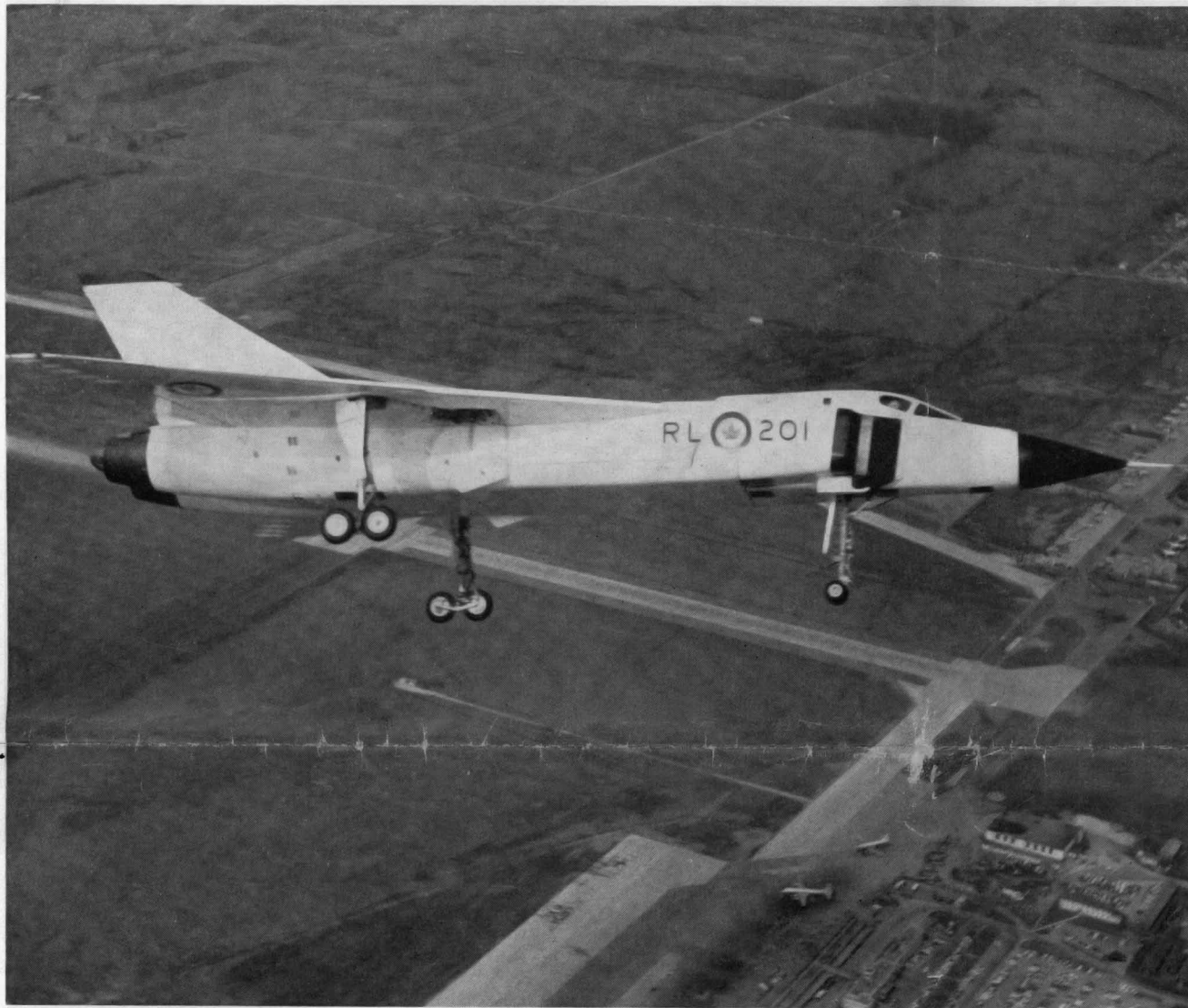


*Malton progress . . .*

# Arrow makes maiden flight

*From first jet engine to first supersonic plane in 10 years*



*Here's what the Arrow looked like as it circled Malton airport on its first flight.*

In just 10 years from the date of the initial running of the first gas turbine engine to be designed and manufactured in Canada, the Avro Arrow—Canada's first supersonic interceptor—made its maiden flight.

To have accomplished this feat within a decade is indeed a tribute to the Malton teams of Orenda Engines Limited and Avro Aircraft Limited.

It was in 1948 that the Chinook first roared to life, following the acquisition of Turbo Research Ltd. by A. V. Roe Canada in 1946. (See complete story on the first running of the Chinook on pages 3 and 4.)

Following the Chinook, came the first running of an Orenda engine in 1949. Meanwhile, the aircraft division had produced the design for the CF-100—an all-weather interceptor. With the advent of the Korean war in 1950, plans were laid for volume production of both the Orenda engine and the CF-100.

Mated together in 1951, the Orenda engine and CF-100 have combined to give Canada a reliable day and night all-weather interceptor.

See **FIRST ENGINE**  
on Page 2, Col. 6

A thunderous roar of pent up emotion and tension was let loose by a huge crowd of Avro people Tuesday morning when Chief Experimental Test Pilot Jan Zurkowski brought the supersonic Arrow to a stop following a successful 35-minute maiden flight.

Here at Orenda, word that the Arrow was up spread rapidly and many Orenda people caught a glimpse of the plane as it circled Malton and headed north on its first flight.

The flight climaxed many weeks of waiting for "the day", and for Avro people it was the culmination of four and a half years hard work on the 32-ton delta-wing interceptor.

Rising from the runway in a seemingly effortless fashion (see pictures of takeoff on page 2), the Arrow took off at 9:55 a.m. on March 25, stayed aloft for 35 minutes and touched down as gracefully as it rose at 10:30 a.m.

The Arrow climbed quite steeply, in fact steeper than most people expected. It made quite a sight as it led its two chase planes—a

