

THE *Aircraftman*

Technical Training School • St. Thomas, Ont.

June, 1944



Flight Engineer

First Hobby Fair Makes Hit

WITH Wing Commander A. G. Vince, M.B.E., starting the event officially on its way, the first annual Hobby Show at TTS was held on the evenings of June 7 and 8, and the keen interest evinced by the several hundred visitors was a mark of its success.

The ten hobby groups or clubs at TTS, all represented by exhibits, were the Music Appreciation Group, Glee Club, Archery Club, Stamp Club, Art Club, Press Club, Camera Club, Hospital Hobby Club, W.D. Crafts Group, and Hobby Club. For the most part they have been formed only within the past year or year and a half, but the wide variety of displays and the skill employed in their making was regarded by all as evidence of outstanding progress.

"I had no idea such extensive spare-time work was being done here on this station," Wing Commander Vince stated, in declaring the fair open. Referring to the opportunity given to service men and women to keep their civilian occupations "up-to-date," the new C.O. also noted that by this means considerable relief was being afforded "to those unfortunate enough to be confined to hospital."

It would be unfair to pick out any single group for special mention, and space prevents reference to all exhibits in detail, but one exhibit that attracted unusual interest, perhaps because of its newness at TTS, was the Archery Club. More than thirty persons, according to Sgt. Mycock, signed up as prospective members. About half of them, he pointed out, were WD's. Sgt. Mycock, who hails from New Westminster, B.C., has formed a number of Archery Clubs in Canada and has made much archery equipment himself. At the exhibit he showed how refeathering of arrows and "bolstering" or stringing should be done.

Much interest was aroused by the work of the young artists at TTS, and especially by their actual demonstrations of sketching and painting. Those taking part in the demonstrations were Cpl. R. J. D. Moddle, who did some sculpturing; AC2 George Burton, who spent his time with landscapes; AC2 Sam Young, who was engaged in sketching; and AC2 W. Faulds, who concentrated on oils.

Most extensive exhibitor was Cpl. R. J. D. Moddle, whose eleven hangings in-

cluded "Portrait of a WD," "Girl in a Red Dress," "Pere Marquette," and others in oils. He also had several plasters, tempera, water colors and pencil sketches. The work of LAW Anne Morgan also aroused much favorable comment—her four water colors emphasizing landscapes. Other exhibitors in the Art Club display included Cpl. J. Hambleton, AC2 G. Rueter, AC1 LaBelle, Pte. R. S. Maebus, AC2 W. J. D. Faulds, AC2 G. W. Burton, Sgt. G. H. Harris, AC2 H. Myers, and Sgt. F. J. Hughes, the last of whom had two line cuts on display.

Most of those interested in the Art Club part of the show also found their way to the Camera Club section, where there was a display of photographs and several showings of Kodachrome slides from photos taken by Flt.-Sgt. S. Gay and LAC F. N. Yeigh. A technical section in the Camera Club display told the interesting story of developing and printing.

In the mechanical section of the Hobby Club, the miniature railway and the model of a C.N.R. Pacific type locomotive, designed from an actual photograph, attracted wide attention. The model locomotive, which operates by electric power, was made by Sgt. B. Keates and represents 750 hours of skill and effort on his part. The tiny wheels and other parts of the locomotive were all cast and turned by him.

Model aircraft made by other members of the Hobby Club also formed an interesting part of the various displays, and especial attention was given to such models as the "Zipper," with its tiny 1/5 h.p. engine constructed by Cpl. A. P. Randall. Cpl. G. D. Smith had a "Cleveland Cloudster," with a 1/6 h.p. motor, while a novelty was provided by the model cabin cruiser by WO1 J. B. Spence.

Singled out by the C.O. for especial praise in his official opening remarks was the work of the Hospital Hobby Club, which was organized for patients in the hospital who find time dragging and who derive much pleasure and profit from the handicrafts at which they work. Convalescent patients from the hospital, with cots at their disposal, were in attendance at the fair, giving demonstra-

tions of their work. They make such articles as models of all types, gloves, slippers, carvings of soap and wood, and tooled leather, with special work in plastics.

Articles of a similar nature were on display in the WD Crafts exhibit. This group meets every Monday night in the WD canteen at 1930 hours under the direction of Willard Trafford, of the YMCA.

Other displays revealed the activities of the Stamp Club, organized last fall to serve the interest of stamp collectors on the station, who meet to exchange news and do trading; the Press Club, whose members interest themselves in the publication of the Aircraftman; and the Music Appreciation Group, who meet weekly to listen to recorded symphonic programs, with commentators to speak on the music and its composer. All in all, the first Hobby Fair at TTS was an eye-opener for those who were not acquainted with the extent of the work done on the station by way of recreation.

Much applause was reserved for members of the Glee Club, who appeared on the stage of the Recreation Hall during the two evenings and sang two groups of songs, the first group including "Nobody Knows the Trouble I've Seen," arranged by Burleigh, and "Morning," by Oley Speaks, and the second group "Sleep, Kentucky Babe," by Foster, and "Oh, What a Beautiful Morning."

At the conclusion of the fair, Flt.-Lt. J. A. Reynolds, president of the Hobby Fair Committee, thanked all those who had taken part in the displays in any way. Other members of the committee were: Secretary, F.O. J. D. Coombs, and members Flt/O D. A. Newson, F/L R. O. Stabler, Sgt. G. Hawke, Sgt. P. Berry, Cpl. J. Hambleton, Cpl. R. Moddle, and Willard Trafford and Arnold Ducklin of the YMCA staff at TTS.

Credits

Thanks are due again this month to Cpl. Fred E. Graham, of the Service Police, who has contributed both the front cover and the cartoon on page six.

Photos in this issue, with the exception of the two pictures of the WD's cottage, are all by Sgt. Percy Berry, president of the Camera Club.



Camera Club Shows Its Wares

Many photographs, both in black and white and color, of scenes in and around St. Thomas, were the feature of the Camera Club display at the Hobby Fair. The technical side of photography was also given a place in the exhibit, however, as this picture shows. Presiding genius of the Camera Club is Sgt. Percy Berry, president, who supervised several popular showings of Kodachromes.



Art Club Members Display Work

How an artist actually "does it" was a popular feature of the Art Club exhibit at the Hobby Fair. This picture shows the crowd watching Cpl. R. J. D. Moddle doing some modelling. Other demonstrations gave the visitors an opportunity to watch sketching and painting being done. Cpl. Moddle had the tables turned on him, however, as Cpl. J. Hambleton had on display an oil entitled "Cpl. Moddle in the Woods."

The Dominion At War

Highlights of Canada's War Effort at Home and On The Fighting Fronts.

Arrangements have now been made by high ranking authorities of the Canadian navy, army and air force for the establishment of joint treatment centres in the special fields of plastic surgery, neurosurgery and orthopedic surgery. These centres will first be opened in Montreal, Toronto, Winnipeg and Vancouver, but medical spokesmen at Ottawa say that they may be extended to other cities as well.

The pooling arrangement at first will apply to fields of surgery in which skilled men are in shortest supply, it was announced, although other fields may be included later. The plan, it is said, is expected to give continuity of treatment for wounded from overseas and to make sure that work begun there is followed up by competent specialists. Cases from overseas will in all likelihood be sent to hospitals nearest their homes.

There are 44 women doctors serving in equal status with male physicians in the Canadian armed forces. There are four women medical officers in the Royal Canadian Navy, headed by Surgeon Lieutenant-Commander Marian I. Templin. In the army there are 25 women physicians, and the remainder are in the air force.

Capt. Dorothy Miller, Vancouver, was the first to receive a commission in the R.C.A.M.C., and in the air force section S.O. Jean Davey, D.M.S., received the first commission. The demand for women medical officers overseas is limited to specialists.

Third largest navy of the United Nations is now the Royal Canadian Navy, which has grown from a mere 13 vessels and 1,800 men to more than 700 vessels and 80,000 personnel. Backbone of the R.C.N., which is essentially a small-ship fleet, is the corvette.

The navy has 450 transports, tankers, and auxiliary craft, 230 frigates, corvettes, minesweepers, minelayers, patrol boats and other armed vessels, 20 destroyers, two cruisers and two aircraft carriers. The cruisers and carriers are new, and are now being put into service.

Formation of a new RCAF district in Canada, the Northwest Air Command, with headquarters in Edmonton, was announced recently by air force headquarters. The new command will take over the control of the Northwest staging route, along which aircraft and men were flown to Alaska and the Aleutians when the Japs were threatening North America two years ago.

Responsibilities of the new command will also include control of airways traffic on the staging route; control of freight and passenger priorities on all Canadian aircraft operating over the route; development, construction and maintenance of all RCAF works and buildings formed or to be formed as part of the route; and the defence of the route itself. First air officer commanding the new command will be the Air Vice-Marshal T. A. Lawrence.

Geographical boundaries of the new command are: east by longitude 110 de-

grees west; south by latitude 52 degrees 30 minutes north; west by the Alberta-British Columbia provincial boundary to latitude 55 degrees 30 minutes north; thence west to the British Columbia-Alaska Highway at Stewart, B. C., on the Portland Canal, and north along the international boundary; north by the Arctic Ocean.

Canada, with her 11,000,000 people, has "guarded the heart and citadel of the Empire during the most perilous months in all its history." This was the tribute paid to the Dominion by Prime Minister Churchill, on the occasion of the visit to Britain of Prime Minister Mackenzie King.

"It is extraordinary the things Canada has done in this war," Mr. Churchill said, when Prime Minister King addressed both Houses of Parliament. "She is the link which binds together the old world and the new."

Heroism and devotion to duty of Royal Canadian Navy personnel have been recognized by many awards and decorations. No less than 49 members of the service have been awarded the Distinguished Service Cross, while 32 have won the British Empire Medal.

Other operational awards won by officers and ratings of the Navy from the beginning of the war are: Order of the British Empire, 20; Member of the Or-

der of the British Empire, 10; Distinguished Service Order, 7; Distinguished Service Medal, 29; Conspicuous Gallantry Medal, 1; George Medal, 6; Polish Cross of Valor, 4; Norwegian War Medal, 2; Greek War Cross, 3rd Class, 1; Czechoslovak Military Cross 1939, 3; Commendations 7; Legion of Merit in degree of Legionnaire (United States) Award, 1; Mentioned in Dispatches, 280.

There are also a number of non-operational awards to members of the naval service since the outbreak of hostilities.

Present strength of the Canadian Army is more than 465,000, including 240,000 in the European zone. There were 70,000 personnel sent overseas during the year ended March 31, 1944, while it is expected that another 48,000 will be sent over during the year to end March 31, 1945. Strength of the army in the Western Hemisphere, including Canada, Newfoundland, Labrador, Alaska, the West Indies and the Caribbean totals 225,000, including more than 12,000 members of the Canadian Women's Army Corps.

News about paper. . . . A total of 2,800 different items made of paper are used by the Navy, Army and Air Force, while 700,000 different manufactured items, from parts of military tanks to pins and needles, are shipped overseas to the fighting fronts in paper. Such important items as blood plasma, emergency rations, dehydrated foods, gas masks, medical kits, ack-ack shells, airplane propellers, bombs, grenades, etc., are shipped in paper containers. Paper is also used in cartons to be thrown overboard in landing operations and in paper parachutes strong enough to convey food and supplies.



The RCAF Serves in India, Too

The pattern on the ground in this picture serves as a mosque for inhabitants of the village visited by five Ontario members of the RCAF "somewhere in India." Markings on the pattern indicate that the tiny straw and bamboo huts are kept clean . . . a mark of pride to the two Indians who are here describing their place of worship. The Canadians, all instructors at an RAF radio school for Indians, are, left to right: Cpl. George Stutt, Dundas; Cpl. Jack Bird, Hamilton; LAC Marcel Sigouin, Embrun; F/O Frank MacDonald, Tillsonburg; and Cpl. Ken Merrett, Sault Ste. Marie.

The Aircraftman

The Monthly Magazine of the
RCAF Technical Training School

Published by permission of the
COMMANDING OFFICER
WING COMMANDER A. G. VINCE,
M.B.E.

EDITORIAL STAFF

Managing Editor
Arnold Ducklin, YMCA

Editor
LAC F. N. Yeigh

President
Sgt. G. P. Hawke

Technical Editor
F/L C. J. Baker

Flt. Sgt. S. Gay.....*True or False?*
Sgt. G. C. Davies.....*Station Chatter*
Sgt. J. Hughes, Cpl. J. Hambleton,
Cpl. Fred E. Graham.....*Art*
LAC Olson.....*Women's Division*
Cpl. "Lefty" Bartlett.....*Sports*
Sgt. G. P. Hawke.....*Around the Circuit*
Cpl. Ken Appleton, AC2 Bob Willis....
.....*Feature Writers*
Camera Club.....*Photography*

The Aircraftman receives Camp Newspaper Service material. Republication of credited matter prohibited without permission of C.N.S. War Department, 205 East 42nd St., N.Y.C.

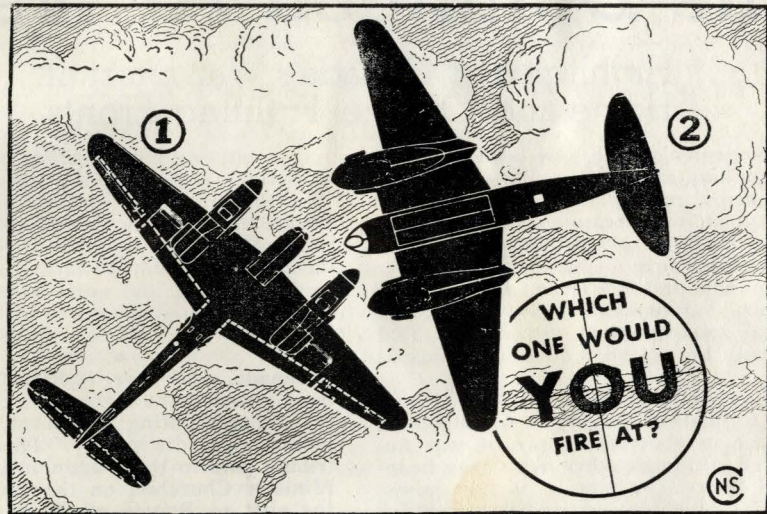
Material appearing in this publication (with the exception of the above) may be copied, provided acknowledgment is made.

