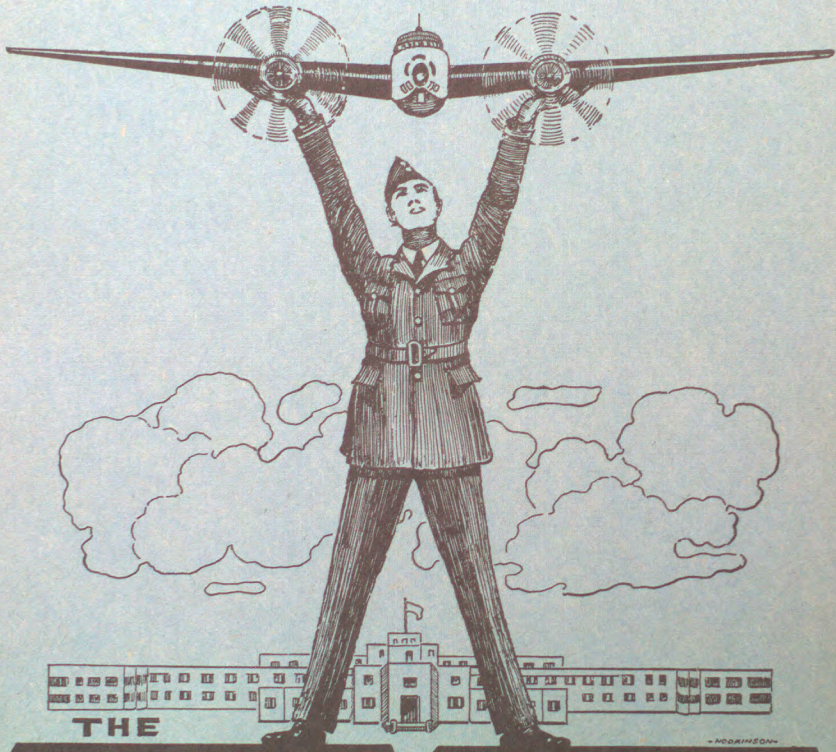


THE
Aircraftman

VOL. 1 - NO. 12

JULY 1, 1941

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STATION COMMITTEES

* * *

Officers' Mess

S/Ldr H. J. Adkins (P.M.C)
F/O W. L. Marshall (Secretary)
F/Lt A. G. Vince
F/Lt E. D. Armour
F/Lt N. K. Skelton

Sergeants' Mess

S/Ldr N. McLeod (Officer in Charge)
W/O A. Holdsworth (Chairman)
WO/2 Arden (President)
F/Sgt Adair (Secretary-Treasurer)
Three Members

Corporals' Mess

F/Lt Cronyn (Officer in Charge)
Cpl. Symington (Secretary-Treasurer)
Cpl. Judge (Chairman)
President (to be elected)
Three Members

Airmen's Mess

S/Ldr N. McLeod (President)
F/Lt V. P. Cronyn (Secretary)
F/Sgt Acton (Kitchen)
L/AC Doyle, E. & A.T.S.
P/O A. R. Little, 1 Wing
F/O E. Hendry, 2 Wing
AC/2 Friedman, 1 Wing
AC/2 Gallagher, 2 Wing
L/AC Dalzelle, Headquarters

Canteen

S/Ldr E. Peacock (President)
F/O W. E. Tuer (Secretary)
F/O D. Armour
Two Airmen representatives

Sports

F/Lt A. S. Turnbull (President)
F/O G. Ross (Treasurer)
F/O R. K. Armstrong
F/O E. Hendry
F/O A. R. Little
F/Sgt Harvard
F/Sgt McMahan
Cpl. Maybie
WO/1 Stubbs
R. G. Gibson (Secretary)

Entertainment

F/Lt H. N. Williams (President)
F/O E. Hendry
W/O C. Taylor
F/Sgt M. J. D. McGuire
R. G. Gibson (Secretary)

P.S.I.