See **ARROW**  
on Page 2, Col. 1



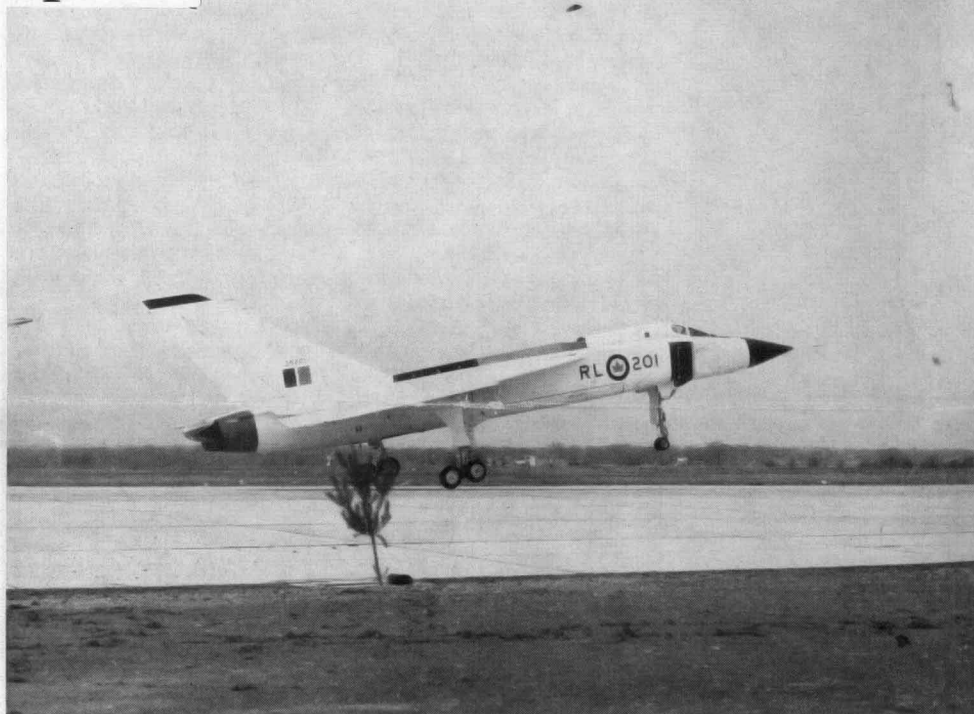
*Jubilant Avro people lift Chief Experimental Test Pilot Jan Zurkowski off ground following first flight of the Arrow.*



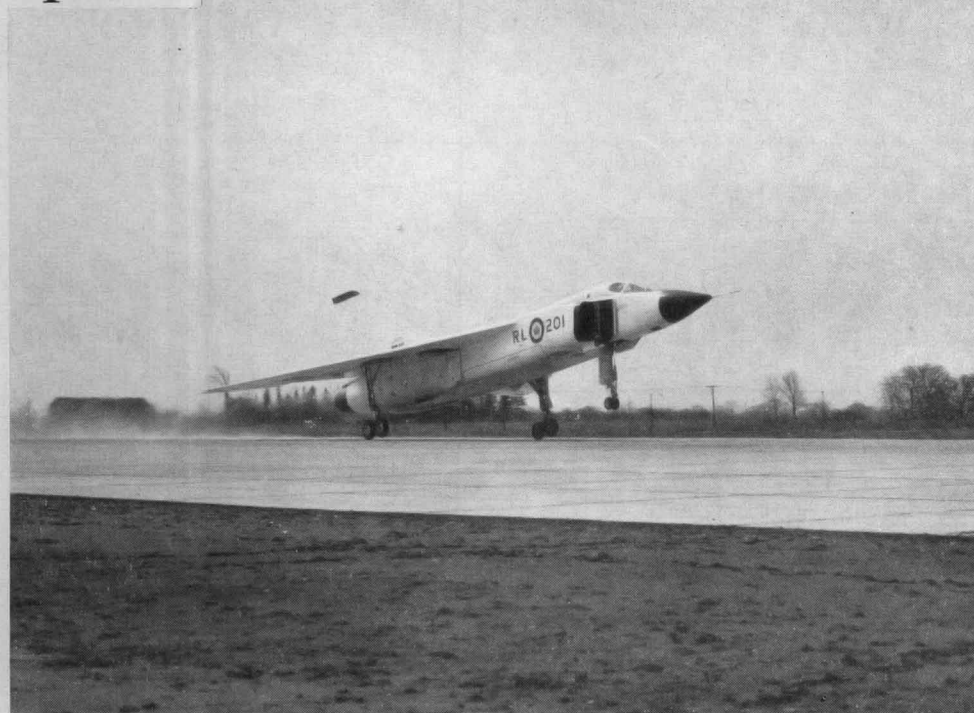
Up . . .



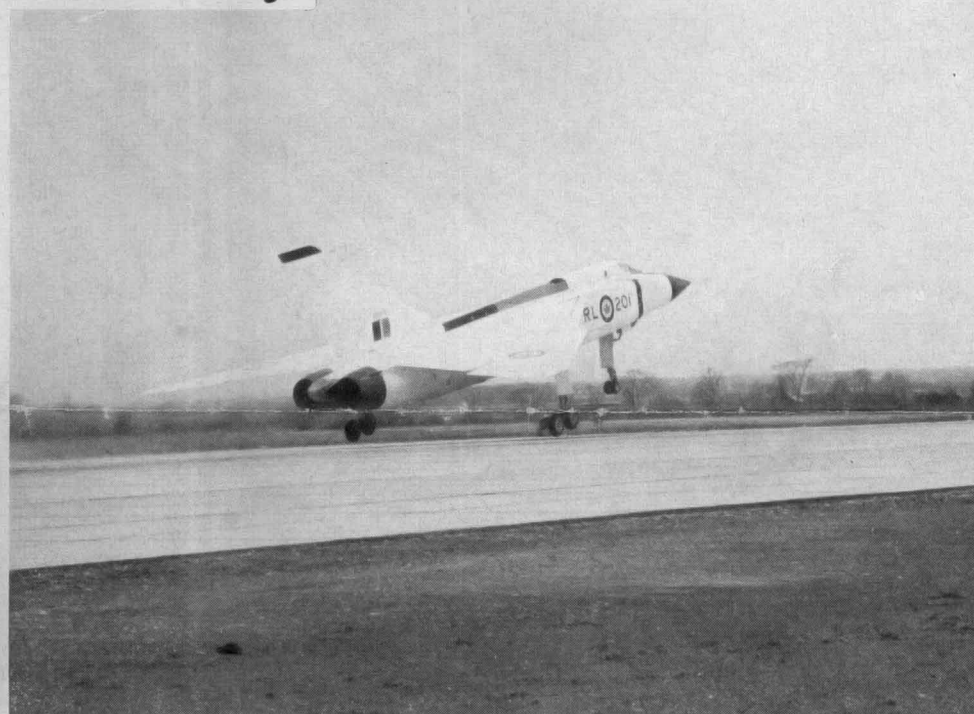
Up . . .



Up . . .



and Away



**Up, up, up and away.** The four sequence shots above show the Arrow taking off on its first flight last Tuesday at Malton airport. Top left shows the nose just coming up, while the top right picture shows the back wheels just starting to lift. Bottom left sees the Arrow completely off the ground and the right picture shows the Arrow going away.

## Arrow's maiden flight successful

(Continued from page 1)

Sabre and a CF-100. Some likened it to a duck with its two ducklings in tow.

Test pilot Jan Zurakowski took the plane up to 10,000 feet and at no time exceeded 400 miles per hour. He said it "handled quite nicely" and stated that the first flight was mainly to test the controls and instrumentation.