RCAF HELPS LICK SUBMARINE MENACE

In the unrelenting hunt for submarines and in the protection of troops and supplies on the Atlantic, the RCAF has achieved a notable record of success.

Since the first U-boat attack by the RCAF in October, 1941, until the end of 1943, there were 63 attacks on enemy submarines. Of these, one-half were made in 1943. With the acquisition of four-engined Liberator long-range bombers the radius of air-cover from Canadian bases has been extended 200 miles.

Late in 1942 the average flying time productive of a U-boat sighting was 840 hours, and a submarine was sighted on an average of once in 140 sorties. In the first half of 1943 the average remained the same, but in the last six months of the year it took an average of 1,700 hours of flying time for each U-boat sighted or an average of 230 sorties per sighting. This increasing success was largely due to improved weapons, more modern aircraft and the greater experience of crews.



Courtesy Dodd, Mead & Co., publishers Aircraft Spotter by Lester Ott.
(Answer on page 7)

"We Are a Terrific Team"

SOLDIERS, sailors and airmen of the Allied expeditionary force: You are about to embark on a great crusade. The eyes of the world are upon you and the hopes and prayers of all liberty-loving peoples go with you."

With these words General Dwight D. Eisenhower began the order of the day which heralded the long-awaited Allied invasion of the continent of Europe.

It will likely be many years before the complete story of the most dramatic military event in history is known, perhaps only when the historian of 1994 has at his hand the official documents and papers. Just now—for reasons of security, mostly—little can be revealed apart from the broad outlines of the action, which tell us each day how the battle is faring. And certainly at the moment of writing, it is far too early even to hazard a guess as to how the immediate campaign will go or even what the ultimate issue will turn out to be. Those are matters which the future alone can determine.

Inevitably, however, there are many thoughts, both sobering and exhilarating, which come to one at such a significant moment in history as this. First of all, of course, there is the spine-tingling feeling that comes from the realization that one has a ring-side seat, so to speak, at what will undoubtedly be a turning-point in history, when the great forces molding human destiny seem to come to a crashing climax in great upheavals of nation or race.

Again, there is the feeling we must all have of pride in the high courage and splendid hearts of the men—and women—who are giving all they possess in order for our visions of a better world to come true. As General Sir Bernard L. Montgomery said on the eve of D-day, "We are a great allied team—a terrific allied team." Yet we must beware of allowing such feeling to degenerate into a boastful pride. It is true that if a Divine Providence has selected us to be the vehicles of a high and noble destiny, it is only because despite our many faults we have shown ourselves able to carry the load. Yet we must always remember that there is a still higher and nobler destiny for us to fulfill for the good of our race as a whole when the time comes for us to be declared the victors . . . our destiny as leaders in peace.

A Word From Our New C.O.

THE AIRCRAFTMAN is happy to pass on to its readers the following message from the new Commanding Officer at TTS, Wing Commander A. G. Vince, M.B.E.:

"It is with pride and pleasure that I look forward to my tour of duty as your Commanding Officer.

"The Technical Training School has a magnificent record, unsurpassed by any other training establishment in the RCAF. Esprit de corps and devotion to the work at hand has made this possible.

"I wish to congratulate you all on your splendid achievements and I am counting on your full support in all our efforts in the future. Let us strive to maintain the proud status of this school.

"The very warm welcome extended to me on my return to TTS is keenly appreciated and I look forward to enjoying and meriting your full confidence."



WING COMMANDER A. G. VINCE, M.B.E.

Chief Instructor Here In '39 Now Returns as "The Boss"

IT WAS the morning of June 5, 1944. The parade was formed up in front of the Administration Building, standing rigidly at attention, waiting for the first appearance of the new Commanding Officer. And, suddenly, there he was, an energetic figure of medium height marching briskly along the walk followed by his adjutant. Then followed the brief handing-over ceremony, his clear and concise remarks of acceptance, and his inspection and greeting of the officers. So the parade was over, and we had our first glimpse of our new CO, Wing Commander A. G. Vince, M.B.E.

For many on that parade, however, it was not their first meeting with Wing Commander Vince. Many of the instructors and officers remembered him well from the earlier years of the war when he served at TTS as an n.c.o and an officer. They already know the story of his career. For them and for the rest of us it is a success story . . . Here it is.

Wing Commander Vince was born and raised in England. At an early age during the last war he enlisted in the Royal Navy and saw three years of submarine service plus service on the ill-fated H.M.S. Courageous before she was converted to a carrier, and also on Admiral Beatty's battle of Jutland flagship, the H.M.S. Lion.

After demobilization he came to Canada about 1920, and finally in 1924 when the Royal Canadian Air Force was founded, he enlisted as one of its first members. He served initially at No. 1 Repair Depot, Ottawa, and then was sent to Camp Borden in August, 1924. In the spring of 1926 he entered ground instructional school there and remained as an instructor in Technical Training until 1936. The No. 1 Technical Training School was then moved to Trenton and he with it, to become Chief Instructor, later returning to No. 2 school at Borden in the same capacity.

In 1939, just prior to the outbreak of war, Wing Commander Vince, then W.O. 1, was attached in a technical capacity to No 1 Training Command. He came to TTS in October of 1939 to open the school as Chief Instructor. He was here until July of 1942, then went to Ottawa, with rank of Squadron Leader, as Staff Officer for Technical Training. His responsibilities covered all technical and engineering branches in the RCAF, and included all civilian schools as well as air force schools throughout Canada. It was from this post that he came to TTS.

Wing Commander Vince recalls vividly the first days at TTS when the buildings were incomplete and classes were started in what is now the Laundry Building, No. 16. The school, he says, now operates largely on the lines of the original plan, and many of the basic ideas now being carried out are exactly as they were visualized in 1940.

It was in recognition of his ability as a technical officer that Wing Commander Vince was honored in the King's list on New Year's Day, 1943, being invested as a member of the Order of the British Empire.

Salvage Crews Face Cold, Heat to Make 'em Fly Again

By LAC Norman Yeigh

FLT.-SGT. J. E. "Jack" Catherall used to think he had the best job in the air force. He still thinks so, too, despite the fact that it made him freeze in winter and burn in summer and even kept him away from a Christmas at home.

Now the NCO in charge of rigging in hangar No. 17, Flt.-Sgt. Catherall was for 14 months in charge of one of the five RCAF salvage crews working out of No. 6 R.D., and with his men — all of them TTS graduates, by the way—covered a large section of Ontario, east as far as Kingston, west as far as Armstrong, and as far north and south as there was any trouble.

During the time that he was engaged in salvage work—from the middle of 1942 to late in 1943—Flt.-Sgt. Catherall and his crew were called to nearly 50 crashes of RCAF planes, and did their job so well that more than half were repaired and were enabled to fly again.

Standard procedure divides all crashes into four categories. There are first the "A" crashes, which are regarded as complete "write-offs." In such cases, parts alone can be salvaged, and are returned to No. 6 R.D., where they are either discarded as unserviceable or are repaired and made available for installation in other aircraft. Next, there are "B" crashes, in which the plane is not so badly damaged that it cannot be repaired for flight. Repairs in these cases are done either by civilian contractors or by the depot itself.

In the case of a "C" crash, the plane is usually taken to the nearest unit where repairs necessary for flight can be made, and in a "D" crash, in which the aircraft has perhaps run out of gas or has been forced down by weather in such a way that little or no damage has been done, the salvage crew services the craft and after any removal of fences or leveling of ground that happens to be necessary, flies the aircraft out to the nearest base.

When a crash is reported, the Chief Engineering Officer of the plane's parent station, along with an inspection crew,

It's a tough job looking after aircraft that have made crash landings. But the smooth, efficient routine of the RCAF, combined with the experience and skill of the salvage men, has made a notable success of getting them back in the air. Flt.-Sgt. J. E. Catherall, a former salvage crew chief, who is now back at TTS, tells the story.

visits the scene, and decides whether or not station personnel can fly it out or whether it is to be left to the repair depot crew to handle. If he decides that expert salvage men are needed, the repair depot is notified, and the salvage crew jumps into action.

In the general routine of a salvage job, the signal announcing a crash is usually telephoned in to the interested Repair Depot from Command for action by the Chief Engineering Officer there. The C.E.O. then relays the message to the salvage division and the crew that is next for duty is warned.

The NCO in charge of the salvage party then orders the necessary transport from the M.T. section and then, depending on the type of aircraft that is to be picked up, prepares his equipment and then visits the accounts section to get a traveling claim to cover the crew's expenses. Usually, too, he procures a certain amount of cash for whatever bills for food and lodging he may have to meet.

On arrival at the scene of the crash, accommodation for the crew is the NCO's first headache. If convenient, it may be the nearest RCAF station, but often the crash has occurred many miles from an RCAF base, and lodging must be found in a farmhouse or hotel. Arrangements must be made, too, for meals. On completion of the job, the NCO telephones his officer for further instructions and if there is another salvage job in the vicinity will proceed to it rather than return to the depot. This makes a trip of five to six weeks a common occurrence, as it is much more economical for a crew to "work" a certain district than to dispatch another crew.

Once an aircraft has been signalled to Repair Depot, it is the responsibility of the Depot to get it out, although the

armed guards are always supplied by the nearest unit. This puts the whole job strictly up to the salvage crew.

"On the road," as the crews term it, is hard on clothes. It sometimes happens that their laundry is left in one town and they have to rush away to another job before they can pick it up. Flt.-Sgt. Catherall once had laundry in five different towns (some of it of necessity non-issue), but managed to collect it the very next trip out. Having to use so much non-issue clothing often gets the crews into trouble with the Service Police, but the officers at the Depot know the problems the crews are up against and no one suffers.

Flt.-Sgt. Catherall usually travelled with ten men in his crew, including aero-engine mechanics, air frame mechanics, and M.T. drivers, and on most jobs they had a truck with a well trailer and a station wagon, along with the necessary salvage equipment.

The toughest job he and his crew ever had, Flt.-Sgt. Catherall recalls, was when an Anson from the Crumlin school crashed in what is called Dorchester Swamp, outside London. This turned out to be an area of bush-like undergrowth, which was actually floating on a sort of underground lake. It was so bad, in fact, that no farmer in the district would put a horse over it. And to add to the difficulties, the aircraft, when finally found, turned out to be an "A" crash, and had to be brought out in pieces. This meant man-handling the whole thing, with the crew working in muck up to their hips. And to top it off, they were obliged to cut a road in two miles through the undergrowth to get at it.

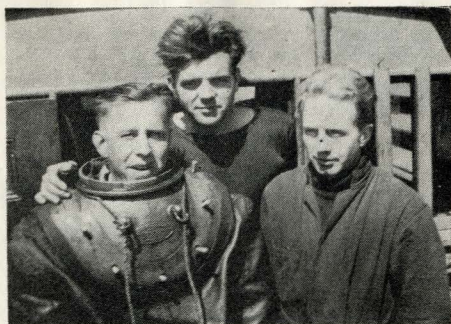
An easy job, but one that took Flt.-Sgt. Catherall and his crew far afield, was one that was reported from Newcastle, Pa. It all started when a Harvard from Dunnville ran into a ground fog shortly after the take-off, and the pilot found himself really in trouble when the radio went on the blink. Trying to get his bearings, he flew over a town which he thought was Hamilton, but which was really Erie, Pa., and he set his course accordingly. It didn't take him long, however, to find out that he was completely lost, and as by this time he had been flying for some hours, the gas problem began to be acute. Finally deciding on a forced landing, the pilot skimmed down to a road, between two sets of high tension lines, and finally brought his craft to rest on top of a slag dump, right under another set of lines.

As if that wasn't trouble enough, the pilot found he had to cope with a suspicious old lady in the farmhouse to which he eventually found his way. An Englishman, he startled her at first with his "foreign" accent, and while he was gratefully drinking a cup of coffee, his hostess was excitedly telling the Pennsylvania state police that a fifth columnist, in the guise of an airman, had ar-



THIS ONE LANDED UPSIDÉ DOWN

This scene illustrates a typical "B" crash which occurred in wintertime near Kingston. The first job was to turn the aircraft over by means of a tripod and then lift it onto a trailer with gin-poles.



HELP FROM THE NAVY

After one tricky under-water salvage job, the Air Force decided to give Flt.-Sgt. Catherall a Navy diving course, and here he is at Halifax, complete with diving suit. The two sailors used to be in the merchant marine, were torpedoed twice, then joined the Navy to get some action.

rived on the scene. Fortunately for the flier, the police soon found that his credentials were satisfactory, then set out to search for the aircraft, which was not far away. In course of time, the salvage crew turned up, decided the Harvard was in an "A" condition, and had the parts shipped home.

Another tough job for Flt.-Sgt. Catherall and his men was when a Fairy Battle, from the RAF station at Picton, crashed in 32 feet of water in Lake Ontario, near its base. The salvage crew, soon on the spot, decided to hire a diver, but for some reason the diver didn't like the look of things and finally said he was going to call it quits and go home. This left the crew in a bit of a spot. But Flt.-Sgt. Catherall, who had had experience in waterfront construction before he joined up, decided he might as well take a crack at the diving business himself. And he pulled it off successfully.

