

# Blood Donors Provide Human 'River of Life'

Miss C. D. L. Greifeneder, D.Sc., of the Georgetown hospital staff has prepared the following article on the history of blood transfusions for the local Red Cross Society, as part of their publicity for the next blood donor clinic.

## THE RIVER OF LIFE

The blood has been identified with life from remotest antiquity, scientific anatomical and physiological enquiries on the blood awaited the sixteenth century. The discovery of the microscope around 1650 made possible the recognition of red cells by Jan Swammerdam. A description of transfusion given by Giovanni Colle in 1628 claims the success for administration of animal blood under conditions where, considered with wonderment, the fact of life was not lost, that transfusions during this period, were not more frequently followed by death is probably due to the small volume of blood transfused. Transfusion was used to change humour of individuals; thus the blood of a lamb would be suitable for a choleric individual.

In 1675 Landors demonstrated that heterologous blood transfusion could lead to dangerous reaction, and that blood from an animal was mixed with that of another species or human, agglutination or hemolysis of the red cells occur. Transfusion of blood became a discredited procedure and civil and religious authorities banned its use. Thus, before 1900 over a period of a little more than three centuries, knowledge of red cells and its functions progressed sufficiently to establish most of the knowledge required for the proper use of transfusions. Ignorance of the antigen constitution of human and animal red cells kept transfusion at pre-Homeric level. Between 1900 and 1911 fundamental discoveries were made which laid the scientific basis for blood transfusion. Landsteiner in 1900 discovered three blood groups on the basis of the determination of two antigens, A and B, in the red cells and anti-A and anti-B agglutinins in blood sera. In 1902 De Costello and Sturli discovered blood group O which contained neither antigen A nor B but both anti-A and anti-B agglutinins. In 1908 Epstein and Ottenberg described practical methods for grouping of blood before transfusion. Finally, Mendel's law of heredity, first presented in 1865, was shown to apply to the blood groups by Dungen and Hirsfeld in 1911. It remained until 1924 and Bernstein to demonstrate that inheritance of antigens A, B and O as Mendelian was based on the occurrence of three allelomorphous genes A, B and O. As late as 1917 Klinger defined the importance of proper choice for transfusion. Knowledge of the chemical nature of the A B O blood factors was not to come until the work of Kohert in 1956. The modern technique of transfusion by the indirect method dates to the introduction by Hastin (1914) of sodium citrate as anticoagulant.

## The Rh Factor and Other Blood Systems

Landsteiner and Levine discovered the factors M, N and P. The practical importance of these groups was not immediately evident. The Rh factor of human red cells was discovered by Landsteiner and Wiener in 1941, through the finding that the "red cells" in 85% of a Caucasian population were agglutinated by the sera of rabbits sensitized by injection of Rhesus monkey red cells. Recognition of the importance of this in the production of hemolytic reactions by Wiener and Peters (1940) and in the mechanism of production of erythroblastosis fetalis by Levine, brought about considerable reduction in the incidence of post-transfusion hemolytic reaction and led to the treatment of erythroblastic infants by exchange transfusion first.

introduced in 1949 by Allan. In the years following discovery of the Rh factors, beginning with Morrou's (1946) discovery of antigen, a number of blood group systems other than ABO, appeared in literature; Koll, Duffy, Kidd, Latherson, Diego and Sutter. Additionally a number of group factors have been described occurring in only a few families.

The Canadian Red Cross Blood Transfusion Service provides hospitals free of charge, with blood required by the patients. But in order to satisfy the great demand for blood, the donor is the most important. Who is the donor? Everybody over 18 years of age. The human blood—river of life—cannot be substituted—it has to be human blood compatible to recipients blood. On first donation Red Cross will test donor for group type and antibodies—and issue donor an identification card which in an emergency may save donor's life. Any one of us may become a recipient and depend on a donor for life saving substance—the blood. It is good to know your own group and type of blood—if an uncommon group or type—in case of emergency the doctor may have a chance to save your life.



MR. AND MRS. JOHN MCGOWAN

## Northern Electric Employees Wed In Brampton Church Ceremony

Christ Anglican Church, Brampton, was the setting for the afternoon wedding of Dr. Anne Elizabeth Dineen, daughter of Mr. and Mrs. John Patrick Dineen of Brampton, and William John McGowan, son of Mr. and Mrs. William McGowan, Glen Williams, which took place last month.