This was the first time that "Zura", who is acknowledged to be one of the top test pilots in the world today, has actually flown a new type of plane on its first run. He told the Control Tower that he had no complaints with the way it flew.

He was hoisted onto the shoulders of jubilant Avro people as he stepped from the cockpit and swarms of officials hurried forward to

clap his back and congratulate him.

This first, pre-production Arrow will continue with an extensive development test program and will be followed by further experimental aircraft prior to production of Arrows for operational service with the RCAF in the air defence of North America, according to an announcement by John L. Plant, Executive Vice-president and General Manager of Avro Aircraft Ltd.

From the time the basic configuration of the Arrow was established to the end of 1956, approximately 460 engineers, technicians and draftsmen worked on the design and development of the aircraft and its systems.

Aerodynamically, the Arrow enters a new realm

of science. Performance, stability and control problems were difficult to evaluate, and data had to be obtained to establish air loads on the wing, fin, canopy and control surfaces.

About 650 suppliers have been established for the Arrow development program, with more than 7,000 people becoming employed outside Avro in the manufacture of parts and tools for the aircraft.

The first Arrow's man-hours-per-pound ratio is approximately 80 percent of projects of similar size and complexity throughout the aviation industry in North America.

• The Arrow required control mechanisms sufficiently powerful to lift the equivalent of six elephants standing on an elevator.

• Wiring in the Arrow extends 11 miles and there are enough tubes to take care of 200 TV sets.

• There are 800 separate relays, fuses, switches, terminals and other pieces of

electrical hardware in the plane.

• At 1,200 miles per hour, the approximate anticipated speed of the aircraft, air friction raises the temperature of an aircraft's skin by 300 degrees F.

• To achieve its supersonic speeds, the Arrow uses about twice as much power as that required to drive the Queen Mary. This power, which will later be provided by Iroquois engines designed and manufactured by Orenda Engines Limited, is almost sufficient to lift the Arrow vertically off the ground.

• At a speed of 1200 miles an hour, at high altitudes, the perspex canopy enclosing the pilot and radar-navigator would start to blow out like bubble gum—because of high temperature caused by skin friction, plus the fact that the inside of the canopy is pressurized. This was overcome by installing tempered glass windshields about an inch thick.

• Air conditioning system in the Arrow must be capable of handling temperature changes of 100°F. a minute. The refrigeration capacity of the system would be equivalent to 50 domestic room air conditioners and could produce as much as 23 tons of ice per day. The system could also change the air in a room 20 ft. x 12 ft. with a 10 ft. ceiling 10 times per minute.

• There are 13,000 parts in the CF-100. In the Avro Arrow there are 38,000.

• Some 17,000 engineering drawings were released for the Arrow 1.

• When design began on the Arrow, many of the special metals and materials required had not even reached the research stage.

• During design, literally millions of calculations were made by mathematicians working with the latest computing equipment.

## First engine

(Continued from page 1)

tor, and have been sent to Europe for NATO defences as well. Belgium recently selected the CF-100 and Orenda engines as being best suited for its requirements. Orenda engines are also used to power Sabre aircraft.

Designs for the supersonic Arrow and the Orenda Iroquois engine, which will later power the Arrow, were started in 1953. Test flights are being conducted on the Iroquois in a B-47 bomber, and this week saw the first test flight of the Arrow. Pratt & Whitney J-75s are being used for the flight testing of the Arrow at present, since it is inadvisable to try out untried aircraft with an untried engine.

However, when production models come off the lines, the Arrow and Iroquois will combine to give Canada a top notch supersonic aircraft.



## Sign of Spring



A sure sign of spring. The selection of a new bonnet for Easter is pictorially displayed here by Photographer Cliff Heckel. Bev Whyte, IBM Tabulating Department, is shown approaching the hat shop, then with a bit more interest she presses up against the shop window to gain a better look at one of the new creations. Inside now,

Bev looks critically at a wide brim model shown to her by Noleia Robillard of the Day-Tonn Hat Shops Ltd., Yonge and St. Clair. Finally, Bev looks pleased with the selection as she tries it on in front of the mirror. It is expected many Orenda girls will participate in the annual Easter parade in their new finery following church services.

## Chinook anniversary

# Ten years since initial running of first gas turbine in Canada

"Wednesday evening, Mar. 17, 1948—1st TR4 run successfully on first start. 2nd start made without blowoff valves. Run up to 5,000 rpm. Idled nice at 1,900 rpm. Starts in 30 seconds. 1st run seven minutes, 2nd run 50 minutes."

This was taken from the diary of Stu Rahmer, Chief Experimental Material Control, who recorded the initial run of the first gas turbine aircraft engine designed and manufactured in Canada.

This month marks the 10th anniversary of the Chinook running, and although made obsolete a year later by the running of the Orenda, it paved the way for the present supersonic Iroquois engine and an entirely new Canadian industry. (See page 4 for more details on start of Chinook).

The start came with the acquisition of Turbo Research Ltd., a crown company, by A. V. Roe Canada in May of 1946. Turbo Re-

search had done some preliminary design work on paper of the Chinook. This work was started in earnest in 1946 and resulted in the 1948 running of the engine.

Less than a year after the first running of the Chinook, the first Orenda roared to life. The date was February 10, 1949. The thrust at that time was 5,800 pounds. The Korean war start in 1950 sent A. V. Roe Canada into the production of Orendas. In October of 1950, the Orenda was flown in a service aircraft—the F-86 Sabre—for the first time. Later it was to power production models of the Sabre built in Canada.

In 1951, a gas turbine division of A. V. Roe Canada was constituted, and it was in that year that the Orendas were used in the aircraft division's new CF-100. In 1952, the present production plant (Plant 2) was officially opened and at this point only 30 engines had been built. To date, nearly 4,000 have been built

MARCH 17  
1948 WEDNESDAY EVE  
(CHINOOK)  
1st TR4 RUNS SUCCESSFULLY  
ON 1st START. 2ND START MADE  
WITHOUT BLOW OFF VALVES AND RUN UP  
TO 5000 R.P.M. IDLES NICELY AT 1800 R.P.M.  
STARTS IN 30 SECONDS; 1ST RUN 7 MIN.,  
2ND RUN 50 MIN.

THIS NOTATION was reprinted directly from the diary of Stu Rahmer, Chief Experimental Material Control.

for service in Europe, South Africa, South America and Canada.

By 1954, Orenda engines for Sabres and CF-100s were developing more than 7,000 pounds thrust. Design of the Iroquois was also started in this year. In 1955, the gas turbine division became Orenda Engines Ltd., a separate corporate entity with its own management. The first sale of an Orenda to another country came in this year as well.

1956 saw the Iroquois pass its 50-hour pre-flight rating test as development of the supersonic engine continued. In 1957, development test cells and a high added to further develop the

Iroquois.