This experience persuaded air force big-wigs that a diver might be a handy person to have on a salvage crew, so they sent Flt.-Sgt. Catherall off to Halifax to take a navy diving course. Needless to say, no more diving jobs ever turned up!

Still another tough job came the way of the salvage crew when an Anson made a forced landing in a field on top of five feet of snow. Because of the snow, the craft sustained no damage, but the crew had to hike in three miles from the nearest highway because an adjacent side-road was blocked. To make things really merry, the temperature was decidedly on the frosty side, sometimes hitting 30 below.

The next day, Flt.-Sgt. Catherall and the crew started out, only to find that they could not even move their trucks out of town, since an overnight blizzard had blocked all roads. Six days was the earliest that any snow-plows could be expected to arrive. So the crew decided to hire a farmer to take them out to the scene of the crash landing each morning in a sleigh. Riding seven-odd miles each day in an open sleigh, with the thermometer flirting with 30 below, was no picnic, as Flt.-Sgt. Catherall soon found out. Their only means of keeping warm was to help heave the sleigh out of snowdrifts when the horses bogged down.

Then came the job of dismantling an Anson on top of five feet of snow, with another five feet on top of it, with the wind blowing up snowdrifts faster than they could be shoveled away. The crew had so many clothes on that, as the Flight recalls, it was easier to roll than walk, and as one of their chores was to

pull out innumerable (or so it seemed) nuts and bolts with both woollen mitts and leather mitts on their hands, their difficulties may be readily imagined.

"If a man can come through an ordeal like that with having once at least burst into tears and sung 'Show Me the Way to Go Home,' and without chewing his finger-nails off to the elbows, I take my hat off to him," Flt.-Sgt. Catherall says. "We did get hold of an oil-drum and make a fire in a dugout in the snow, but it had to be so far away that we would get cold again before we got back to the aircraft—all the gas in plane had leaked out, so we didn't dare have the fire too close."

Their troubles were not even over when the aircraft had been dismantled, the unhappy crew then found. As the snowplows had not even arrived at the town the parts had to be brought out by sleigh. It took a day to haul out the mainplane, another day for the fuselage and equipment and a third day for the engines. Everything was then stored in a vacant garage until the snowplows came.

"To crown it all," Flt.-Sgt. Catherall recalls, "the town was 'bone-dry,' so we didn't even have the means to drown our misery."

Another job that tried the salvage crew's patience came along when a Bolingbroke crashed into Lake Ontario some four miles from shore and eight miles from the nearest dock facilities which happened to be owned by a fish packing plant equipped with two scows. At the time, they were being used by a contractor to lay a pipe line out into the lake.

"After a dicker with the superintendent, we arranged to use the scows at night," Flt.-Sgt. Catherall recalls. "It was midsummer but we still had to have light, so the Repair Depot was contacted and within two hours we had a portable generator and lights. It had to be brought 175 miles by air, so that shows you how fast things can be done."

"The contractor also had a diver," the Flight continued. "I take off my hat to him. He could move around under water faster than most people can walk on land."

This turned out to be a much more pleasant job than the one in which they worked in snowstorms and icy winds. The night work proved to be to the crew's liking, and during the daytime they went swimming and fishing.

The trouble arose when the crew found that the winch aboard the one scow could not lift the aircraft out of the water be-

cause the "A" frame wasn't high enough. So the engines were lifted and cut from the airframe and buoys were tied to the frame before it was let down again. On the third night the crew prepared to bring up the tangled mass of what had been the wings and fuselage. It was lifted as high as possible and the second scow floated in underneath. Then the winch-scow was placed at the rear and the remainder hoisted as high as it could be brought. The only fear now of the salvage crew was that the part hanging between the two scows might "ground" them and sure enough, two miles from the dock, it did. So two timber piles were brought from shore and rested on the ends of the scows and the chain-falls hooked to the mass underneath. By the time it became free, the ends of both scows were awash, but bathing suits were the dress of the day (or night) so the crew did not mind. By 3.30 a.m. dock was reached and another job was finished, except for the loading.

At 9.30 p.m. the next day the loading was finished, and the crew drew a deep sigh of relief. "The fishermen gave us six of the nicest-looking bass I've ever seen," Flt.-Sgt. Catherall wistfully recalls. "Before we pulled out we stopped in at the station and coaxed the station staff to cook the fish and do up some French fries. Just as we started in to eat, in came the night maintenance crews and they sure regarded us with envy as they dug into their good old RCAF stew."

Souvenir hunters were often a headache to the salvage crew. In many cases, thrill-seekers from miles around would turn up to clutter the landscape, and police would have to be called out to keep them at a safe distance. There was always the inevitable small boy, however, to plead for something to take home with him—and it might be anything from a nut or bolt to an entire propeller that he wanted.

On one occasion, the crowd got an unexpected shock. It was just outside of London, when the salvage crew were burning some unserviceable remains. One of the welded tube assemblies, in the fire, must have been pretty airtight, because soon after it got hot it exploded. Flt.-Sgt. Catherall says that he never before saw so many people doing 100 yards in ten seconds all at once—they probably figured it was a bomb.

One job with which the crew was es-

(Continued on page 8)



HERE'S ONE THAT DIDN'T FLY AGAIN

This Anson crashed near Dublin, and was so badly damaged that it had to be carted away in pieces, but believe it or not, the crew of four suffered nothing worse than a shaking-up. That's Flt.-Sgt. Catherall in front of the aircraft. "Just average trouble," he says.

STATION CHATTER

By Sgt. G. C. Davies

IT has often been stated that the lot of a reporter or columnist of any sort is a thankless one. When he does a good job, paints a glowing picture of some person or event and generally slaps praise and glorification in all directions, he hears nary a murmur—least of all one of commendation. But let him attempt to take anyone slightly to task or to point out the generally expressed opinion of any event or happening, and right away he has half a dozen people down his neck, demanding redress for injured self-aggrandizement, and expressing opinions right and left that he is a this-and-that kind of a so-and-so.

After the last few issues of *The Aircraftman* your scribe can appreciate most fully the plight of said reporter or col-

umnist. It seems that everything we mention in Station Chatter these days draws the ire of someone, although all we try to do is report things as we see them, or as they are brought to our attention by others.

Having had about enough of all this, our resolve from now on is to steer the good old middle of the road path and relay local happenings in the best Sunday school manner.

There is one thing, however, that we should like to set a few misguided individuals straight on. It appears that the cartoon on the selling of Victory Bonds in the May *Aircraftman* aroused considerable indignation in local amazonia. So much so, in fact, that a special meeting was called to which our propinquitous Eves did rally in self-righteous wrath to decry and vilify us as the perpetrator of the dastardly deed.

To those whom all the foregoing may concern, we should like to state that the cartoon was no more our doing than that of the rest of the editorial staff of the magazine. The idea for such cartoon was

evolved in editorial caucus from a number of different suggestions and was turned over to the cartoonist for execution. And as far as that goes, all concerned thought he did a fine job. Amen.

"Summer" Cum Laude

The midsummer heat which descended upon us here during the last week of May brought not only the surrounding countryside into full bloom, but saw the local airmen and airwomen blossom forth in the magnificent beauty of summer dress.

That is more or less true of the WD's summer uniform, but for the poor airman summer dress means weekly cleaning bills, looking relatively smart for about half an hour, then like a well-used dishrag for the rest of the week.

However, it appeared that the warm sun had brought out as well the "June entry" of lovelies to eye-fill the beach. This naturally attracted the lads from the station in great numbers, and they could be observed practically at any time making the best of a very good situation.

Several of our NCO's seem to have taken summer by the forelock already, too, and various little anecdotes trickle through the underground about people falling off porches, having adventures with skunks, trouble with the plumbing, and even apprehensions by the militant Port Stanley constabulary — both of them.

All in all, it looks like a very interesting summer season ahead.

Drill Refresher (???)

The end of May saw another of the periodic refresher courses in drill for the station NCO's get under way. This one started with really elementary drill and promises to go right through C.A.P. 90 from cover to cover.

While few of the technical NCO's look forward to this daily drill session with genuine enjoyment, surprisingly enough the beefs and groans are few. The drill classes as a whole seem to show definite interest in the drill, and the expressed opinions indicate that the NCO's appreciate the high calibre straightforward instruction they have been getting.

As one NCO put it, "... Drill is still drill ... the stuff that dulls the mind and makes the feet sore ... but this session of it so far is being made much easier to take than former courses." To which we can only add, "Hear, Hear."

This and That

Speaking of the drill instruction being given the technical NCO's by the P.T. and D. staff brings to mind a remark that one of the latter made to us just at the end of the month. It seems that there were no less than ten P.T. and D. instructors in the hospital or undergoing some treatment or other at that time. Said the NCO, "... It must be that the new drill they're giving is too much for them." Possibly a case of being "hoist with one's own petard."

It would appear that very soon TTS will have to put out a regular university syllabus advertising the different courses available here. Really, the place is becoming as cosmopolitan as any campus with the number and variety of trades one hears mentioned. The four old standard trades have been abetted by such newcomers as advanced metal working, parachute rigging, A.I.D., welding, carpentry and flight engineer (these latter

(Continued on page 9)



THE BOGEYMAN WILL GET YOU IF YOU DON'T WATCH OUT!

C.S. PROPS HELPED SAVE BRITAIN

(Reproduced by kind permission of the Canadian Air Cadet.)

AS LONG ago as 1936 de Havilland had both Spitfire and Hurricane pencilled into their program for variable-pitch propellers but in those days the accent was on lightness where fighters were concerned and as both types could leave the ground fairly well with fixed-pitch two-blade wooden propellers they were not instructed to provide v.p. propellers until much later—in fact not until 1938, when pilots were beginning to say that they needed variable pitch for safety in night take-offs. The RAF expansion was then going ahead urgently and two-pitch propellers were specified for single-engined fighters because quantity deliveries of these could be given more quickly than of the constant-speed type. By the time Paris fell, de Havilland had delivered about 1,250 two-pitch propellers for Hurricane; 1,000 for Spitfire and 325 for Defiant.

At the time of the Battle of France, propeller engineers and test pilots used to hear at the fighter stations that the ME109's were a bit higher in ceiling than our fighters, though their manoeuvrability high up was not as good as ours, and that they had an advantage in accelerating and power diving — our two-pitch fighters had to throttle back in the dive to avoid over-revving. It was also clear that constant-speed control would give us a much improved climb for intercepting. Changing from fine to coarse pitch with the two-pitch control, as set for the Spitfire's rated altitude, was rather like changing from bottom to top gear in a small four-speed motorcar. In many talks with hard-worked pilots during Dunkirk week and thereabouts, all agreed that constant speeding would be a considerable help, especially as it did not mean new propellers, but only governor units, piping, etc.

On Sunday, June 9th, when the Germans were pouring across the Marne, de Havilland's had a phone call from an engineer officer asking whether they could convert one Spitfire as a sample.

These were ready in about four days, and half a dozen picked D.H. propeller installation engineers effected the conversion at an air field during one night, while the Huns were rejoicing in Paris and Goering was re-grouping for the attack on England.

A report dated June 20th, from the D.H. Test Pilot, Mr. E. Lane-Burslem, stated that he had flown the converted Spit and so had Squadron Leader Cooke, who commanded 65 Squadron, also a number of his pilots. They estimated that there was more than 7,000 feet of increase in ceiling and the manoeuvrability at height was much improved, not to mention the obvious advantages of reduced take-off run and increased rate of climb—in brief the ability to use maximum engine efficiency at any altitude and in all flying conditions.

On Saturday, June 22nd, de Havillands were verbally instructed to convert in the field all Spitfires, Hurricanes and Defiants, with priority over other contracts, and the Spitfires had to be done first. S/Ldr. Cooke, in his constant-speed Spitfire, led his two-pitch squadron into battle and the practical advantage was

immediately apparent. Unfortunately, on his second sortie he was killed.

Day and night air raids on England began about Monday, June 24th. The next day 13 D.H. engineers set forth in cars for twelve Spitfire stations. Each was provided with about six conversion sets to be going on with.

At each station the D.H. man on arrival asked for a picked crew of NCO's and fitters and converted the first aircraft himself, instructing them at the same time. The second aircraft was then converted by the RAF crew with his help, and the third with his supervision only, after which, if all was going well, he would proceed to the next station. Youthful engineers found themselves directing senior flight sergeants and quite big squads of fitters. Mr. Lane-Burslem flight-tested the first machine and instructed the RAF pilots in the constant-speed operation, and then flew on to the next station.

The working times of the D.H. engineers during the ensuing weeks averaged about 105 to 110 hours (15 to 16 hours a day), with instances of 130 and up to 150 hours (19 to 21 hours out of the 24). At some squadrons as many as 4 and 5 Spits were converted and test flown in a day.

There was much improvisation at the stations, home-made arbors were contrived for dismantling the propellers, and off-set spanners were made to get at nuts without having to remove the Merlin Glycol header tanks.

Some of the squadrons which had borne the brunt at Dunkirk and were resting in South Wales and elsewhere, flew their Spitfires across England in one's and two's to be converted, and some aircraft were flown for conversion to de Havilland's own doorstep.

The worst of the rush was over six days before the Luftwaffe's mass attacks began, and a chance diary entry records that the company was already busy on another urgent job, of fitting propellers to 24 Hurricanes to be sent at once to the Middle East. Another diary entry of that month which serves as a reminder of gloomy expectations, records that de Havillands were doing 1,500 sets of bomb racks for Tiger Moths!