The Rev. David Jones officiated and Kenneth Culbert was the organist at the ceremony. The church was decorated with standards of white mums and gladioli. Given in marriage by her father, the bride wore a princess-style gown in double organza over taffeta. Daisy appliques adorned the neckline, short sleeves and the bottom of the dress. A cathedral-length train fell from the waist. Her headpiece was a cluster of organza over taffeta petals and held a triple tier veil. She carried a nosegay of pink phloxes, pink rosebuds and white carnations, with pink and white streamers.

Miss Judi Meeke, was her maid-of-honor, Miss Susan Dineen, the bride's sister, and Miss Verna McGowan, the groom's sister were bridesmaids, and Miss Kelly Dineen, another sister of the bride, the flower girl. They were gowned in empire-

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and gloves and a hat in hot pink, gold and orange. Her corsage consisted of pink and yellow mums.

Mr. and Mrs. McGowan reside in Brampton, where both are employees of the Northern Electric Company.

## HORNBY NEWS

Mr. and Mrs. Arthur Plant and grandson Tommy Plant and Mrs. Elsie Bloor attended a birthday picnic in honour of Clarence Dennis who celebrated his birthday on Sunday, August 20. The party was attended by 25 guests and arranged by Clarence's sister, Mrs. Stanley Wood.

Mr. and Mrs. David Leslie and family recently enjoyed a vacation at Camel Lake.

Mr. and Mrs. Clifford Wright and family have returned home from a trip to Expo and to the East Coast.

Mr. and Mrs. Kerry Jopson and family of Georgetown were dinner guests on Sunday evening of Mr. and Mrs. Jim Hamilton.

Mr. and Mrs. Harold Robson, Bobby and Paul, left on Monday for a few days at Expo.

Congratulations to the Hornby Midgets on winning their second round of the Ontario Rural playoffs when they defeated the Innerkip Midgets two games straight. They are waiting now to enter the finals.

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## SUGAR and SPICE

## THE EXPO TRAIL

(Continued from Page 4)

people who have never seen anything bigger than the county fair dismissing the Russian pavilion as "brittle" or "ponderous," or praising the British pavilion as "subtle" or "wonderfully understated."

Whatever happens, I hope they don't take it away until we get there. What's that? You thought we'd been? Oh, no. We're just getting packed at the moment.

You don't have to go to Expo to write a column about it. I could write a book. The country is full of Expo experts who are only too ready to fill you in on everything about it after spending two bewildered days there. We've been hearing about Expo from friends, relatives, neighbours, and casual acquaintances until we have Czech blown glass coming out of our ears.

It's rather amusing to have low-

ed something. Toronto would solve the problem with dispatch. The whole thing would be knocked down smartly to make a super parking lot.

Today we leave. We're all set. My wife hasn't slept for two nights and has a blister on her heel. Kim has a fallen arch. I have a vicious ear on the ball of my foot. But never mind that. It's the spirit that counts. And ours are very

It's rather amusing to have low-

# The dead classroom



A startling and proven fact: one classroom of high school students is wiped out every week because of car accidents.

It is an unbearable statistic, but true. More young Canadians are killed in automobile accidents than by any other cause.

Young drivers as a group are involved in more automobile accidents than any other drivers. This is the simple reason insurance rates are higher for them.

We, in the automobile insurance industry, provide training courses, bursaries and technical assistance to high school instructors to help them teach safe driving to their students.

Students who pass approved high school driver training courses earn lower insurance premiums.

At present, only 14% of high schools across Canada have these driver training courses.

Parents, teachers—just ask yourselves: Must a classroom be wiped out next week?

You can help prevent such tragedies by supporting driver training programmes in your community.

All Canada Insurance Federation on behalf of  
**THE AUTOMOBILE INSURANCE INDUSTRY**

## Was Construction Superintendent with Delrex Developments

A retired construction superintendent, George P. Stephens, 68, of R. R. 2, Acton died in Georgetown Hospital on August 14.

Mr. Stephens leaves his wife Verna G. Linstead, and a daughter Betty (Mrs. Tony Damm) of Acton, brothers Albert and Earlyby of Sutton, Tom, Toronto, Fred, Los Angeles, and four grandchildren, Karen, Joan, Linda and John.