The first flight tests of the Iroquois were held in 1957 in a B-47 bomber. Now rated at more than 20,000 pounds of thrust, the Iroquois is intended to power the new CF-105. The Iroquois has also been licensed to Curtiss-Wright Corporation for the manufacture and sale in the United States.

To achieve this rapid development, Orenda has extended its facilities greatly. The company now employs approximately 5,000 people in three plants—two at Malton and one at Nobel—and has more than one million square feet of floor space under more than 21 acres of roof.

## Orenda wins NSC "Award of Merit"

Orenda Engines Limited has been awarded an Award of Merit by the National Safety Council for its 1957 safety record.

Last year, Orenda gained the N.S.C.'s Award of Honor for its outstanding record in 1956—2.32 lost time accidents per million man hours worked.

The 1957 industrial accident record was not quite so good—2.61 lost time accidents per million man hours worked. However, it was good enough for the Award of Merit.

To receive this award, our accident experience had to be 38 percent or more above par. This is a figure established by the N.S.C. based on previous

experience in this industry. This year we met it by the skin of our teeth. Our experience being exactly 38.000 percent better than the par.

Safety Engineer John Swanson states that next year it will be harder to better par, because we have had two good years and the par figure will be lower. To earn an Award of Merit for 1958, the number of lost time accidents must be less than two per million man hours worked.

To gain the coveted Award of Honor, there would have to be less than 1.3 accidents per million man hours worked. Difficult targets to reach, but worthwhile.

## John Swanson receives invitation from "Ike"

Upon invitation by President Eisenhower, Orenda Safety Engineer John Swanson this week attended the President's 10th Anniversary Conference on Occupational Safety.

Held in Washington from March 25-27, the conference theme was "Safety Conserves Manpower" and "Manpower Builds the Future." The 4,000 delegates considered methods of safeguarding the changing labor force against the emerging technological hazards of the Space Age.

It is expected that the next decade will face a relative shortage of men in the prime working ages and

great increases in older and younger workers and women. To the well-known hazards will be added those resulting from wider uses of nuclear energy, new chemicals and space flight both in research and production. Commemorating its 10th anniversary, the conference assessed past progress and problems as guides to the safety challenge of the future.

President Eisenhower greeted the delegates, and Secretary of Labor James P. Mitchell, as well as other leading figures of industry and labor, talked on the very important aspects of safety.

## Chinook paved way for new Canadian industry

Not only has the Chinook led the way for the Orenda and Iroquois engines, and the establishment of Orenda Engines Limited, but it has also paved the way for a totally new Canadian industry.

As of August last year, there were more than 110 Canadian suppliers directly engaged in the supply of engine parts and tooling to Orenda. These 110-odd suppliers provided jobs for some 3,375 people in Toronto (2,221), Ottawa (167), Eastern Ontario (140), Niagara Peninsula (335), Montreal (335), Montreal (204), Western Ontario altitude test facility were (31), Central Ontario (139)

and Winnipeg (138). These figures represent people directly engaged in filling Orenda orders.

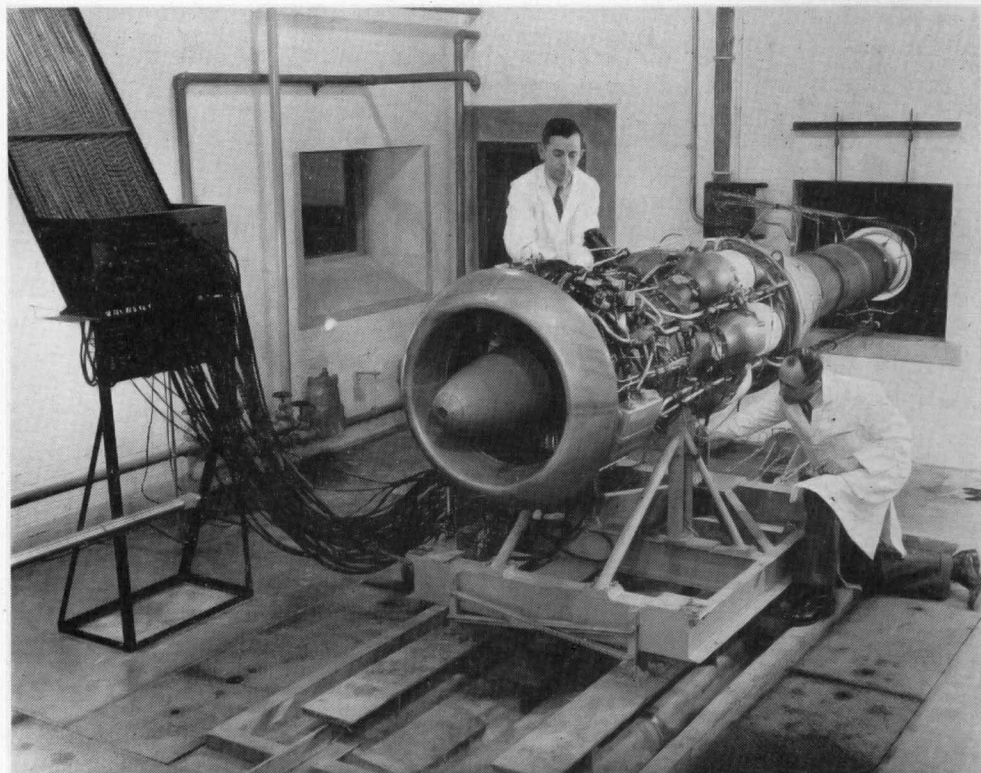
Actually, there are some 2,100 firms who supply, in some way, materials, components and services to Orenda. The Orenda engine is primarily Canadian content.

While many of these 110 suppliers were already established prior to the running of the Chinook engine, it made way for six completely new companies. These were: Canadian Steel Improvement; Light Alloys Ltd.; Lucas-Rotax; Renfrew Aircraft and Engineering Co. Ltd.; The H. I. Thompson Co.; and York Gears.



THIS PLAQUE appears on the Chinook engine in the Plant 2 lobby.





**CHINOOK TEST BED.** Ed Caswell, now Chief Projects Engineer, and Max Nerriere (kneeling), now Senior Technical Representative, are shown checking over the Chinook on its test bed before its first run in March of 1948.

## Orenda people recall problems in preparing Chinook for first run

Being the first gas turbine engine ever to be designed and manufactured in Canada, naturally the Chinook presented many problems to both the design and manufacturing people.

Taking a quick survey of the people primarily engaged in the design and manufacture of the Chinook in 1948, one finds that the close tolerances needed for aero engine manufacturing presented the largest headache.

As J. A. "Bert" Marcoullier, Superintendent Assembly, says: "It was an amusing stage of the game. We were all learning."