S/Ldr N. McLeod (President)
F/Lt V. P. Cronyn (Secretary)
F/Lt H. N. Williams
F/Lt W. G. Cooke
F/O T. C. Shore

Awards

S/Ldr N. McLeod (President)
F/Lt A. G. Vince
WO/1 Lowe
WO/1 Plumbridge
F/Lt M. C. Davies
R. G. Gibson, Y.M.C.A. (Secretary)

Welfare

F/Lt M. C. Davies (President)
F/Lt H. F. O. Smeaton
F/Lt Roberts
Mr. R. G. Gibson (Secretary)

Fire

S/Ldr N. McLeod (President)
F/O R. K. Armstrong (Secretary)
F/Lt A. S. Turnbull
O.C. No. 1 Wing
O.C. No. 2 Wing
S/Ldr H. S. Adkins
Mr. McLachlan (Station Engineer)
Sgt/Maj M. H. Mills (R.C.A.M.C.)

War Savings

G/Capt R. Collis (Chairman)
F/Lt A. G. Vince (Secretary)
S/Ldr A. R. Sinclair (Treasurer)

Members:

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S/Ldr J. S. Eley, O.C., E. & A.T.S.
F/Lt H. N. C. Williams, O.C. No. 2 Wing
F/Lt V. P. Cronyn, O.C., H. Q. Sqdn.
F/Lt N. K. Skelton, No. 1 S. No. 1 W.
F/O G. Ross, No. 2 S. No. 1 W.
F/O A. R. Little, No. 3 S. No. 1 W.
F/O J. M. Harris, No. 1 S. No. 2 W.
F/Lt W. G. Cooke, No. 2 S. No. 2 W.
F/O E. Hendry, No. 3 S. No. 2 W.
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"THE MAN IN THE SERVICE"



"He doesn't ask for sympathy—in fact, he resents it. He is doing a job for his country and trying to retain his normal outlook on life at the same time. He wants to return to normal living a better citizen and a better man."

—The Most Rev. John F. O'Hara, C.S.C.,
 in a Radio Broadcast.



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« « EDITORIALS » »

FAITH IN OUR CAUSE

There have been many explanations offered for the fall of France. Certainly it was a fact that called for explanation. When you remember that at no time since the last war was the period of conscript training less than one year; that military experts considered the French Army the finest in the world; that France had some five to seven million men under arms; it seems unbelievable that she could be completely and thoroughly beaten in one month.

To say that France's Air Force was inadequate; that her tanks were not used effectively; that she had no plan to cope with a break through her frontier lines, can only afford a partial explanation of the tragedy. The truth must be much deeper than that. France fell because the average Frenchman had lost faith in himself, his government and his country. When I speak of "faith" here, I am speaking of something quite different from religious conviction. The France we knew had lost that, too, but it is not to that I am referring. I mean that in the post-war years there had grown up in France a generation that believed in nothing, that was cynical about all the "grandes et belles vertus"; a generation that scoffed at honor, integrity and heroism. Nothing seemed worth fighting for; nothing worth dying for.

Such a philosophy is fatal for fighting men. It would have been better for France if the riots of February 1934 had developed into a full-blown revolution and the cynical sluggards that were fattening off the life blood of a great country had been swept to the guillotine. Even if France had been weakened for the moment, out of that weakness would have come a new strength. But the dead apathy that tolerated years of misgovernment, recurring scandals and financial corruption could only result in the tragedy of 1940. If France had only had a few more years, in all probability she would have found her soul. The spirit that fought at Verdun might be dampened for a while, but it would have burst forth again, clear and burning. But while France was losing faith in her grand destiny, Germany was developing a new faith in her's—a false faith, an unjustified faith, but a fanatical, aggressive, sacrificing belief that she had never been beaten; that she had been treated harshly; that she was now strong enough to exact her revenge. Now each of these claims may be demonstrably false, but

the point is, the Germans believed in them and out of that belief has grown German strength.

We must meet that obsession with a greater faith. The German fanaticism is based on falsehood. Our faith is based on truth. With all its faults, our democracy is far more worth fighting for than totalitarian autocracy. Our way of life is not only a more pleasant one, a more comfortable one, it is fundamentally a better and more honorable one. It is not sufficient to recognize that academically. We must fill ourselves with enthusiasm for the cause for which we are fighting. We must develop the crusading spirit that counts as nothing all the sacrifices of service, unquestioning obedience, rupture of family ties, denial of self. Hard sacrifices? Yes, but worthwhile and necessary, for out of that spirit of sacrifice will be formed a national character, hard enough and strong enough and bold enough to carry us through to victory.

