs. N. Dibb.

Miss Margie Passmore enjoyed a wonderful two weeks at Camp Mi-A-Kon-Da, north of Parry Sound this month.

Mrs. Ron Rumble and baby daughter Laura-Anne spent a happy week's visit with her mother, Mrs. Giles Kerswill.

daughter of Mr. and Mrs. Meredith Ash, Gormley, was christened at St. John's Church last Sunday. Her aunt and uncle, William and Constance Ash are godparents.

Mr. and Mrs. J. C. McLeod had a wonderful trip to the West Coast, and are now staying with their son Murray, Richmond Hill, while his wife and children are in Europe.

## Crop Situation In York County Helped By Rain

The rain which fell this week in most parts of York County will bring some relief to area farmers, according to Agricultural Representative A. A. Wall of Newmarket.

According to Mr. Wall, many farmers had already been forced to start using winter feed to supplement scanty pastures.

Mr. Wall said that the effect of feed shortages and increased feed prices would not be disastrous because cattle prices are also rising.

About one-third of the wheat in the area has been cut, along with a little spring grain. Mr. Wall reports that yields are only average, but quite good considering the dry weather we have had.

### FREEZERS

15 cu.ft.	526 lbs. capacity	249.00
17 cu.ft.	600 lbs. capacity	279.00
21 cu.ft.	750 lbs. capacity	299.00

For The Best Deal In Town - See Us

PORTABLE TV RENTALS

### Richmond Hill TV & Appliances

AV 5-3756 34 Yonge St. S. TU 4-7456

## TAXES

The second instalment of the current year's taxes is due  
AUGUST 1

Pay promptly and avoid the penalty of 3% which must be added after  
AUGUST 20

R. Lynett,  
Town Clerk, Richmond Hill

### May Extend Road If Traffic Heavy

Toronto and York Roads Commission is presently engaged in a traffic survey which may determine the future of Bayview Avenue.

Purpose of the traffic count, which is taking place on Bayview, is to find out how much traffic is for Richmond Hill and how much is through traffic.

If the traffic count indicates that there is a substantial amount of through traffic, Bayview would be extended through to the Stouffville Road, according to A. J. Rettie, chief engineer of the commission.

### Council Renews Pact For Garbage Disposal

Vaughan Township has renewed its agreement with Chelero Sand and Gravel for the disposal of household garbage. The agreement would have been up for renewal August 25.

Pinewood Aggregates Ltd. and Connor Transport Ltd. had also expressed interest in entering into such an agreement.

### MOVING?

If someone you know is moving...

A friendly call by the Welcome Wagon Hostess will help them feel at home.

Join in carrying on our community's traditional spirit of hospitality. Tell Welcome Wagon the name and address of families you know who are moving.

TU. 4-2951

### WELCOME WAGON

### BUFFERIN DRIVE-IN THEATRE

THURS., FRI., SAT. JULY 26, 27, 28

THE HELLIONS  
Richard Todd

TWIST AROUND THE CLOCK  
Chubby Checker  
Cartoon

\$1.00 A CAR \$1.00  
MON., TUES., WED., EFFECTIVE MONDAY, JULY 23, 1962  
Includes all occupants

MON., TUES., WED. JULY 30, 31, AUG. 1  
PILLOW TALK  
Doris Day  
Rock Hudson

TUMBLEWEED  
Audie Murphy  
Cartoon

★ fun spot for all ★  
ON DUFFERIN STREET SOUTH OF NO. 7 HWY.

## FOR QUALITY! FOR VARIETY! FOR SAVINGS!

### FIRST

## TOWN DEPARTMENT STORE

No. 1 QUALITY NYLONS 2 prs. for 99c

### FIDELITY LONG PLAY RECORDS

REGULAR \$1.98 Our Special Price 79c

Encyclopedias - Do It Your Self Books each 50c

Oxford Pocket Dictionary each 69c

LADIES BRIEFS Small - Medium - Large 3 for 99c

LADIES WHIRLPOOL BRAS each \$1.39

Girls 2-Piece Bathing Suits To Clear \$1.29-\$1.99

Ladies HAND BAGS \$1.79 - \$1.98 - \$2.89

Mens Dress WHITE SHIRTS Special Each \$2.98

Penmans White SPORT SOCKS Pair 77c

PALMOLIVE and WOODBURY After Shave Lotion ..... 36c

SILVIKIRIN SHAMPOO - Handy Packet ..... 2 for 25c

STRIPE TOOTH PASTE - ..... 2 for 45c

PHILIPS Milk of Magnesia Tablets - Box 30 ..... 25c

PALMOLIVE Brushless Cream ..... 2 for 45c

REGINA RAZOR BLADES, Package - 10c or 10 Packages in Box for ..... 89c

## TOWN DEPARTMENT STORE

20 Yonge St. S. TU. 4-1853

RICHMOND HILL Free Parking In Rear of Store

JOE. PARISI - Proprietor

### IN A SPIN OVER MONEY?

Talk it over with a Niagara Loan Advisor. It's his job to help you! Niagara loans are made up to \$2,500 - and are usually completed in less than a day. Remember, you will always be welcome at Niagara.

NIAGARA FINANCE COMPANY LIMITED  
Largest All-Canadian Consumer Loan Company

87 Yonge St. Phone 884-4423  
Loan Manager - J. Koscher

## BUILDING MATERIALS

FOR ALL YOUR HOME IMPROVEMENT NEEDS

DO IT YOURSELF OR HAVE OUR HOME IMPROVEMENT DEPARTMENT DO IT FOR YOU

WE WILL MEASURE YOUR JOB AND SUBMIT Free Plan and Estimate

New rooms from old YOUR CHOICE - CASH OR BUDGET

PHONE 285-2267 884-1361

## SHEPPARD & GILL

### LUMBER

COMPANY LIMITED Richmond Hill

OPEN MONDAY TO THURSDAY, 8 A.M. TO 6 P.M.  
FRIDAY 9 P.M., SATURDAY 4 P.M.

71 Centre St. E.