Those July raids had fortunately been scarcely more than skirmishes. If only the German High Command had realized! The mass attacks on Channel ports and shipping which began the intended final assault upon Britain did not start until Thursday, August 8th—but all our Spitfires had constant-speed by then. By August 16th, 1,051 Spitfires and Hurricanes had been converted—an average of 20.2 aircraft per day over 52 days. In the 8 days—August 8th to 15th, the German losses averaged 81 aircraft daily — four times our own losses. One of the highest officers of Fighter Command remarked to a D.H. engineer that but for the conversion job the figures might have been reversed.

TWIN TRIANGLE DANCES

Airmen are reminded that the Twin Triangle dances, held at the St. Thomas YWCA, which were discontinued at the end of May, have been resumed. Invitations are available for only 100 men each Tuesday, however, so get your tickets early. They are available on the station.

Who Remembers This?

Everyone of late has been singing the praises of Wing Commander Vince, our new C.O., and telling stories of his good old days when he served on this station in a more lowly capacity. Few, however, will remember that once upon a time he was a contributor to *The Aircraftman*, yet, in our issue of August, 1940, we find the following verses, written by him when he was a flying officer.

"ALIBIS"

When the trade test board was over, in the barrack room they stayed,
Reciting their excuses for the dismal show they'd made.
They could all explain their failures in a self-consoling style
Which made even "Sarge" who taught them, turn away to hide a smile;
And he said to his companion, "I will bet you when they die,
For the sins they have committed, they will have an alibi.

"I've been teaching many seasons, served the students night and day,
And I've yet to hear an Airman say he'd thrown his chance away.
I have never met a trainee who accepted any blame—
He could always prove his prudence, never hang his head in shame.
"Dud instructor" is the reason, or "Been sick since last July,"
For the most imperfect Airman has a perfect alibi.

"When this game of life is over and St. Peter calls them all,
I should like to stand and listen, as their efforts they recall.
I should like to hear them telling as he thumbs the record through,
Why the trade test forms show nothing of the work they meant to do.
When they're summons'd in for judgment, just too late to change a thing,
I'll bet St. Peter chuckles at the alibis they bring."

Which One Would You Fire At?

Fire at No. 1! It's the German Me 210—the counterpart of the Mosquito—a twin-engine fighter bomber. The in-line engines protrude past the short nose. Wings have equal taper on both edges and rounded tips. Gun blisters are visible on each side of the fuselage aft of the wing. The equally straight-tapered tail plane has rounded tips. The single fin and rudder has a broad base, tapered mostly on the leading edge to a broad rounded apex.

Not at No. 2! It's the famous British DeHavilland Mosquito, one of the speediest fighter-bombers in the world. The underslung in-line engines have deep nacelles which break the trailing edge of the wing. The wing has a straight leading edge, broken between the fuselage and engine nacelles by the radiators. It also has sharp taper to the trailing edge. The tail plane has pronounced curve on the leading edge and the tall "shark's fin" single fin and rudder is outstanding.

SYMPHONY MOVES OUTSIDE

With the coming of summer weather, the recorded symphonic program has moved outside and may be heard Monday evenings, south of the Rec Hall,

WIVES OF AIRMEN AT ST. THOMAS HAVE FUN IN CONTACT CLUB WORK

COMPARATIVELY little known among the many organizations at TTS, the Contact Club, whose members are the wives of airmen stationed here, is one of the most active and enthusiastic of them all.

A difficult problem — in fact, many problems—face the wife of any serviceman who goes with her husband from station to station or camp to camp. Suitable living quarters are often hard to find, and she is frequently faced with the puzzle of what to do with her spare time when her husband is away at his duties. In a small town, or a city far from home, there is often little to do, while sometimes friends are hard to find.

Wives of the airmen at TTS, however, have many of these problems solved for them by means of the Contact Club, which was organized early in 1941 by the YWCA and now has more than 60 members. The members not only engage in club activities, but do Red Cross work as well, and many of them work at various jobs with firms in St. Thomas.

Whatever else they do, airmen's wives certainly get around. Mrs. James O. Kerr, wife of F.O. Kerr, who has been at TTS since November as Educational Officer for the flight engineers, has traveled approximately 10,000 miles, joining her husband on postings, and thereby probably qualifies as the club's most traveled member.

Starting off from Sydney, N.S., she went with her husband to Lachine, from there to Rivers, Man., then back to Sydney. Then there was a jaunt to Mont Joli, Que., and thence to London, Ont. From there she went home to Sydney again only to join her husband once more at St. Thomas. And somewhere along the line there was a trip to Brandon thrown in for good measure.

The club member farthest away from home is Mrs. R. S. Adamson, whose husband is an AEM trainee. Mrs. Adamson hails from Ocean Falls, B.C., a mere matter of 3,000 miles away. However, she doesn't mind—she says that besides being with her husband the trip gave her a chance to see Niagara Falls.

Romances which have started at TTS have also brought new members to the Contact Club. Mrs. R. Yates, whose husband is one of the flight engineers' instructors, was formerly a corporal at TTS, being employed on switchboard work. She hails from Kisbey, Sask., and met her husband, appropriately enough, in the Corporals' Mess. Softball and bowling are her hobbies, at both of which she has distinguished herself in club activities.

In many unobtrusive ways, the members of the Contact Club have been outstanding in the kindly services they have performed, both for themselves and for others. Club members, for instance, came to the rescue of an airman's wife, not a member of the club, who became very ill. Her husband was overseas, leaving her with a two-year-old child and three-months-old baby. After appealing to several other organizations, someone who was interested suggested the Contact Club, which sent one girl each day to do the housework and take care of the children until the woman recovered.

Judging by a list of their group activi-

ties, members of the Contact Club are certainly a happy and sociable lot. Every Monday they indulge in bowling, and when there are no pin-boys available, they just set the pins up themselves and go right on. Tuesday afternoon is the time for the regular club meeting, and is held in the war services' room at the YWCA. Members bring their own tea and sugar and lunch is served. Most of the time at the meetings is taken up by Red Cross knitting. Red Cross activities at the club started in February, 1942, and since that time members have knitted 207 articles. They have also sewed 1,044 articles since May of 1943. Every Thursday morning a member goes out in the truck with the secretary of the Red Cross to collect magazines.

Club members, by the way, wear club pins of triangle shape with "Service Men's Wives Club" printed on them.

The keen enjoyment of P.T., so noticeable in the average airman (?) seems also to have bitten the Contact Club members, for during the winter at least they have regular P.T. classes every Wednesday in the YWCA gym. Thursday they have swimming sessions in the pool at Alma College, while on Fridays they have sewing bees in the Red Cross rooms on St. George Street. During the summer, softball and swimming at various nearby beaches are added to the club activities, while other indoor activities are dropped till the fall.

President of the Contact Club since November, 1943, has been Mrs. L. Kirkby, whose husband, before their marriage, was an IAC at Fingal. An ardent softball and basketball player as well as track star, she holds the St. John's Ambulance Certificate and shares almost every club activity.

Married to a TTS hydraulics instructor, Mrs. Lawrence L. Davis, of Vancouver, B.C., is the vice-president of the club. She was formerly a stenographer for the B. C. Workmen's Compensation Board and was active in CGIT work.

Another executive who is a long way from home is Mrs. John Neil, from New Waterford, Cape Breton, who is the secretary-treasurer of the club. She is not so lucky as the other wives, inasmuch as her husband has left TTS and is now stationed at Tar Bay, Nfld. A very active member of the club, Mrs. Neil likes St. Thomas so much she wants to make her home here for good. She is another airman's wife, however, who has found the Contact Club a welcome place to make new friends and develop new interests.

SALVAGE CREW

(Continued from page 5)

pecially careful was the one that involved two Kittyhawks which had crashed near Capreol. Both had their guns fully loaded with .50 calibre ammunition, and the crew took things easy on this one because they had no armorer with them, and the Kittyhawk was a stranger to them as far as dismantling was concerned. They spent days just taking out nuts and bolts and screws, and finally left the guns in the wings. Oddly enough, both aircraft came down at the

same time, landing near each other on the Capreol road, out of gas. They were planes which were being ferried out West.

Lugging their equipment around was always quite a chore for the salvage crew. Usually they would take with them sheer legs, tripods, gin poles and chain blocks, as well as ropes and chains, while on unusually difficult jobs they would take a caterpillar tractor with a heavy duty truck, with a wheeled "dolly" for wheeling out the aircraft when the undercarriage happened to be damaged.

Most aircraft, the crew found, could have their motors removed while flat on the ground. On two-engined craft that procedure would reduce the weight considerably, and the next job would be to remove the outer main planes. Then gin poles or sheer legs would be erected over the aircraft and the whole aircraft lifted sufficiently high for a trailer to be backed underneath and a carrier stand to be placed in position.

If Flt.-Sgt. Catherall started out on his job with the hope that he would have a chance to do some traveling, he certainly had his wish fulfilled, for in the 14 months that he was engaged in salvage work, he covered more than 17,000 miles and visited every station in No. 1 Training Command. The especial appeal of the work, the Flight says, lay in the fact that every job was different and presented its own problems.

During the 14 months that he was on salvage work, Flt.-Sgt. Catherall also remembers the longest time that he was ever on his station was four days and sometimes he would be gone as long as a month. Last Christmas, for instance, he recalls sorrowfully, he arrived back from a job at 2.30 p.m. the day before Christmas and his well-laid plans for a Christmas celebration with his family were ruined when another rush assignment turned up and he was back in Toronto at 7.00 p.m. on his way.

Flt.-Sgt. Catherall, now 35, was born in West Hartlepool, England, and came to Canada in 1928, shortly after which he went into the construction business. He joined the RCAF in November, 1939, just after the war broke out, and the first stage in his air force career was as an airframe trainee at St. Thomas. On graduation he remained at TTS as an instructor until he was posted to W.E.T.P. schools for liaison work — in the early days of the war these schools were still under civilian authority. He returned to St. Thomas as an instructor in rigging in 1942 and was here only six weeks until he was transferred to No. 6 Repair Depot, Trenton, as the NCO in charge of a salvage crew. And he is now back at TTS for a third time.

Flt.-Sgt. Catherall is married, and has two children, a 13-year-old daughter, Irene, and a ten-months-old son, Billy. If you want to please him mightily, just ask him, "How is Superman getting on?" Because that's the Flight's favorite nickname for Billy.

British Dialogue

Heard in an English army hospital:
 "Ullo, Bill!"
 "Ullo, Alf!"
 "Come in to die?"
 "Naw, yesterdie."

— The Canadian Airman

Good FE's Help Crew Morale

(Second of a series of articles by
Sqd. Ldr. G. Adams, RAF)

After your technical training at St. Thomas is over, you have a further spell of technical training lasting seven weeks called the "Type Training Phase." Here you are first allotted to a type of aircraft according, first, to your choice; second, to the needs of the service at the time; and third—if choice and service needs do not give the exact number required for each type—the luck of the draw. Once allotted to a type, your studies will be solely on that aeroplane and its equipment, for you must know it thoroughly. If you cannot carry out any operation that may be required of you in total darkness, then you do not know enough about it. During a raid over enemy territory you cannot afford to walk about with a torch flashing. As it has been aptly put, "There is no future in that."

On arrival at the heavy conversion unit you will be crewed up. The rest of the crew will already have done some training together on the operational training unit and again, as far as possible, it is left to personal choice how the crews and engineers join up. You may, for instance, fall in with a crew composed largely of fellows from your home town, and feel you could get along well with them. If the inspection is mutually satisfactory, another crew is completed. Once crewed up you will remain with, and do all your flying with, that crew throughout your operational tour.

The object of this encouragement of friendly crewing up is as far as possible to make happy crews, because a happy crew is usually an efficient one. In other words, to encourage esprit-de-corps amongst the crew, to make each man believe he is a member of the best crew, is important—even more so to encourage him to do all in his power to make it so. Successful crews have this esprit-de-corps in a marked degree.

One day at St. Athan a flight engineer arrived on a visit who had graduated some months previously. He told us he had so far completed twenty uneventful trips without any troubles of any kind, but that his squadron had re-equipped with a later Mark of aircraft and so he had thought it a good idea to spend a day of his leave in what he called "genning up" on the new aircraft, on which he knew we were instructing at St. Athan.

I asked him if they had ever encountered a night fighter. He replied, "No, but if we did we would be all right, as we have the best rear gunner in the squadron." Some time later, in telling about the first of the shuttle raids between England and North Africa, he proudly stated that his aircraft was the first to land in Africa, having hit the landing ground absolutely accurately after the long flight from N. Italy to Africa.

I ventured a remark that their navigator must be pretty good. "Oh, yes," he said, "we had a bit of bother with him at first, but he's about the best in the squadron now." And when some time later in the conversation he assured me he would fly anywhere with his "Skipper" as he was the best bloke in the squadron, it was of course obvious that in this crew at any rate morale and esprit-de-corps were very high. And when you come to con-

sider that the engineer was willing to spend a day of his leave to get a little extra information, it is not difficult to see why. This spirit no doubt was partly responsible for the twenty uneventful and successful operations.

Your H.C.U. training will last about six weeks, but varies slightly according to the weather, and in that time you will do some sixty hours' flying. At first a trained flight engineer, usually one who has finished a tour of operations, will be with you; and only when he is satisfied will you be allowed full charge of your aeroplane. Working with your crew, you will then go through a series of flying exercises of increasing difficulty until at the end of your training you may be given a leaflet raid or newspaper run over occupied territory. You are then ready to be posted to your squadron.

Station Chatter

Continued from Page 6

three have actually been with us some time), and the newest under the local sun . . . radiator and oil cooler advanced training. It's getting to be a case of "Pardon me, old man, what are you majoring in this semester?"