He was born March 18, 1899, and was married in Toronto on May 10th, 1917. He had lived for the past six years at R. R. 2, Acton, moving from Georgetown, where he had been employed with Delrex Developments, Ltd. Mr. and Mrs. Stephens were residents on Rexway Drive when they lived in Georgetown.

He attended Toronto schools.

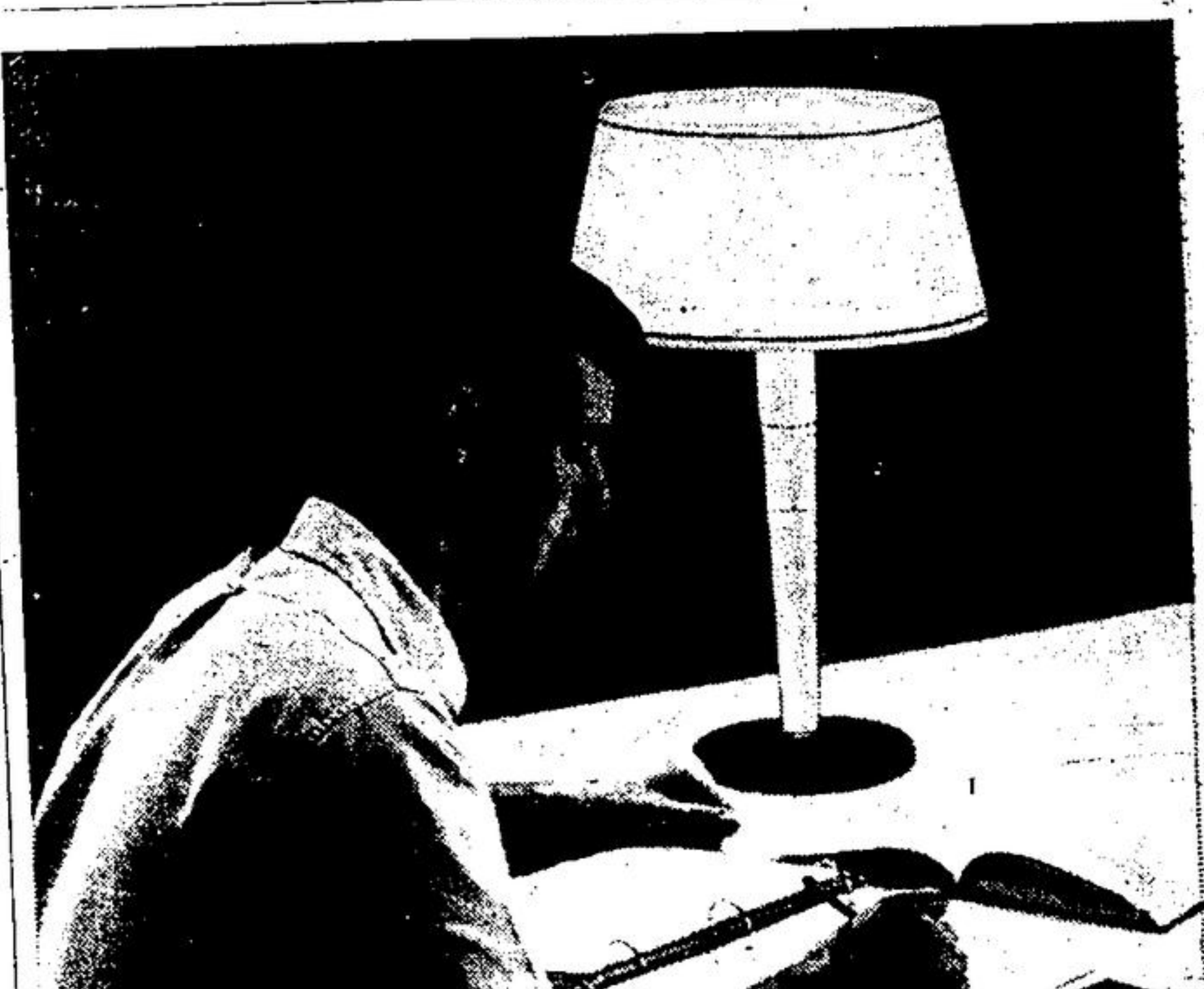
The funeral service was held at the Rumley-Shoemaker Funeral home on August 17, conducted by the Rev. W. Johnston, and interment was in Queensville. Pallbearers were Stephens John Gill, Jim Arnold, Arthur Starr, Peter and Brian Stephens and a friend, Harry Hatherly.

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