He found the toughest problem to be the micro finishes needed for aero engine work. A gauge of surface machining, this had not been used in Canada up to this point. The manufacture of blades also presented a

There was very little component or development testing prior to the first run of the engine. It was assembled, then run. The only part not on the engine at the first running was the electric starter. An ordinary electric motor was put up at the front end and used to start the engine. This was operated by the old street car type of regulator.

Chief Engineer Harry Keast, who was in charge of the aerodynamics section at that time, said the compressor was of a fairly conservative design to make sure that it worked. The Chinook was first fitted with blowoff valves, a safety measure in case of surge due to mismatching of compressor stages, but these were taken off after the first run proved them unnecessary.

Mr. Keast remembered

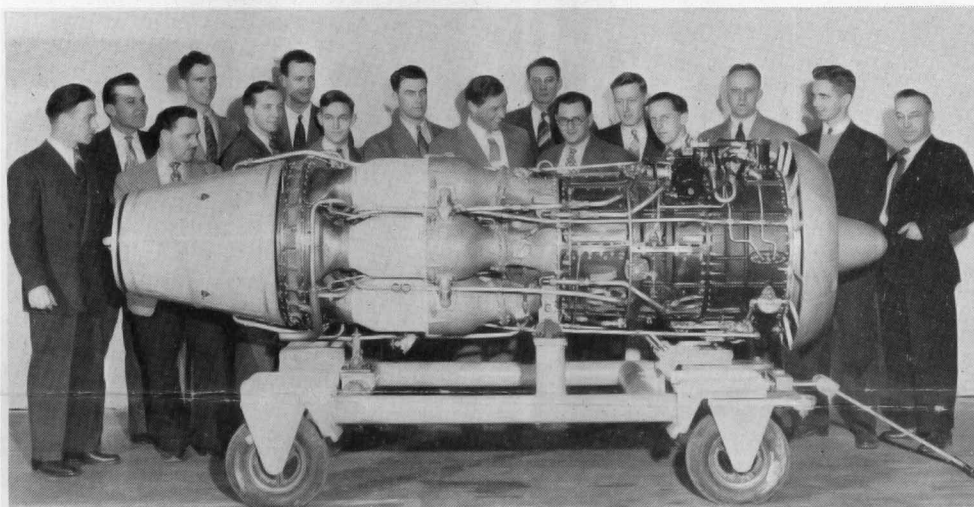
paratus and the training of the test crews.

"There were quite a few problems," said Mr. Caswell, "but perhaps the biggest headache was keeping the visitors out of the test house. It was a momentous occasion in Canada's history and this project had attracted a lot of attention. Everybody wanted to be in on it."

Air Vice Marshal A. L. James, then the Air member for Technical Services, pressed the starting button, while Air Vice Marshal W. A. Curtis, then Chief of Air Staff, took over the throttle after the Chinook had reached idling speed.

"There was one heart-breaking moment," said Mr. Caswell. "That was when the circuit breakers dropped out. We found we'd hooked the blowoff valves and the igniter booster coils on the same system. When the circuit breakers dropped out you could see the perspiration stand out on everyone's forehead, but the engine had gained enough momentum to keep going and as combustion kept going we breathed much easier."

A great majority of those who worked on the Chinook are now working on the supersonic Iroquois engine, but they'll never forget those first few days of the Chinook start.



**CHINOOK DESIGN TEAM.** The group in this photo were mainly responsible for the design of Canada's first gas turbine engine. From left to right they are: Bill Willis, Burt Avery, George Willis, Joe Purvis, Syd Britton, Mel Phipps, Lloyd Secord, Dave Parker, Winnett Boyd, Sherman Lindsay, Harry Keast, Doug Culham, Jean-Paul Laviolette, George Thomds, Cec Wood and Thomas Shuman.

## We see where...

... Charles Grinyer, Vice-president, Engineering, spoke to students of Brampton High School on Tuesday. He was introduced by Colin Campbell Jr., son of Orenda Technical Representative Colin Campbell, who in turn spoke to students at the Ontario Training School in Brampton on the very same day.

... John Brennan, Technical Illustrator, who started a column in the last issue with a spiel on the chemise, had some very fine comments on his work. John's column is missing this week due to a lack of space. It will appear next issue.

... Walter Winslow, Supervisor Engine Standards, served as co-chairman of one of the sessions at the annual meeting of the Standards Engineers Society in New York. Walt is also secretary-treasurer of the Toronto-Hamilton section of the S.E.S.

... Ernie Print, Purchasing Planning Department, who also operates a small grocery store in Port Credit, recently talked a would-be bandit out of robbing his store. The gun-toting hoodlum fled after Mr. Print told him to "get out of here because I haven't any money."

... Mr. and Mrs. Eric Smith's triplets appeared on CBC's Tabloid Monday night with other sets of triplets. The appearance was in connection with their modelling new spring outfits in Honest Ed's Fashion Show in Toronto tomorrow (Saturday), says Mr. Smith, Standards Department.

## Bill Barker's rink captures Nobel bonspiel

Bill Barker's rink, consisting of his wife, John Condon and Elsie Loch, took first place in a recent curling bonspiel at Orenda's Nobel establishment.

The Barker rink had 11½ points and a score of 13. In second place with 11 points and a score of 16 was a rink skipped by Bob Rennie. Members of this rink were Mr. Rennie, Mrs. Vera McLeod, Dave Scrimgeour and Mrs. Scrimgeour.

The booby prize went to the Dodd rink. This rink included Mr. and Mrs. C. Dodd, and Mr. and Mrs. Bill McKinstry. They managed to get 1½ points and a score of one.

## Obituary

Ed Jones, 36, Test Equipment Design, died on March 18 following a lengthy illness. Mr. Jones had worked here since November of 1946. He is survived by his father.

problem. This project was started right from scratch and blades were at first turned out by hand. Each blade had to be hand fit as well.

Dave Parker, who headed a design team on the Chinook, said many arguments ensued as to whether a part could be made to such fine tolerances. "In some cases, we were right," said Dave. "Other times the manufacturing people were right. It was a learn-as-you-go deal."

Dave Parker, Joe Purvis, Mel Phipps, Sherman Lindsay and Jean-Paul Laviolette had been with the Chinook design at Turbo Research Ltd. When A. V. Roe Canada took the crown company under its wing, these engineers combined with Doug Culham, Burt Avery, Ken Jay, Lloyd Secord, Cec Wood, E. J. Crowther, A. D. Moore, Bruce Torrell, Harry Keast and others to form a young design team under the guidance of Winnett Boyd.

Mel Phipps chuckles over the very loose control of components and specifications at that time.

"We sort of made up our own rules and regulations as we went along," he recalls.

that John Brisley, who was in charge of the test run, was quite nervous. He kept going through a whole series of dummy runs before he eventually took the plunge.