The NCO's of Number Four Technical Section made a nice gesture the other day, which we think is worthy of mention. They had a balance of some sixteen dollars on hand from a fund that had been raised for a section dance some time back. When it was found necessary to dispose of the money in some way or other recently, they called a meeting and unanimously decided to donate the sum to the Kinsmen's Milk for Britain Fund.

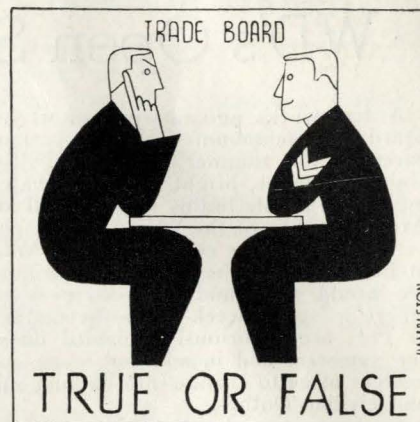
The club's appreciation of the donation was expressed in a letter to the NCO's of the section, which read in part: "This donation was greatly appreciated, especially since we are a newly formed club and this was the first donation to our club for this worthy purpose."

Handing Over Parade

On the morning of June 5, 1944, most of us had the opportunity of witnessing the handing over of the station to the new Commanding Officer, Wing Commander A. G. Vince, M.B.E. . . . (had to . . . parade y'know). . . You shall probably find a more definite account of the whole ceremony and full details of the career of Wing Commander Vince elsewhere in the magazine. Sufficient, then, is it for us to comment on the nature of the parade itself.

Most of us probably expected a long and drawn out three-hour or more affair with plenty of confusion, panic and fainting right and left. Actually, the absence of any of this on the comparatively brief two-hour parade was a revelation. General opinion afterward hailed it as a very fine parade, smartly handled, and going off without a hitch. The brief and to the point inspection met everyone's favor, and relieved the tedium which always accompanies a long parade.

Summing it all up, we feel constrained to remark that, launched so smoothly and efficiently, Wing Commander Vince's career as C.O. of this station should set a new high in success of commands.



By Flt. Sgt. S. Gay

- 1 • The R.R. Merlin has two scavenge pumps.
- 2 • The circular mil is a measure of length.
- 3 • A "volt" is the unit of electrical pressure.
- 4 • Like magnetic poles attract one another.
- 5 • The main relief valve governs the greatest pressure built up in a hydraulic system.
- 6 • A voltmeter is connected in series.
- 7 • Bias tabs are for patching small holes in fabric.
- 8 • A reversing propeller is used on some aircraft.
- 9 • Brine is sometimes used for quenching when heat treating ferrous metals.
- 10 • An aircraft must be in rigging position when checking the stagger.

Answers on page 10.



Busy Beauty

Our pin-up girl for June is one that really qualifies. She's luscious Elaine Shepard, movie star, and here she is posing for the first of 500 pin-ups, orders for which accumulated from the U.S. Army, Navy and Marines while she was on a bond-selling tour a while ago.

WD's Open Summer Cottage

A few weeks ago not one of us had heard of Beachmount—now it is part and parcel of our summer life and activities. Unknown to us, bright ideas were hatching in the fertile brains of S/O Hill and Arnold Ducklin of the YMCA—ideas concerning a summer cottage for the WD's at Port Stanley. They realized how much we would need and appreciate somewhere to spend week-ends—the cottages at Port are notoriously crowded during the summer—and in addition some convenient place to change into bathing suits and civilian clothes.

So these two devoted hours of their time and much energy to combing the real estate offices and investigating the living accommodations at the popular summer resort. Not just any cottage would do—it must be large enough to accommodate large numbers of girls, not too close to the noisy section surrounding the main beach, and yet conveniently close to the bathing beach. Cottages were seen and rejected and then at the end of a long day and just as they were giving up hope, came Beachmount.

Situated up on the airy crest of Hillcrest and overlooking the lake, it seemed the ideal spot. It has eight big rooms, including kitchen complete with dishes and cooking utensils, where the girls can practice their culinary arts. A verandah runs around three sides of the cottage, hung with rambler roses, ivy and potted plants. Wide French windows open out from every room, assuring the sleeper all the fresh air she could desire.

To Mr. Ducklin and Mrs. Hill it seemed just what they were looking for, so back they came to ask the opinion of the girls. At a mass meeting in the WD canteen the decision was an overwhelming affirmative and with the approval of the Commanding Officer requested and granted, the light was green to go ahead. A "cottage committee" was elected, composed of Sgt. Marjorie Robinson, Cpl. Betty Jary and LAW Nancy Olsen, to handle the collection of membership fees



Here's the Committee

The WD's "cottage committee," chosen to undertake the general organization of the cottage project, are pictured here. They are Sgt. Marjorie Robinson, Cpl. Betty Jary and LAW Nancy Olsen.

and the general organization of the project.

At this juncture a calamity befell — Mrs. Hill was posted to Guelph and with Miss Fenton still on course the committee was without an official spokesman. With Miss Fenton's return last week, the wheels began to turn again. The cottage was unofficially open for use the week-end of June 9th, and the real opening was a bang-up house-warming, Tuesday, June 13th, to which all and sundry were invited, not only those who signed on as members. The entertainment committee with, a sizable sum burning a hole in their pockets, generously offered to foot the bill for all the lunch and incidentals. With such a start, how could it be other than a huge success?

The plan has been to have the cottage supervised by a YWCA hostess — not someone to act as mentor and censor of the girls' conduct or to restrict their ac-

(Continued in next column)



Beachmount, Here We Come!

Much scurrying around had to be done before the ideal spot for a WD cottage was found by S/O Hill and Arnold Ducklin of the YMCA, but it eventually turned up in "Beachmount," at Hillcrest, overlooking the lake. It boasts eight big rooms, including kitchen (with dishes), with a verandah around three sides.

What's Doing with the WDs

By LAW Olson

THE biggest piece of news since we last went to press was, without doubt, the overseas postings which came to a number of our girls. First two to go were AW's Clara Krell and Violet McGurk—then two weeks later these lucky gals also departed—Cpl. Olive Griffiths who had only been here long enough to nicely know her way around. Aileen Weese, Dorothy Greggains, and the irrepressible Sentener, better known to one and all as "Boston". All of the old-timers around the station were green with envy at the thought of such comparative newcomers getting such a break, but we all wished them luck and with the recent happenings over there we're sure they will be seeing things and going places. Off to No. 1 Convalescent Hospital to cook goodies for the boys at Beaumart's went LAW's Alice Nelson, Eleanor Rice and Winnie Schram. Flight Officer Fenton and Corporal Helen Finlayson returned from Trenton and Corporals Sarah Janes and Mary McDonald departed thence. And another landmark has gone from TTS since Cpl. "Lou" Silcox has gone to Winnipeg. Lou was really everyone's friend and many an airman who passed through TTS will remember her as the kind-hearted soul of the wing equipment rooms.

Congratulations to Sgt. Mary Crew now that she's wearing the crown above the three stripes, and also to Kay Alvin on getting her third.

Wedding bells are really ringing in the Medical Section this month. On the 28th LAW Peggy Meek will be married to F/S Gordon Johnson of Jarvis. Their romance began when Peg was stationed there before coming to TTS last fall. We understand they are spending their two weeks at Limberlost Cottage, Huntsville.

We would like to take this, our only opportunity of voicing our sincere regret at Section Officer Hill's posting to Guelph. Most of us had no chance to know her until she became our officer in Miss Fenton's absence, and in that brief time she really took a lively interest in all our doings. She it was who spent hours tramping around Port Stanley with Mr. Ducklin of the YMCA searching for a cottage for our summer activities, and we

(Continued on page 13)

tivities in any way, but to keep the cottage open and functioning as a home at all times—so that it will be a homey spot to come to and not just an empty house. Until the hostess arrives, however, we shall just have to struggle on by ourselves like chicks without a mother hen.

This, then, is our summer home at Port Stanley — some Sunday afternoon drop in and see us at play—and perhaps we will condescend to let you mow our lawn for us—we've got a grand lawnmower!

Answers to True or False

True—1, 3, 5, 8, 9, 10.
False—2, 4, 6, 7.

THE TTS LIBRARY

HOUSED in brand new quarters on the north side of the Blue Room, the Station Library at TTS provides a most inviting spot for anyone who is looking for a quiet way to relax. You can either take books out or just browse around—it's up to you.

Flying Officer J. D. Coombs, educational officer at TTS, reports that there are now more than six thousand books on the library shelves, including fiction, biography, travel, history and other technical and general subjects. The heaviest demand, it has been found, is for reading for relaxation, such as general fiction and mystery and detective stories, but there is a big demand for technical books, too, as well as for books of an educational nature. The latter are usually read by men who are following a regular course of reading with post-war education in mind.

Special features at the library include a small reference section, and a Women's Division section, the latter having been brought over recently from the WD barracks for incorporation in the general library. There is also a section devoted to the large number of books received as members of the Elgin Library Association. This latter is a more or less "fluid" collection as about fifty books are returned to the common pool of the Association every two months in exchange for fifty new books.

The librarian was formerly Tom J. Marks, of Port Stanley, a familiar figure around the "Rec" Hall even to non-library users. Mr. Marks assumed the position late last year and has now left to return to business. Just at present the librarian is Alex Lethbridge, of St. Thomas, who has been at TTS for more than two years as a messman. Early next month it is expected that Sgt. Sheppard, of the WD's, who has taken a library course, will be back from sick leave to assume the post, when Mr. Lethbridge will continue as co-worker.

For those who might want to know the hours, the library is open every day except Sunday from 1300 to 2100 hours, and books can be taken out for seven days at a time, with the privilege of renewal. Technical books have a three-day limit, but can be renewed too.

A number of gifts have aided in making the library as comprehensive as it is, among them being included a collection of books from the National IODE, which has made camp and station libraries one of its special war efforts. There are also many books from the Canadian Legion, which is ready to assist in any form of educational activity on the station and which has provided many text books. The library also has booklets on current affairs from the British Information Services in New York, as well as many books and magazine subscriptions from individual donors and organizations.

The library is indebted to Mrs. Owen S. Dunn, the president, and members of the TTS Women's Auxiliary for their active interest, the attractive curtains at the windows and doorways being their handiwork.

President of the station library committee is Hon. Flt. Lt. A. Nimmo, senior Protestant chaplain, while the secretary is F.O. J. D. Coombs and the treasurer Flt. Lt. J. R. Ruel. Board members are

Hon. Flt. Lt. J. J. McGarry, senior Roman Catholic chaplain, Cpl. T. J. E. Nelson, of the WD's, Col. D. E. Gerrard, Sgt. E. F. Astbury and Arnold Ducklin, YMCA.

Here are a few of the most popular books in the library just now: "Retreat to Victory," by Alan Michie; "Battle for Asia," by Edgar Snow; "They Were Expendable," by W. L. White; "The Men Around Churchill," by Rene Kraus; "General Douglas MacArthur," by Francis Trevelyan Miller; "Facts in the Case," by Gilbert Jackson.

A bachelor is a man who makes mistakes without marrying them.
—Thumbs Up

• • •

HONOUR GRADS

Following are the honor graduates for the month of May:

AFM: AC2's R. C. Oldershaw, Brantford; J. W. Eddison, Victoria, B.C.; J. T. Whittam, Toronto; Flt. Sgt. R. W. Winnett, Toronto; AC2 D. Virtue, Swift Current, Sask.; AC2 W. G. Rooke, New Westminster, B.C.

AEM: AC2's P. Memerosky, Weirdale, Sask.; L. A. Young, Shawville, Que.; G. E. C. Irvine, Niagara Falls; D. H. Marshall, Toronto; G. S. Fitzgerald, Stratford, Ont.

FE: Sgt. W. R. Strand, Millet, Alta.; LAC R. S. Robinson, New Westminster, B.C.; Cpl. R. Loveday, Calgary, Alta.; LAC R. W. Gervan, Vancouver, B.C.; Sgt. B. Horsfall, Winnipeg, Man.

Parachute Riggers: AC2 J. S. R. Gollinger, Ottawa.

IM: AC2 W. E. Harvey, Port Hope, Ont.; AC2 K. B. Doyle, Geraldton, Ont.; AC2 Pfeffer, Kitchener, Ont.

Electricians: AC2 C. A. Greenlaw, Asbestos, Que.; AC2 S. Sobil, Taunton, Ont.

Carpenters: AC2 F. I. Blagrave, Montreal, Que.


QUIZ

OF THE MONTH

FOR AN EXTRA THIRTY-SIX IDENTIFY THESE PIX


THE RULES

- OPEN TO EVERYBODY.
- ANY AMOUNT OF RESEARCH MAY BE DONE TO FIND OUT THE NAME OF THE AIRCRAFT.
- DEADLINE OF EACH MONTH.
- WINNER WILL BE ANNOUNCED IN D.R.O.'s.
- IN CASE OF DRAWS, PERSONS CONCERNED WILL BE GIVEN A SPOTTING TEST IN THE A/R SECTION TO DECIDE WINNER.



WHAT TO DO

- GRAB AN ENTRY FORM
- FILL IN THE NAMES OF THE A/C
- SLIP YOUR ENTRY FORM INTO THE BOX PROVIDED



...they all look the same to me

Aircraft Rec. Contest Starts Soon

A novel contest will be under way soon for those folk at TTS who pride themselves in their ability to pick 'em out as they fly past in the sky—it's an aircraft recognition competition being run by Sgts. Tilt and Robinson, the WD aircraft rec instructors. First prize is an extra "36." Watch for these posters when they go up at Nos. 1 and 2 Wing entrances and also in the Tap Room and other much-frequented spots. All you have to do is to identify as many of the aircraft as you can, and then put your completed entry form, which you will find near the posters, into the box provided. The answers will be corrected from the Aircraft Recognition Inter-Service Journal. If there are any ties, the persons concerned will be called into the Aircraft Rec section for a stiff "flash" spotting test. This is going to be a monthly affair, so brush up on your aircraft and get set. Anybody can take a crack at it, whether he is an FE or not.