* * *

AIR GUNNER IN ENGLAND

There's more to England yet than crumbling, smoking ruins. Beneath the battle scars she's still Old England. Stricken though she is, the stout heart, the good cheer, the never-say-die spirit are still clearly visible, shining brightly and eternally through the passing gloom. The bomb pictures we see in the papers, stark and grim, are not all there is; ration cards and food shortages are not the main topic of conversation. Life in England still goes on; and it still goes on our way, not by way of the "new order in Europe."

At least that's the way Sergeant M. A. Johnson sees it. Sergeant Johnson is the only son of A. W. Johnson, member of the Ontario Public Works staff here. He is twenty, an air gunner graduate of Fingal, about a year out of school and seeing Europe for the first time. With his Canadian eyes he sees England almost as of old, as many of us knew her, in spite of the grievous troubles besieging her. He sees peace and quiet. He sees gaiety and entertainment, and business going on. He sees spirit and more spirit, the "carry on" spirit. Read what he says:

May 6, 1941.

R.C.A.F., Somewhere in England.

Dear Mother and Dad:

Well, here I am in merry England, and is it ever good to be back on good old terra firma!

Page Two

The countryside here is absolutely wonderful, so calm and peaceful.

London is the busiest and most congested city that I have ever been in. Many of the buildings are scarred and shattered by enemy air raids, but in no way has this lessened the spirit of the British people. Never before have I heard of such determined spirit.

Dil and Mike and the rest of the old gang are training up in Scotland some place, so consequently I have been unable to see them. Last night we stayed at the Bedford Hotel, but at present we are staying at the West Central. Both are very comfortable hotels.

The Sergeants' Mess at Benson, our training unit, is swell. The food is the best and the mess fees are extremely low. The unit itself is about as large as the training school at St. Thomas. It is a permanent R.A.F. Station, like the permanent R.C.A.F. Station at Trenton . . . etc., etc.

Lots of love,

BUB.

* * *

May 9, 1941.

R.C.A.F., Somewhere in England.

Dearest Folks:

Well, my leave is over and I sure had a swell time. London is full of entertainment, especially in Piccadilly. We are very comfortably situated at Benson and are really having a good time. The food in the Sergeants' Mess is

* * *

« « SPORTS » »

SQUADRON SPORTS DOPE

By A. Square Deal

1 Squadron, 2 Wing, after an extensive worry hunt in the Squadron, finally came through with a pitcher to round out a very strong ball club.

2 Squadron, 2 Wing are supplying a top-flight Lacrosse referee in AC/2 Suter. "He calls 'em as he sees 'em."

1 Squadron, 1 Wing, after a slight relapse, are beginning to percolate once more and with a few more Lacrosse players should be right in there.

perfect. It is the best that I have had since I joined up.

Casey, Frank Hart and Ron Cadieux are here with me. We are flying . . . censored . . . They are a very safe and successful plane. So you see you have nothing to worry about.

While we were on leave we stayed at the West Central Hotel. Ron and I found ourselves very comfortable there. They only cater to Canadians. I ran into Al Birchall from St. Thomas so we had a swell reunion. I think that Al lives on Balaclava Street. He is an air gunner and has made several successful trips over Germany. He is a nose . . . censored . . . in a Wellington.

Folks, you have no idea nor could you imagine how wonderful the English spirit is. It will take more than Hitler and his damn air raids to break it.

Speaking of air raids, we were in one last night and let me tell you it was no fun. Quite a few buildings in London are demolished but business goes on the same as usual.

There are two pilots on the Station who were with me at Regina. They are Parker and Owen; they are both very decent lads . . . etc., etc.

Lots of love to you Mother and Dad,
BUB.

* * *

Sergeant Johnson's letters strike a reassuring note. Certainly he has seen no shortage of food and it appears there are still many places to go in London. England carries on!

* * *

E. & A.T.S. will be talking about that Ball Club for months. Seven straight isn't bad in any league.

Sports Rallies are becoming quite fashionable these days. Headquarters have joined the swing. Looks like fair weather for Headquarters Sports from now on.