"The boys were getting quite edgy," said Mr. Keast.

Doug Culham, who worked on the fuel systems for the first Chinook engine, remembers reading the jet pipe temperature in the observation room for the first start.

"There was a lot of tension before the event," said Mr. Culham. "The whole gas turbine group was on hand to witness the running and we had runners going from the observation room to tell the people what was happening."

The first test crew consisted of: John Brisley, Ed Caswell, Norm Herbert, Fred Tarnowetski (the driver), Lloyd Secord, Doug Culham, Joe Purvis, Cec Wood, Jean-Paul Laviolette, Fred Thomas, Max Nerriere, Alex Callander and Rex Webber.

Ed Caswell, Chief Projects Engineer, who was in charge of the engine test run in 1948, had the job of supervising the installation of equipment and test ap-

## OEWSF supplies 62 gift packages

In just three and a half months, the Orenda Employees Welfare Service Fund has supplied 62 gift packages to hospitalized Orenda people.

The service, started November 29, 1957, is designed to supply cigarettes, matches, chicklets, and candy life savers to Orenda personnel who are hospitalized.

Any Orenda person who is visiting a fellow employee in hospital is invited to pick up one of these gift packages from Personnel Services.

## Chief Stewards for Lodge 717

The following Orenda people have been elected Chief Stewards of Lodge 717 for the current year.

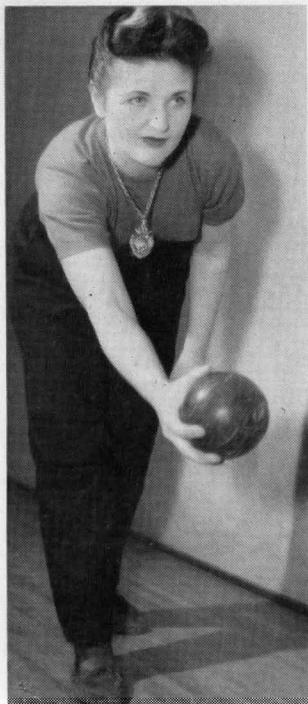
Lawrence Hircok, Dept. 2220; Fred Goldby, Dept. 2741; Ernest Brock, Dept. 2742; Walter Duncan, Dept. 2744; Thomas Sowerby, Dept. 2970; Edwin Pope, Dept. 2970; Alfred Pepe, Dept. 5222; William Weir, Dept. 5234; William Gallagher, Dept. 5343; Gordon Libby, Dept. 5344; Lawrence Donnelly, Dept. 5453; Joseph Pearson, Dept. 5783; Bernard Head, Dept. 5783; Arthur Williams, Dept. 7320; William Baillie, Dept. 6331; and Andrew Bell, Dept. 8223.



**KOREAN WAR PERSONALITIES** Squadron Leader Andrew R. MacKenzie (left) and Flight Lieutenant Ernest A. Glover examine the Orenda 11 cutaway with Orenda Technical Representative Don Hunter. S/L MacKenzie was the only RCAF prisoner of war during the Korean conflict, while F/L Glover became the first peacetime RCAF man to win the U.K.'s DFC. He shot down three MIGs and damaged two in five months in the Korean war. They were among 12 RCAF men from the Sabre Day Fighter Leader qualification course that toured Orenda.



# Ballet in bowling



MARY DWYER shows the form that has given her top ladies' high average with a 231 mark.



TOP BOWLERS. These people have the top triples and singles in the Toronto Mixed Bowling League. Left to right—Clare Hutcheon (376); Lorraine Kennedy (960); Bill Johnston (901), and Noreen McDoulton (364).



BILL ROBERTSON, shown in the above shot, has a 234 average to lead the men in the Toronto Mixed League.

## Body English used by all trundlers

What with the bowling tournament tomorrow (Saturday, March 29) and the playoffs approaching in the Toronto Mixed Bowling League, we thought we'd see how some of the top bowlers perform.

What makes a top bowler? For some time we have had a suspicion on this subject, and in order to prove a point Photographer Cliff Heckel was asked to take some action shots of top bowlers in the Toronto Mixed Bowling League.

The accompanying pictures to the left prove out the suspicion. It's body English that makes the bowler. There's all types of antics gone through on the bowling alley, and it's common with almost every trundler.

Whatever the manner in

which they bowl, there are more than 300 Orenda people bowling in the Toronto, Brampton and Acton leagues, and probably more bowling individually with other teams in their respective communities.

Clare Hutcheon, who heads the bowling committee, reports that more than 110 have entered the tournament tomorrow at the Studio Bowl on Eglinton Avenue.

## Recreation Club cards

Recreation Officer Ron Forbes announced this week that the new Recreation Club membership cards for 1958-59 will be sent out to members through the plant mail in the first or second week of April.

## What Do You Think?

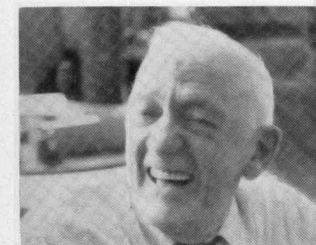
Do women make good politicians, and would you like to see a woman as Prime Minister some day?



Jim Cofell, Non-Ferrous Lines: "I definitely think women make good politicians. The reason being that the few women who have entered politics haven't made fools of themselves. If a woman stood for the working man and had the right qualifications, I think she'd be a good P.M."



Ruth Flauder, Contracts and Parts Section of Sales and Service: "Yes, to both questions. I think women make good politicians because they have logical minds and can get to the bottom of things. They're tenacious. If they have the qualifications, I think they'd be good prime ministers."



Fred Thomas, Inspector, Experimental Engine Assembly: "Women are darn good politicians, because I've seen a lot of them in action. However, I don't think they're capable of running the country as Prime Minister."



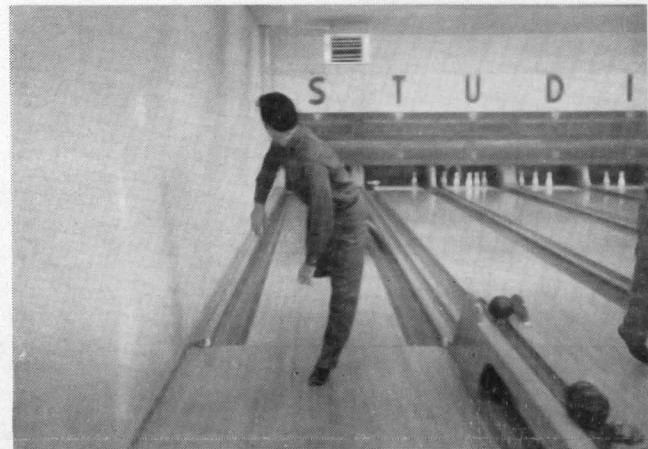
Rosemary Sigurdson, Records and Scheduling Department: "No. I don't think that women have enough interest in politics to be good politicians. I don't think they'd be capable enough for the prime minister's job."