MAY SPORTS TITLE GOES TO No. 2

FOR more than eighteen months No. 2 Squadron knocked vainly at the winner's door in the Commanding Officer's they finally came through under the capable direction of Corporal Mike Smigrowski to beat off the challenge of the athletes from No. 4, who were determined to retain possession of the trophy they won in April.

In the final team standings, No. 2 Squadron finished on top with 23 points, with No. 4 a close second with 19. They were furnished with little opposition, as Nos. 3 and 5 Squadrons each garnered only three points each, while Nos. 1 and 6 and Headquarters Squadrons registered goose-eggs. The games played included badminton, basketball, volleyball, soccer, lacrosse and softball.

Under the special arrangement for May, there were two knockout series played, games for the first half of the month being played indoors and the remainder outdoors. The outdoor games were somewhat hindered by bad weather and there were a number of postponements and several protests. Usually, in the C.O.'s Trophy sports there are ten points given to the winner of a game, but in this special inter-season series there were ten points given to the winner of the series in each sport and five points to the runners-up.

The final game in softball, which was played between No. 2 Squadron and No. 4, saw both teams appealing to the protest committee, which found that No. 4 Squadron had played a man who was ineligible because of transfer and No. 2 had played a defaulter. The ruling was that the game should be replayed, and when this was done, No. 2 Squadron was successful in winning, 14-6. As a result, scrolls are going to the members of the four winning teams of No. 2.

Sets Course Record

To Flt.-Sgt. R. V. W. Morriss, of FE Entry 14, goes the honor of having obtained the highest final mark of any of the flight engineers who have graduated so far, 87.9 per cent.

Flt.-Sgt. Morriss, whose home is in Kingston, Ont., joined the air force in June of 1938 as an AEM. He trained at No. 2 TTS, Camp Borden, and from there was posted in turn to Trenton, back to Borden, Mont Joli and Bagotville. He remustered to aircrew in December of 1942 as a pilot, then as a navigator and finally flight engineer. He has held the rank of temporary Flt.-Sgt. for three years.

Propaganda!

Some marines at Henderson Field in Guadalcanal were asked by some of the natives to teach them a few words of English. The marines obliged, and began by teaching them three words to be spoken when they extended a welcoming hand.

That's why, in the jungles of the Solomons, it is no longer a rare experience to meet a wild-looking native, who breaks into a smile, extends his hand, and utters the three memorized words of greeting, "Vote for Wilkie."

— The Canadian Airman

Soft Ball Champs Issue Challenge

No. 2 Squadron softball team went on the rampage in May and helped put No. 2 over the top in the contest for the CO's Sports Trophy. Now, with the June series under way, they are still a big threat for the TTS softball title, having won their first two games 11-0 and 9-1.

The softballers from No. 2 have now won seven consecutive games and are confident of winning more. They are coached by AC2 Irving Chapley, who is also captain of the team. Much of their success, Chapley says, is due to LAC Johnny Tanas, who also pitches for the station softball team. The No. 2 Squadron softball team wants it known that they are issuing a challenge to any squadron or station team who cares to take them on.

News for Ball Fans

For those who may have found our baseball news of interest last month, here are the Saturday and Sunday ball schedules, to the end of July, for the games to be played at Detroit (Detroit Tigers, American League), at Buffalo (Buffalo Bisons, International League), and at Toronto (Maple Leafs, International League). So if you'd like to take in a ball game during a 36 or a 48, here's the line-up. And don't forget that as long as you're in uniform, you can get in free.

At Detroit (home games): Saturday, July 15, and Sunday, July 16, Chicago; Saturday, July 22, and Sunday, July 23, Philadelphia; Saturday, July 29, and Sunday, July 30, New York. All Sunday dates are double-headers.

At Buffalo (home games): Saturday, July 1, Jersey City; Sunday, July 2, Montreal; Saturday, July 8, Rochester; Sunday, July 16, Newark; Saturday, July 22, Montreal; Sunday, July 23, Rochester. All Sunday dates except July 16 are double-headers.

At Toronto (home games): Saturday, July 1, Baltimore; Saturday, July 8, Montreal; Saturday, July 15, Buffalo. Only on July 1 is there a double-header scheduled. At Toronto there are no Sunday games.

SUNDAY SPORTS

Sports stores at TTS are open every Sunday from 1200 to 2100 hours, so if you want to play baseball, soccer, horseshoes, tennis or any other game, you can get the necessary equipment.

SPORTS WINNERS FOR MAY

Here are the winners in the various sports in which competition was held during May for the CO's Sports Trophy:

No. 2 Squadron Basketball Team

Cpl. N. Conway, AC2 T. E. D. Ferris, LAC W. D. Hilliker, AC2 S. W. Hitchman, LAC R. D. Ogilvie, LAC R. J. Parker, LAC W. J. Shea, AC2 Van Horne, AC2 P. Volpini, LAC D. M. Wood.

No. 4 Squadron Volleyball Team

Cpl. J. Marowitch, Cpl. A. A. Leach, AC2 L. F. Winchester, LAC A. G. Smith, AC2 T. J. Mounsey, AC2 R. G. Johnston, AC2 E. A. Rosgen; Cpl. W. Rozinski; AC2 A. G. Barnett, AC2 R. D. Grant-Henderson.

No. 4 Squadron Badminton Team

Cpl. H. A. Phlym, Cpl. F. R. Whittaker, Cpl. A. A. Leach, AC2 G. M. Harrison, AC2 W. E. Harvey, AC2 W. W. Hudson, AC2 J. W. Dayman, AC2 W. M. Crawford,

TTS Whips Fingal In Softball Contest

Raising the lid on the Western Ontario RCAF Athletic Association softball series for the 1944 season, TTS took Fingal Bombers into camp to the tune of 6-4 in a fast-moving game played at Fingal on June 1.

Steadied by the outstanding mound work of Tanas, the TTS pitcher, the visitors had a decided edge in the first seven innings. In the second, Wakeline, the TTS shortstop, drove in two runs and later added a third tally himself. In the fifth, Tanas drove in a run and in the seventh Patterson and Masterman both tallied. Fingal rallied in the later innings, but were unable to draw even.

Homenuk, formerly with Buffalo Bisons in the International League, was the star for Fingal, driving in three runs with his homer in the seventh.

Other stations in the league this summer are Aylmer and Crumlin, and games will be held weekly until July 6, when the first and second teams will play off for the title. Games scheduled for St. Thomas are June 22, with Fingal the opposition, and July 6, with Aylmer.

The TTS WD softball team also visited Fingal on June 1, but the home gals came out on top with a score of 8-4. Capitalizing on the TTS errors in the sixth inning, Fingal scored five runs to put themselves ahead 5-2, and that put them on top for the balance of the game.

TTS Loses Close Game

TTS baseball team journeyed to Windsor early this month to tackle a team from Chrysler Motors, but the Windsorites finished on the right end of a 1-0 score.

It was a pitcher's battle all the way, Gartin for TTS allowing only three hits and Wright for Chrysler allowing two. TTS was coached by Cpl. Harry Rabin, who played first, and Cpl. "Curly" Francis, who looked after the hot corner.

ARCHERY, GOLF OPEN

June 20 saw the official opening of the archery range and the miniature golf course, with the Commanding Officer shooting the opening arrow on the range. (He just missed a bull's-eye, too!) Both the range and the course will be open every evening—see the YMCA notices for further details. Next month we hope to have pictures of the activity at both spots.

No. 2 Squadron Softball Team

LAC J. Tanas, LAC C. T. Boville, AC2 D. H. Cavan, LAC A. J. Stacey, LAC P. V. Bowman, AC2 Y. Lefebvre, Cpl. N. Conway, LAC W. G. Howard, AC2 H. Jones, AC2 R. J. Parker, AC2 I. W. Chapley.

No. 2 Squadron Soccer Team

LAC I. R. Ahenakew, LAC J. Stevenson, LAC A. E. Chapman, LAC H. S. Jackson, LAC W. S. Robertson; LAC J. Shaw, AC2 G. Samuelson, AC2 W. P. Toderian, AC2 A. L. Pichette, AC2 V. Savitsky, AC2 L. N. Pallot, AC2 A. J. Szabo, LAC S. E. Rawlings, LAC V. G. York, AC2 M. K. Aaron.

No. 2 Squadron Lacrosse Team

LAC F. J. Fitzgerald, LAC H. F. Carter, LAC W. J. Shea, LAC E. C. Turner, LAC W. J. Slack, AC2 T. E. D. Ferris, AC2 T. J. Foran, AC2 B. I. Holmes, AC2 L. Zino, LAC J. Stevenson.

With the W.Ds.

Continued from Page 10

have her to thank for the beautiful spot now at our disposal. It was a disappointment to her to be moved just as things were beginning to shape up and we keenly missed her active backing. The members of the ball team also asked that their voice be added in thanking her for her help in making their swanky new uniforms. She aided in choosing both pattern and material and on the very night of her posting, she took time out from her packing to come down to the Canteen and cut out every uniform.

TTS had its own invasion this month but we'll bet that few people realized that the foe had come and gone, leaving destruction in his wake. We met WO 2 Smith one fine morning and after one look at his woe-begone expression, we asked the cause of all the gloom. It appeared that the Major was suffering from a stiff neck but when we started to commiserate, he interrupted us at once. His crochety vertebrae weren't the main cause of all his worries—far from it. "Do you know," he said "today I've got to go to town and get some poison—the cut-worms have eaten every row of the WD's corn in the Victory Garden." The Major prefixed a few adjectives to the cut-worms but we censored them for our gentle readers. The last report was that the poison had been purchased and duly doled out to the marauders—we sent up a little prayer that some other pest doesn't come along—we have a weakness for corn on the cob.

The Weaker Sex

You've heard that expression before now. This little incident leaked out from the MT section to refute it. It seems that a member of the valiant Fire Fighters squad was strolling past the garage the other day when he smelled smoke. A little investigation revealed flames burning merrily under the hood of one of the MT vehicles. Into the garage rushed our hero and shouted to the WD on duty there "Hey, one of your trucks is on fire." LAW Armitage, for such it was and none other, immediately picked up the extinguisher and put out the blaze while our noble FF stood helplessly by. Said "Army" in the telling of the story, "It wasn't anything. Someone had to do it."

Around the Diamond

With nights of practice and two games behind them the WD softball team can really boast of a season well started. Several newcomers have been added to last season's roster and the team promises to be a winner. Complete line-up is as follows: Captain and 3rd base, Sgt. Bea Dietrick; catcher, Wightman, Dahmer; pitcher, Kalar, Hodges; 1st base, Cpl. Hall; 2nd base, Cpl. Boggust; short, Sgt. Sullivan, Stewart; left field, Cpl. Brown; centre field, Gamble; right field, Sivertson.

F/S Musselwhite is managing the team this year and Sgts. Tammaro and Hughes are coaches. In the absence of the two latter gentlemen, due to their sojourns in hospital, Cpl. Rabin took over the task and a very good job he did, too. The TTS team with Aylmer and Fingal make up the South league, the winner of which will play the winners of the North league, either Clinton or Centralia. Incidentally, we hear along the grapevine that Clinton

has a pretty good team and that they've promised themselves the championship. How about it, gals?

Our first game was with Fingal on June 1st, and sad to say, we came out on the short end of the score, 7 to 3. However, the second game on the 5th against a civilian team from Weatherhead, St. Thomas, gave us a chance to reinstate ourselves and although no one seemed very sure of the final score, there was not a bit of doubt that we had won. The next games are as yet undecided, but no doubt the regular league schedule will be drawn up and we will really see action. The spokesman for the team reported nothing spectacular in the first game, and just one three-bagger in the second by Stewart. Only casualty so far has been "Mike" Wightman, who came out of the second game with contusions to the left wrist. Don't quote us, that's what the MO said. But she'll be right back in there next game as good as new.

Highlight of the team's appearance is their brand new, hand-made uniforms—maroon shorts, white sports shirts with TTS on the front and number on the back in maroon. The girls put in a lot of their spare time and burned the midnight oil to make the shorts but it was worth it. They really present a smart appearance in contrast to the conglomeration of slacks, shorts, blouses and dsweaters worn by the opposing teams.

We'll try to bring you a picture of them in all their glory in the very near future. As we've said elsewhere on the page, the girls appreciate Mrs. Hill's help while she was here, and Cpl. Brown asked us to also thank all the others, non-members of the team, who gave their time and assistance. Just one more thing—remember that even the best team in the world needs concrete support to keep on winning, so let's see more of you out at the games that are on deck, giving the gals a rousing hand.

Our New Cottage

Back on page 10 you'll find a story about our new cottage at Beachmount. It's already a popular going concern, and groups of the gals have been staying there every week-end. We have been promised a YWCA hostess for the months of July and August, although so far we don't know who it's going to be. More next month about our doings there.

No. 2 Drill Squad Takes CO's Trophy

'Twas a balmy spring evening, but in spite of it a fairly goodly crowd was there—i.e., at the Drill Hall on May 30 to witness the monthly competition for the possession of the Commanding Officer's Drill Trophy. And as usual they appeared to enjoy thoroughly the well matched drill and the intermission entertainment. Certainly there was no lack of enthusiasm when the winning squad was announced—everybody had picked the right one this time. Or should we say the judges had selected the squad which everybody else had decided was the winner.