3 Squadron, 1 Wing are really becoming Trophy conscious, team practices, etc. Go to it, gang; lots of luck!

3 Squadron, 2 Wing have a mighty midget Lacrosse player in a little red-head. Boys, he's a honey!

Page Three

2 Squadron, 1 Wing have shown themselves to be the all-roundest sport squad on the Station in the last few months.

* * *



* * *

2 Squadron, 1 Wing Make It Three In a Row; Win C.O.'s Trophy for May

For the second time in the history of the Trophy competition the "Hat Trick" has been pulled by a Squadron. This time it was 2 Squadron, 1 Wing. Led by that Mighty Man Maybie and that ever-present Storm Trooper Cpl. Harris, 2 Squadron athletes amassed a total of 159 points against 153 for 3 Squadron, 2 Wing. E. & A.T.S., making a comeback in the Trophy series, placed third. This gang will bear watching in future months. From the standpoint of participation and competition, May's series was highly successful and the O.C., N.C.O.'s and men of 2 Squadron may well be proud of their triple victory.

* * *

STATION SOFTBALL

The T.T.S. Softball Team, comprised of players from the Squadron Teams, inaugurated the season by defeating Fingal 10-6 at Fingal. Sgt. Farr of Fingal and Cpl. Bradley of T.T.S. were the opposing pitchers. This looks like the beginning of many interesting pitchers' battles between these two as both are top ranking hurlers. A good crowd of Officers and Airmen provided the sound effects.

* * *

STATION ACTIVITIES

The Inspector-General's Inspection

The aftermath of the visit of Air Vice-Marshall G. M. Croil, A.F.C., on May 27th, 1941, was no different from that of other similar occasions. While brows were being mopped and shoes loosened, the question in the minds of many was "What was there to worry about, after all?"

So must the first-night actor feel when the final curtain falls and the audience is loudly proclaiming its enthusiasm.

After taking the salute at a "March Past," which lasted for nearly thirty minutes, the Inspector-General carried out a keen-eyed inspection of the Station.

It is hoped and believed that the sinking of the Bismarck was not the only reason for May 27th being a highly successful day.

IT HAPPENED IN JUNE

With the coming of the summer weather, the emphasis in entertainment has swung from indoor stage shows to tours.

About one hundred and twenty-five men took advantage of the Y.M.C.A. tour on Sunday, June 8th. The bird sanctuary, which is rapidly becoming a favorite spot to visit; White's Pond, with its tame bass (sorry, boys, no fishing allowed), and Mr. Lew Johnson's tobacco farm were on the itinerary. The lemonade and buns were just a little welcome surprise which the "Y" provided.

The big tour of the month was on June 15th, when, under the guidance of Bob Gibson and Alderman Askew, two busloads of men from the School, some of them with their ladies, made the trip to Niagara Falls and the adjacent places of interest. Through the co-operation of Premier M. F. Hepburn, Hon.

T. B. McQuesten, Minister of Highways, and their colleagues, the party saw all the sights from dynamoes to daisies in the experimental gardens. Dinner was provided by the Parks Commission (the raves about it are still coming in) and the party was entertained at tea by the Y.M.C.A. in St. Catharines.

It was a great day! The co-operation of all concerned was greatly appreciated. Let us hope that it is not too long before another trip can be planned.

MEDALS



New students to the Station will be interested to know of the various medals offered—Gold, Silver and Bronze. The Gold Medals are for Academic achievement; the Silver for contribution to the welfare of the Station, and the Bronze for achievement in sports. A cut of the medal is shown on this page and on the reverse side is suitably engraved with the winner's name and the nature of the achievement. They will make a life-long keepsake and every Airman should aim to be the proud winner of one of these medals. Here is a brief outline of what is required to win the three different medals:

Gold Medals—The Honor Student Medals awarded to outstanding students. The following rules are adopted as a basis for presentation of Gold Medals:

1. Honor Students will be selected from each trade and entry enrolled for training at the T.T.S., St. Thomas.
2. To be eligible for this award, a trainee must:
 - (a) Have successfully qualified in every phase of technical training for his trade, in accordance with T.T.S. Standards.

- (b) Have obtained at least 85% on the aggregate.
- (c) Have had no entries on his conduct sheet, or have been entered in the guard report while under training.
- (d) Have not been retarded at any time during training by reason of being a backward student.
- (e) Have conducted himself in an Airman-like manner at all times.

No, they are not easy to win, but they represent a job well done to those who have persevered and managed to come out on top. Start today and see if you can be the Gold Medalist of your Entry.