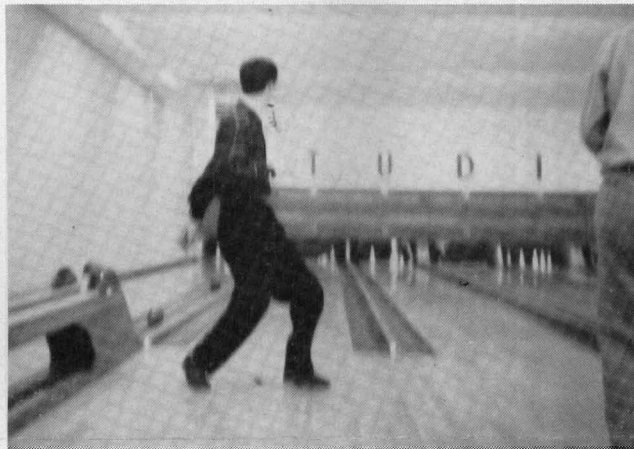
Betty de Jersey, Drafting Department: "I think women are good politicians. But a woman has to be a certain type before entering politics. I wouldn't like to see a woman as Prime Minister though."



Eugene Carlton, Mechanical Development Laboratory: "In general, women don't make good politicians because they're too excitable and change their mind too often. I wouldn't want a woman prime minister."



LIAM DWYER puts every bit of body English into his shots in the Toronto Mixed Bowling League action, as shown in the above picture.



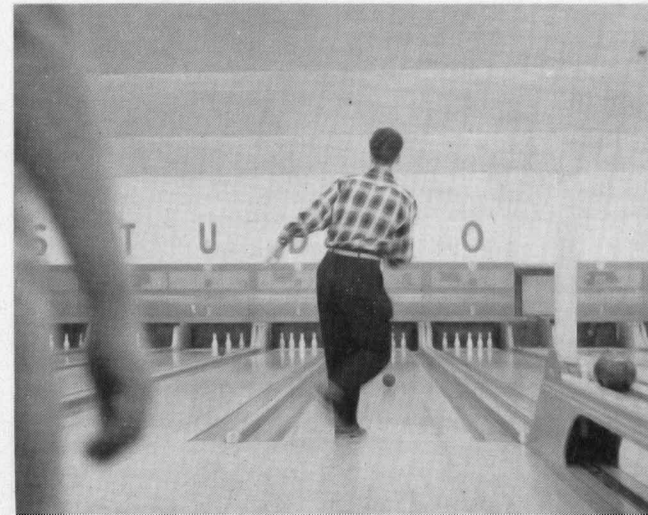
JITTERBUG FAN? No, just Bill Main waiting for the three pin to knock down the five pin for a strike in the Toronto Mixed Bowling League.



NEW DANCE STEP? Bill Kennedy does a fancy little front step to direct his bowling ball in the right direction for a spare.



NOREEN McDOULTON isn't too pleased about leaving the head pin up as she walks off the alley. Berle Paterson is getting right down for her shot.



THAT BACK kick by Doug Goddington is designed to send the bowl down for a strike. Watch the foul line Doug.



BETTE BILLINGHURST displays fine form in this shot as she lines up the pins for a strike. She made it too.





## Kennedy comments on Sport

by John T. Kennedy

Last Saturday, March 22, wound up the hockey season for Orenda as the "Nobel All-Stars" took the return exhibition match with the Jets at Parry Sound 4-2.

The Turbo Jets, who won the Orenda House League Championship this year, offer no excuses for their defeat by Nobel. However, looking at it as a home and home series, the Jets came out on top 9-7. Earl Thomas starred for Nobel, netting a brace, assisted by Garnet Hunter and Don Kingston on one, and Hunter on the second. Singletons were picked up by Lionel Dunk from K. Dunk, and Wally Walwaski from Howard Orr. Jets goal-getters were Bill Mitchell from Don Sheardown, and Jim Thompson from Mitchell.

This game saw more body contact than the first game at Brampton in which no penalties were handed out. At Nobel, the sin bin was visited by six Nobel and seven Jet offenders.

### ORENDA GOLF CLUB

The golf season is upon us, and from all indications it looks as though the golfers will be blessed with an early start. Possibly some of you have already ventured out, at least to your putting green in the back yard.

Once again the golf club would like to remind you that any member, "male or female" of the Recreation Club is invited to join and enjoy the reduced green fees at the Woodbridge Golf Club. Another full program of tournaments and match play competitions will be held. Beginners and high handicap players are encouraged towards a better understanding of the game and don't forget the practise range on the recreation area just east of Plant #2 may be used "free" of charge.

Application forms and further particulars are available from the Recreation Office, golf committee or your Recreation Representative. The golf members enjoyed a wonderful season last year and this was made possible by the hard working committees, so don't miss out this year.

### HERE AND THERE

The recent passing of Ed Jones last week was mourned by many of us, and our deepest sympathy goes out to all concerned. Ed, who was well-known throughout Orenda, was one of the best and truest sportsmen a fellow could know. His main main activities were golfing, bowling and softball. Both team mates and opponents will certainly miss his participation.

The Orenda Gun Club has its new schedule drawn up and posted on the bulletin boards. Sunday, April 6, is the start.

### ON THE ALLEYS

To-morrow, March 29, the second open bowling tournament of the year will take place at Studio Bowl on Eglinton Avenue. Entry forms were pouring in last week and more interest is being shown with each tournament. A lot of work goes into organizing a day like this, as Clare Hutcheson should know, and its up to you guys and gals to turn out. Anything can happen in five games and there are terrific prizes for each group.

The schedules in the leagues are running out and top teams are fighting it out, as well as those fighting for playoff spots. In the Toronto Men's with four nights to go, including March 24, Whiz Kids lead the pack with 125 points, Clockwatchers next with 121, Beginners 120, Rinky Dinks 114 and Rookies 113. In the Toronto Mixed, as of March 19, Hotshots were in front with 127, Orendas with 124 and Pin Heads 110. The Brampton Men's division saw Burke's team on top with 109 as of March 11 with their closest rival, Kolbecks team with 104.

### BOWLING SCORES

**Week's High Triple**  
Toronto Mixed—March 19:  
Noreen McDoultion (Fourpins) 697; Al Speir (Hotshots) 879.  
March 12:  
Noreen McDoultion (Fourpins) 807; Al Speir (Hotshots) 781.  
Toronto Men's—March 17:  
Al Speir (Mock Up Six) 893;  
Larry Goodings (Turbos) 890.  
March 10:  
Archie McIntyre (Rockets) 844;  
Frank Forbes (Zodiacs) 798.  
Brampton Men's—March 11:  
W. Stewart, 954;  
March 4:  
R. Brown, 864.