At any rate, the drill itself was much more even this time due to the absence of any precision movements. And, while this may detract from the spectacular angle of the competition, it seems to lead to steadier and better drill on the part of all the squads participating. Backing this theory up, we notice that the marks awarded the squads were on a much higher average than has been the case previously. Cpl. Wilkie's winning squad from No. 2 Squadron earned themselves 96 points with a near-perfect performance. The runners-up, the squad from the Women's Division, garnered themselves 83½, but were closely followed by No. 1 Squadron with 83.

Wing Comamnder Marks, in summing up and congratulating the winners, thanked all the squads for their fine showing on such a beautiful evening when they would probably much rather be elsewhere. He also commended the band under F/S Leroy. Flight Officer D. Newson presented the trophy to the winning squad.

We should mention also the new departure in intermission entertainment as staged by our YMCA men under Aruold Ducklin. Mr. Ducklin becomingly garbed as Lady Godiva, put her "wonder horse" through a series of highly amusing antics which kept the crowd constantly laughing. A new idea and a very good show.



No. 2 Squadron Takes Drill Trophy

Here are the members of the winning drill flight from No. 2 Squadron, which won the CO's Drill Trophy last month with the record-setting mark of 96 points out of a possible 100. It was in charge of Cpl. J. M. Wilkie, who saw his men step out in front a good 13 points ahead of their closest opposition.

TECHNICAL TOPICS

The Hydromatic Propeller

By Cpl. W. L. Conner

LONDON, March 7, 1944 — "Strong formations of heavy bombers of the 8th Bomber Command of the USAAF, escorted by American, RAF and Dominion fighters, were over the Ruhr and industrial Germany yesterday. This was a follow-up of the previous night's raid over this area by the RAF and RCAF squadrons of Lancaster, Stirling and Mosquito bombers. Twenty of our aircraft are missing."

Thus did the leaders of the Allied air offensive, against Hitler's Festung Europa, announce the beginning of the systematic destruction of the heart of Germany's war industry. Behind these lines of official statements, we find the men and machines which are responsible for these successes. Not only to the air and ground crews must go the praise and credit for these missions, but also to the engineers, designers and manufacturers whose industrial genius and foresight have made possible our present gigantic air armada.

A study of the advance of aviation in the years between World War I and our present conflict will reveal that the modern aircraft has been developed along three major lines—the airframe itself, the engine, and the propeller.

Without the modern types of aircraft propellers, the advances made in airframe and engine design would have been of little value. With the exception of the recently announced experiments in jet propulsion, the propeller at present represents the only practical way of successfully converting the power created by the engine into forward flight of the aircraft. One of the most successful and most widely used propellers at the present time is the Hamilton Standard Hydromatic propeller which has constant speed control.

This propeller, which is manufactured in the U.S. by the Hamilton Standard Propellers division of United Aircraft Corporation and under license by the de Havilland Aircraft Corporation in England, is a result of tireless effort and unremitting experimentation on the part of engineers employed by these firms.

To understand more completely the principle of this propeller, we must first consider some of the outstanding events in the history of propeller developments.

In the early days of aviation all of the propellers were of the fixed-pitch wooden type. These were obviously inefficient inasmuch as the blade angles were fixed and could only be sent to cover one operating condition. This could be likened to an automobile with only one gear.

The advent of the supercharged engine caused the propeller designers to develop a propeller which could be used to meet varying operating conditions. This was a propeller in which the blade angles could be changed in flight by the pilot and was known as the variable-pitch, two-position type. It allowed the pilot low

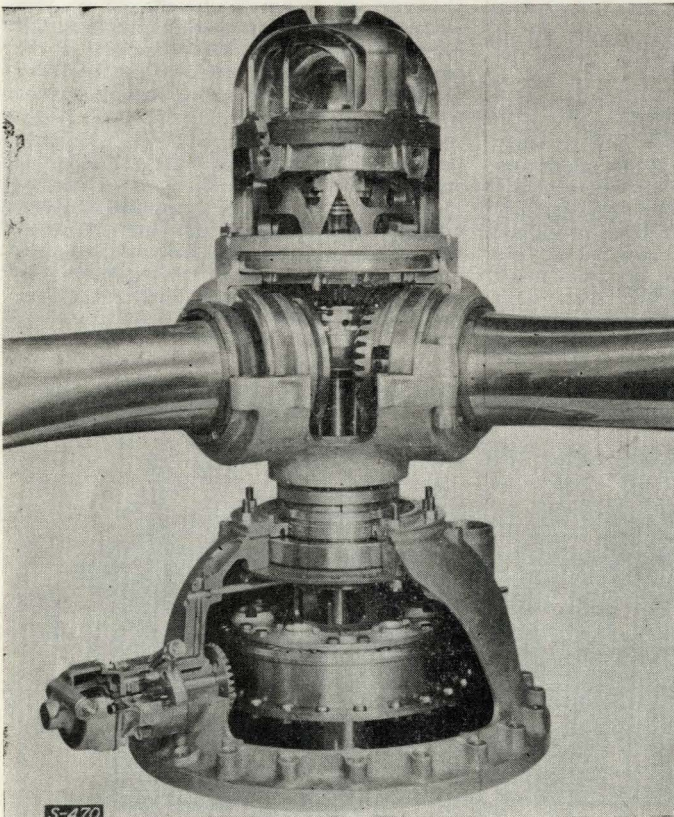
or fine pitch angle for take-off and climb, and a high or coarse pitch angle for cruising R.P.M. in level flight. This design, first developed by Hamilton Standard and aptly called "the first gear shift of the air," won for its designer the Collier Trophy for 1933 for the year's outstanding contribution to aviation. There were still definite limits, however, placed on engine-propeller efficiency by the two-position type under all operating conditions. To overcome these problems, the system of constant speed control was inaugurated about two years later.

Constant speed control consists of a governor coupled to the control system of a propeller having a wide range of blade angles. This governor automatically provides for a continuous variation of blade angles necessary to maintain utmost engine efficiency at any selected R.P.M. This type of control gives aircraft a range of performance previously unknown. The Hamilton Standard Hydromatic propeller is equipped with constant speed control.

Another outstanding feature that has been incorporated in the Hydromatic is the ability to "feather" the blades. Feathering consists of turning the blades to such a coarse pitch or high blade angle that they lie in the direction of flight, stopping propeller rotation. This feature is used on the propellers of multi-engine installations in the event of engine failure. Under these circumstances, if the propeller blades are not feathered they will act as a "wind-mill" and rotate the engine at dangerously high speeds, resulting in further damage to the engine already stopped for other causes. The act of turning the blades into the line of flight also reduces blade drag to a minimum and leads to a definite improvement in single engine performance and control of the aircraft. Many cases have been reported in which the feathering feature has enabled an aircraft to fly high enough and fast enough on the remaining engine or engines to gain a friendly aerodrome and thereby save the crew and machine.

The pitch-control mechanism of the Hydromatic propeller is of the simple rugged hydraulic type in which the pitch of the blades is controlled by a precision, engine-driven, constant-speed control unit. This unit regulates the angle of the blades to maintain a constant engine speed and the synchronization of the propellers of a multi-engine installation.

Three fundamental forces are utilized



Here's What It Looks Like

The picture above shows a cutaway view of the Hamilton Standard Hydromatic propeller, while the view at the right shows how it looks when installed on a Vought "Corsair," new U. S. Navy shipboard fighter plane. Drawings on pages 15 and 16 illustrate its method of operation.



CPL. W. L. CONNER

Cpl. W. L. Conner, the author of the accompanying article, is a native of Philadelphia, Pa. He enlisted in the RCAF in July of 1941, and has been at TTS since August of that year. He was formerly engaged in civil aviation activities in Philadelphia.

to control the blade angle. They are: (1) The centrifugal twisting movement of the blades to low or fine pitch, which is used to decrease the pitch of the blades and thereby decrease the R.P.M., (2) Engine oil pressure, used to aid the centrifugal twisting movement and insure positive control forces toward low pitch, especially at low engine R.P.M., (3) Governor oil pressure, which is engine oil pressure boosted by the governor unit, and is the control force which moves the blades to coarse or high pitch and thereby decreases the R.P.M. The necessary balance between these control forces is maintained by the propeller governor which meters to, or draws from the propeller, the quantity of oil required to maintain the proper blade angle for constant speed operation.

When it is desired to feather the blades, an auxiliary pressure supply system is necessary. This consists essentially of an independent oil supply with a provision for manual control by the pilot to provide up to 400 pounds pressure for feathering and 600 pounds for unfeathering. When, during the unfeathering operation, the propeller blades have been moved into the flight operating range, normal constant-speed control automatically becomes available.

Basically the pitch-changing mechanism of the Hydromatic propeller is illustrated in figure No. 3. The angular blade movement is obtained by converting the straight line motion of the piston to a rotating cam motion. Blade angle increase results when the piston is moved forward by boosted oil pressure from the governor unit. Blade angle decrease results when the piston is moved inboard by engine oil pressure supplemented by the centrifugal twisting movement of the blades. For "on speed" operation the forces are balanced.

Three major sub-assemblies make up the main structure of the Hydromatic propeller. They are the hub and blade assembly, the dome assembly, and the distributor valve assembly.

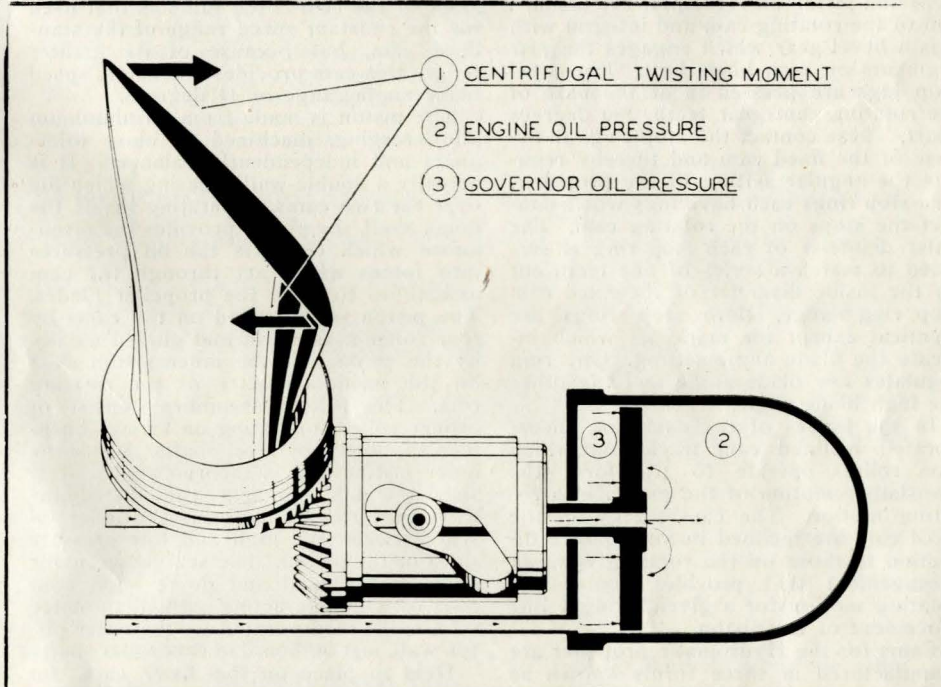
The hub and blade assembly in turn is made up of three main parts: the spider, the barrel, and the blades.

The spider may be considered as the foundation of the entire propeller. It is made from a chromium-nickel molybdenum forging which has been heat-treated so that the best combination of strength and machinability has been obtained. Its central bore is splined to fit the propeller shaft of the engine and it is through these splines and cone seats that the engine torque is transmitted to the propeller. A wide spline has been left to match the master spline of the engine shaft. Cone seats are ground at each end of the central bore and at the outer end provision is made for the propeller retaining nut and front cone, by which the propeller is fastened rigidly to the propeller shaft.

Forged integral with the central portion of the spider are arms which extend into the blades and locate them in the

propeller assembly. These arms incorporate two finely ground bearing surfaces. The large diameter bearing is located nearest the central portion of the spider and the smaller bearing near the outer portion of each arm. The arms are hollow for lightness and incorporate drilled passages to allow a flow of lubricant around the bearing surfaces between the arms and the blade bushings. The blades are supported by the spider arms, which also take the greater part of the blade thrust and torque loads. A groove is machined outboard from the front cone to accommodate the hub snap ring. During propeller installation this snap ring is inserted around the propeller retaining nut on the outboard side in the groove just described. To remove the propeller, the retaining nut is backed off the shaft and as it advances along the propeller shaft threads, it moves the front cone, which contacts the snap ring and thereby moves the entire propeller off the rear cone.

and ground to the proper profile and angle. To lighten the blade and provide for the blade bushing, a portion of the shank of the blade is forged hollow and bored to a finished size. The butt end of the blade incorporates two steel thrust washers between which is a heavy duty roller bearing. The washers are placed on the blade before the forging operation which puts the shoulder on the butt end and for this reason are not replaceable on a finished blade. The inside of the inner thrust washer is fitted to the fillet machined on the blade butt. Centrifugal blade loads are transmitted from the shoulder on the blade butt, through a phenolic type of split chafing ring, through the inner thrust washer, the roller bearings, the outer thrust washer, to the barrel. The roller thrust bearings between the two steel thrust washers are designed for low functional torque under high centrifugal blade loads. The phenolic split type chafing ring previously mentioned is fitted on the blade between



The barrel is the casing which encloses the propeller assembly. It is made from a chromium-vanadium drop forging heat-treated to ensure maximum strength. The barrel is machined in half sections which are ground and balanced as a pair and are kept together throughout the service life of the propeller. The high centrifugal loads of the blades are carried by the barrel by means of shoulders provided at each blade bore. Lips are incorporated outside the shoulders to hold the blade packings. These packings are neoprene seals of the chevron type and are used to make the assembly oil tight between the barrel and the blades. An oil seal is also fitted into a groove between the barrel halves. The halves are held together by bolts and nuts which are fitted through bosses incorporated on each half of the barrel in the arc between the propeller blades. The bolts are hollow to allow for the addition of lead wool to aid in the final balancing of the propeller. Each bolt is closed with a welch plug. The barrel is supported and aligned on the spider by use of phenolic blocks located between the spider arms. Hydromatic propeller blades are made of aluminum alloy forgings machined

the blade thrust radius and the inner thrust washer. This ring prevents chafing of the aluminum blade by the steel washer and also serves to reduce stress concentration.