**Week's High Single**  
Toronto Mixed—March 19:  
Olive Gmyz (Orendas) 314; Jim McDoultion (Fourpins) 321.  
March 12:  
Helen Mason (Scuttlebumps) 302;  
Ken Dobson (Jets) 332.  
Toronto's Men's—March 17:  
Bill Robertson (Clockwatchers) 396; N. Gardner (Dukes) 348.  
March 10:  
Charlie McQueen (Tin Bashers) 341; Jack McLaren (Misfits) 335.  
Brampton Men's—March 11:  
E. McFadden, 345;  
March 4:  
J. Hilson, 332.

Congratulations to our sports editor on the birth of a baby girl.



**HAPPY PRIZEWINNERS** at last Saturday's Orenda Recreation Club dance at the Crang Plaza are shown in this group shot. Winners received an electric frying pan, electric percolator, electric iron, electric kettle and an electric toaster.



**NEW OFFICERS.** The 1958-59 executive of the Orenda Recreation Club is shown in this picture. Left to right are: Leo Sauve, treasurer; Bill Mitchell, vice-president; Bill Anderson, president; Ted Heather, vice-president; and Cleo Cameron, secretary.

## Elect William Anderson Recreation Club president

William Anderson has been elected president of the Orenda Recreation Club for the 1958-59 season.

Vice-presidents are William Mitchell, last year's president, and Ted Heather. Cleo Cameron is secretary and Leo Sauve is treasurer.

Following is a list of the committees, and in all cases the first name on the list is the committee chairman.

Budget committee—Clare

Hutcheon, Ken Hurst, Norm Fenton, Pete Willson, Leo Sauve and Don Doran. Picnic committee—Bill Mitchell, John O'Connor, Ron Carson, Roy McCall, Charlie Snow, Larry Miller and Keith Burton.

Christmas party committee—Dave Geraghty, Larry Miller, John O'Connor, Iris Aishford, Don Doran, Ted Heather, Bill Mitchell and Ron Carson. Constitution

and by-laws committee—Bill Mitchell, Dave Geraghty, Iris Aishford, Doug Goddington, Roy McCall and John Kennedy.

Dance committee—John O'Connor, Don Doran, Doug Goddington, Dave Geraghty, Gus Johnston, and Iris Aishford. Recreation area committee—Ron Carson, Ted Heather, Larry Miller, Bill Mitchell, Harry Holdsworth and Jack Lovegrove.

Community relations committee—Ted Heather, Harry Holdsworth, Clare Hutcheon, Ron Carson, Jack Lovegrove and Aubrey Smith. Ways and means committee—John Kennedy, Ted Heather, Pete Willson, John O'Connor, Clare Hutcheon, Barry Insko and Bill Mitchell.

Holiday flights committee—Dave Geraghty, John O'Connor, Gus Johnston and Keith Burton. Hockey festival committee—John O'Connor, John Kennedy, Don Doran, Dave Geraghty and Larry Miller.

Publicity committee—Doug Goddington, Don Doran, John Kennedy, Charlie Snow, Harry Holdsworth and Aubrey Smith. Fishing contest committee—Pete Willson, Roy McCall, Gus Johnston, Charlie Snow and Jack Lovegrove.

## Want Ads

This want ad service is offered free of charge to Orenda personnel only. Turn all ads in to Employee Services Dept. and not The ORENDA. Include your name, home address and home telephone number, in that order, at the end of your ad.

### FOR SALE

English "Pedigree" baby carriage, navy-blue. Co. a. h. built body. Chrome wheels. Good condition. \$25. Telephone BU. 6-2212.

Two-Burner Rangette with oven. Excellent condition. Telephone BU. 6-2516.

Table and floor lamps, Scatter rugs, Runner, Tables, etc., suitable for a cottage. Telephone CH. 1-0857 after 5.00 p.m.

Coffee Table, walnut, Swedish design. Reasonable. Bolton 704.

Roller Skates, new condition. Size 7. Black boots and plastic wheels. Telephone LE. 6-7686.

Baby Commode, like new, complete with tray and beads. RO. 7-3241.

7 cu. ft. refrigerator and 4-burner electric stove. Excellent condition. Reasonable. Telephone CH. 6-3698.

Wardrobe Trunk, excellent condition, damp proof, sturdy construction. Fitted with hangers, drawers, shoe box, etc. \$35 or best offer (\$120-new). Telephone CH. 1-6718.

30" Moffat electric stove. \$25. Telephone CH. 1-1594 after 5 p.m.

18 h.p. Johnston Outboard, fuel tank, approx. 5 hrs. running time since purchased, \$200. Brampton GL. 1-6752.

### CARS FOR SALE

1954 Meteor, 2-tone, white side-walls, heater, turn signals, 31,000 miles. Well maintained condition. Telephone CH. 6-2564 evenings and week-ends.

1955 Oldsmobile, 2-tone, green and cream, hydramatic, heater, radio, new tires. Mileage 28,000. A-1 condition. Brampton GL. 1-6752.

### PROPERTY FOR SALE

Ridgewood Estate, Malton. 4-month old Burcon bungalow with full basement. Down payment, \$1600 plus cost of improvements. Owner compelled to sell, no profit asked. Telephone BU. 6-2212.

### ACCOMMODATION AVAILABLE

Beautiful 6-room brick bungalow, 6 months old in Georgetown. Newly-decorated and landscaped. Available April 23, 1958. Telephone Woodbridge Atlas 8-0888. 1½ storey house for rent. 3 bedrooms, \$115. Streetsville area. TA. 6-2591.

Furnished room, cooking facilities. Located in Malton. Suit one person BU. 6-8808.

Bedroom, fully furnished. 33 Hagar Avenue, Toronto (Runnymede and St. Clair). Parking facilities. RO. 2-1213.

Parkdale, nicely-furnished fully-equipped apartment including TV and garage. Suit two gentlemen. Telephone LE. 3-3601.

Apartment for rent. 3 rooms self-contained and completely furnished. Suitable for young couple. CH. 4-5045.

## New ratepayers group in Malton

The two new subdivisions in the Malton area, which have provided homes for some 135 Orenda families and many Avro people, have initiated a new Malton Ratepayers Association.

This association, which is divided into four areas—Ridgewood Estates (across from Orenda), old Malton, new Malton (wartime housing) and Marvin Heights—has elected four A.V. Roe Canada people to the executive.

Frank McKechnie, of Avro, is president; Jack Baillie, of Avro, is vice-president; Bob Tervitt, of Avro, is secretary; and Bill Newbound, of A. V. Roe Canada's Internal Audit, is treasurer.

At the next general meeting of the group on April 9 in the Malton Community Hall, Reeve Mary Fix will show a movie and address the meeting. All ratepayers are invited to attend.