The blade bushings are made of an aluminum bronze alloy. They are shrunk into the tapered blade bore and located by two drive pins. Each blade bushing incorporates eight half circle slots which are used in the attachment of the blade gear segment. The gear segments are made of steel forgings and have eight slots equally spaced around the inner periphery of the segment. These slots correspond to those of the blade bushing. Attachment of the gear segment is accomplished by the fitting of spring pack assemblies into the slots. The spring packs also provide a gear pre-load between the teeth of the full gear on the rotating cam of the pitch changing mechanism, and the 15 teeth on each blade gear segment with which they are meshed.

Each blade is fitted with an aluminum plug which is wedged into the blade bore just beyond the outer end of the blade bushing. Its purpose is twofold: first, it prevents oil from passing into the ex-

treme end of the blade bore, and secondly, it incorporates a stud on which washers may be installed for initial propeller balance.

The dome assembly comprises the pitch changing mechanism by means of which oil forces on a double-acting piston and translated into blade twisting movements.

It consists of four major parts, namely, two coaxial cams, a double walled piston and a dome cylinder which acts as a housing for the entire unit.

The cam assembly consists of one stationary cam made of nickel steel and one rotating cam also made of high nickel, low carbon steel, but case hardened. When the dome assembly is installed in the propeller hub, the stationary cam rigidly fixed in the barrel on locating dowels provides support for the remaining parts in the dome unit. The rotating cam revolves inside the fixed cam and is supported by means of ball bearings which also serve to take the gear reactions and piston oil forces. At the inboard end of the rotating cam and integral with it is a bevel gear which engages the gear segments on each blade butt. Two steel stop lugs are pressed in at the base of the rotating cam gear teeth, 180 degrees apart. These contact the stop rings in the base of the fixed cam and thereby regulate the angular setting of the propeller. The stop rings each have lugs which contact the stops on the rotating cam. The outer diameter of each stop ring is serrated to match a series of fine teeth cut on the inside diameter of the fixed cam stop ring flange. Both stop rings are identical except for markings which indicate the blade angle setting. One ring regulates low blade angle and the other the high blade angle.

In the bodies of the cams are incorporated inclined cam tracks on which cam rollers operate to transform the translatory motion of the piston into rotating motion. The cam tracks on the fixed cam are inclined in an opposite direction to those on the rotating cam, an arrangement that provides double the rotating motion for a given straight line movement of the piston.

Cams for the Hydromatic propeller are manufactured in three forms known as

standard cams, fast-acting cams and straight slope cams.

The standard cams incorporate the two slope cam tracks, i.e., the longer track for constant speed operation and the shorter one for feathering. This arrangement provides a constant-speed blade angle range of 31 degrees.

Fast-acting cams are used in propellers in which a more rapid pitch change is required. The cams are machined with a lower cam track slope which results in a more rapid blade angle change for the same piston travel. However, because of the lower mechanical advantage of this type of cam, a higher oil pressure must be provided by the constant speed governor. With these cams, the propeller has a constant speed blade angle range of 45 degrees.

In the third, or straight slope type of cam, the constant-speed range is extended and the feathering range is omitted since this type of cam mechanism is only used on non-feathering installations. The slope of the cam is the same as that used for the constant speed range of the standard cam, but because of its greater length this cam provides a constant speed blade angle range of 44 degrees.

The piston is made from an aluminum alloy forging, machined to close tolerances and independently balanced. It is actually a double-walled casing which fits over the two cams. Operating inside the dome shell, the piston provides the mechanism which converts the oil pressures into forces which act through the cam assemblies to twist the propeller blades. The piston is supported on the cams by four roller assemblies and guided axially by the contact of the inner piston skirt on the inside diameter of the rotating cam. The roller assemblies consist of bronze rollers operating on bronze bushings supported by steel shafts. Inside the inner piston wall is incorporated a steel sleeve which contacts the distributor valve seal rings and forms the inner oil seal between the high and low pressure sides of the piston. The seal between the outer piston wall and dome shell consists of a double acting gasket, mounted on a ledge incorporated on the outer piston wall, just outboard of cam roller shafts.

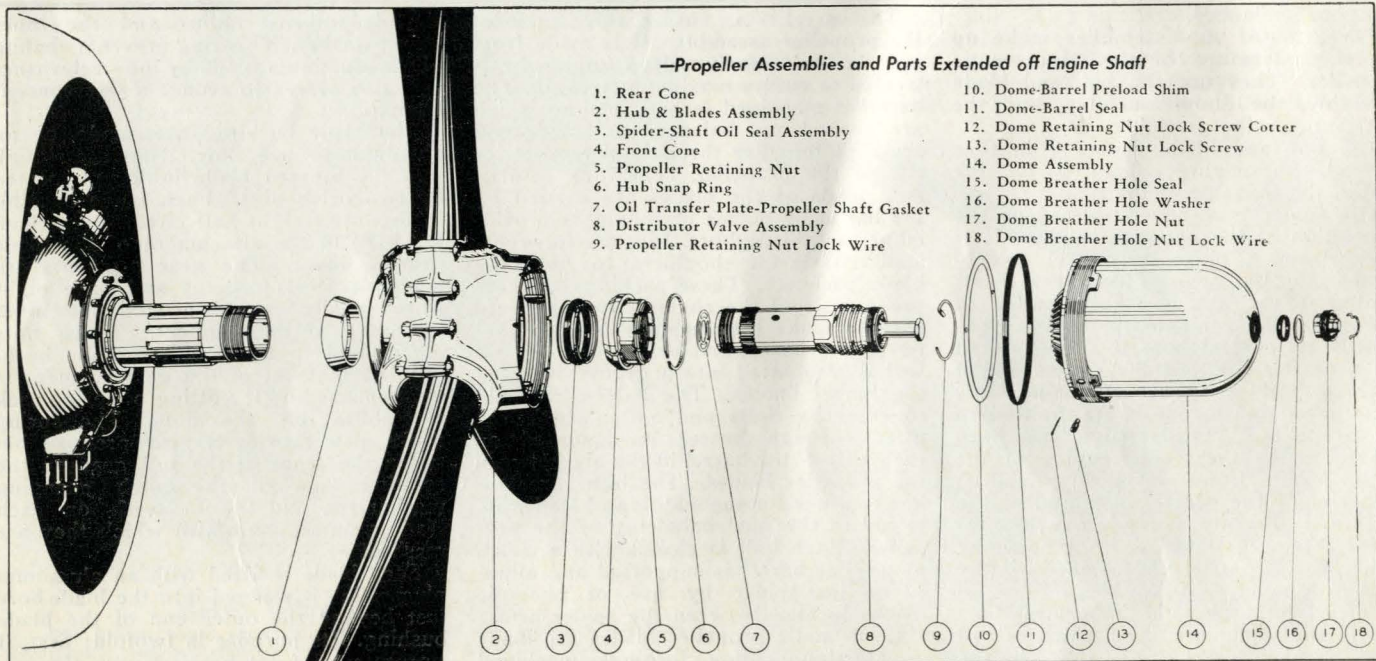
Held in place on the fixed cam, for

handling and installation, by six fillister head screws, is the aluminum alloy dome shell. This shell forms the cylinder in which the piston operates and also serves as a modified spinner on the assembled propeller. The dome is fastened to the propeller assembly by the dome retaining nut which is threaded into the outboard half of the barrel and locked in place by a screw which fits into a half circle groove in the barrel and screws into the dome retaining nut. The screw in turn is locked by a cotter pin. The outboard end of the dome shell incorporates a tapped hole. This hole is plugged on non-breathing installations and a dome breather hole cap on installations on which the engine breathes through the propeller shaft. In the latter case a passage for the engine breather gases is provided through the distributor valve housing.

The distributor valve fits inside the propeller shaft and extends into the dome assembly. During constant speed and feathering operations, the valve provides oil passages for governor or auxiliary oil to the inboard side of the piston, and engine oil to the outboard side. However, during the unfeathering operation, the valve shifts under a pressure of 600 P.S.I. and reverses these passages so that oil from the auxiliary pump flows to the outboard side of the piston, and the inboard side is open to engine pressure, thus reversing the pressure differential and moving the piston toward the inboard end of the cylinder in order to unfeather the blades. The distributor valve housing is an aluminum alloy casting, cored to provide required oil passages. The inboard end of the housing is threaded to match with threads on the inside of the propeller shaft.

On installations of the non-feathering type the distributor valve is replaced by an engine shaft extension assembly. This is similar to the distributor valve assembly but includes only two passages and no valve. One passage is used to carry governor oil to the inboard side of the piston and the other passage carries engine oil to the outboard side of the piston.

Appreciation is expressed to Hamilton Standard Propellers for their co-operation in making available much of the information contained herein.



Nighttime in a Foxhole

When it's nighttime in a foxhole,
Dark the shadow shapes that form
To deceive the watcher, waiting,
Waiting for the man-made storm.
Watching, waiting in the darkness,
Straining each and every sense,
Madness lurks o'er every shoulder,
Nerves are taut and muscles tense.
What is that now creeping inward:
Creeping, crawling shape so gray?
Breathe a prayer, brother watcher,
It is morning, it is day!

—Pte. Carl Ennis, in "Yank"

Doubting Damsel

She had a vague distrust of men,
Her wondering whole life long,
And never yielded to the yen
To see if she was wrong.



Around the Circuit

Compiled by Sgt. G. P. Hawke

Nudities

A story is being told of an American conscript who needed a minor nose treatment. "Since you're the one who discovered this," he told his medical board doctor, "how about you doing the treatment?" The doctor told him to report at the surgery the next morning.

When he arrived, the doctor said: "Go into the next room and remove all your clothes."

"Just for a nose treatment?" the patient protested.

The doctor repeated: "Remove all your clothes."

The man went into the adjoining room and removed his clothes. There he saw a stranger, nude, holding a package.

"All I need is a minor nose treatment," the conscript told him, "and the Doc makes me take off all my clothes."

"That's nothing," sighed the nude stranger, "I just came to deliver a parcel."

—The Canadian Airman

The Good Old Days!

A neutral visiting Berlin was curious about the food situation. He asked one of the natives, "Is it true that you Germans are eating horse meat?"

"Ah," reminisced the Nazi, "those were the good old days!"

—The Bull Horn, N.A.T.T. Centre, Norman, Okla.

For Your Necessary Action

In the annals of all history there is nothing holds more mystery
Than the terms reserved for military use;

And years of concentration in the service of the nation
Can make a great Commander of a Goose.

The humble acey-ducey when he copes with problems juicy
Has to bring them to a satisfactory close,

But the mighty Wing Commander simply writes with cunning candor
"For your necessary action," and he's through.

When the Adjutant is leery of the meaning of a query,
And he hasn't got a notion what to do,
He overcomes his chagrin by noting in the margin,
"For your necessary action," and he's through.

The problems of the nation or a point on sanitation
Will be dealt with as they rise by the C.O.

The wrong will soon be righted, for on the page he cited,
"For your necessary action," records show.

In the climb of our great nation to its even higher station,
Many qualities have played their little part,

But to the Military faction—"for your necessary action"
Will always be the closest to its heart.

—F/S R. W. Elliott in Thumbs Up, Dartmouth.

• • •

Betrayed!

Judge: "You say the defendant stole your money from your stocking?"

Plaintiff: "Yes, your honor."

Judge: "Then, why didn't you resist?"

Plaintiff (pouting): "Well, how did I know he was after my money?"

—Thumbs Up

• • •

The boys in the dispensary at Tyn-dall Field report that they have discovered a new Army occupational disease. They have named it GI sili-cosis. It's contracted by inhaling gold-brick dust.



"My boy friend knitted it for me."

• • •

Extra! Extra!

There was a young maid from St. Paul
Wore a newspaper dress to a ball,
The dress caught on fire
And burned her entire,
Front page, sports section and all.

• • •

"I want to die with my boots on."
"Okay, get 'em on. Here comes my husband."

—Wing Tips, Mather Field

• • •

"Im going to love you until the cows come home."
"Okay, fresh guy. But meanwhile you don't have to pet the calves."

—Fingal Observer

• • •

Chops!

I went to the market to buy me some meat
Along with the rest of the hoarders,
The butcher backed me into the slicing machine—
Got a little behind in his orders!

—Beachcomber, Vancouver



"Bit of flak, wot?"

Alex Holding

May Doings at TTS

Sports and the drill competition shared the spotlight in the May activities at TTS. The picture at the bottom, left, shows the CO's Drill Trophy being presented by F/O Newson to Cpl. J. M. Wilkie of No. 2 Squadron, whose flight walked off with the prize with a mark of 96 per cent. The other officer is Wng. Cmdr. Marks. Bottom, right, is a scene from the comedy act staged at the drill competition by the YMCA staff. Lady Godiva is Arnold Ducklin, while the horse is Hugh Peart (front) and Willard Trafford (rear). Other pictures illustrate May sports activities. The boys on the obstacle course are Flight Engineers, while the softball players are the Band and No. 5 Squadron.