Silver Medals—Awarded to Airmen who have made a special contribution to the welfare of the Station. It may be along the lines of entertainment, work on THE AIRCRAFTMAN or any other activity which generally benefits the Station. Winners of this medal have made good use of their spare hours.

Bronze Medals—To winners of the various lines of sports which, for the most part, includes team champions in the Commanding Officer's Trophy Series, which is an Inter-Squadron monthly competition, but may also include a particular achievement in the line of sport which brings honor to the Station. For the month of June, winners of Softball, Lacrosse and Soccer will be awarded medals; in July, Tennis will be added to the Commanding Officer's Trophy Series and also the Track and Field winners. So aim to be a member of a championship team.

All Medals are to be presented on special occasions and by the Commanding Officer personally.

* * *

LIBRARY CORNER

By A. Askew

Evidently THE AIRCRAFTMAN must be read quite thoroughly, even including "The Library Corner." Last month we recommended six new books that had just come in. Before the Library closed next day, all six of the books had been taken out. This is so encouraging that we'd like to try it again. The "Book of the Month" Club sent us two books this month, as wide apart both in style and content as, let us say, Hitler's Storm Troopers and the Boy Scouts. "Junior Miss" is not a girl's book, but a delightful record of incidents in an American family, fairly well-to-do, but not disgustingly rich. No action, no real narrative even, and certainly no sex appeal, but humorous and whimsical all the way through. Just the thing for a hot evening with a long, cool, bitter—

wrong, ginger ale! Arthur Koestler is probably not more than thirty-five years old, but he has seen and experienced plenty of life in that time. Journalist and novelist, he has worked in Germany, covered the Spanish Civil War, been imprisoned by the Fascists and knows Russia, and what is more important, knows how the Russian mind works.

"Darkness at Noon" is his first book to be offered on this side of the Atlantic. It is a novel centering around the Moscow trials, written by one who saw the drama being worked out day by day. Read it for information, not for fun.

Too highbrow! Surely not, but here is a couple by Zane Grey, new to the Station Library, "Forlorn River" and "The Thundering Herd."

We were poring over a bookseller's catalogue the other day, when one of our "constant

* * *



The Good Deed Dancerettes, part of Eaton's Good Deed Entertainers, who were here recently. The show is under the direction of Mr. Claude Knapman, the orchestra is directed by Mr. William Ruffles and the above Dancerettes are under the capable hands of Miss Helen Kerr. They will be back, we hope!

* * *

CALENDAR OF ACTIVITIES

(Newcomers to the Station can follow the following set-up for recreational and sporting activities from week to week. Special events or any change in any particular week can be noted in the Y.M.C.A. Daily Bulletins which are posted up in all Squadrons.)

* * *

SUNDAY

- 0910 Hrs.—R. C. Church Parade.
- 1000 Hrs.—Protestant Church Parade.

MONDAY

- 1900-2000 Hrs.—Scheduled Inter-Squadron Games.

TUESDAY

- 1900-2000 Hrs.—Scheduled Inter-Squadron Games.
- 2015-2200 Hrs.—Cinema, supplied by the Y.M.C.A.
- 2100-2430 Hrs.—"Bachelor" Dance (at the Y.W.C.A., St. Thomas).

readers" came in and we offered him his choice. Here's three of the half dozen he picked: Aldous Huxley's "Point-Counter Point," Sinclair Lewis' "Elmer Gantry," and Kipling's "Barrack Room Ballads." I added "All Quiet On the Western Front." Now read 'em and tell us what poor pickers we are.

The technical books recently asked for, particularly on Hydraulics, we hope to have in shortly.

About Stamps—just postage stamps. We try to carry these for the convenience of men on the late shift and others who find it inconvenient to get to the Post Office, but don't rush, us, boys; don't rush us. One 25c book to one customer ought to be enough. If you need more than that, we suggest you negotiate directly with the Government.



Mr. Leslie Sommerville and his talented Good Deed Singers from Hamilton, who entertained us in recent weeks. We hope to have them back some time during the fall.

* * *

I'm Just an A.E.M.

I'm just an A.E.M.
 I belong to the R.C.A.F.
 I'm an Airman but I don't fly—
 Flying is done by pilots—
 But I'm an A.E.M. so I don't try.
 Most people think all Airmen
 Are flyers through and through,
 But what's the use of flyers
 Without a good ground crew?
 Flyers make the Air Force,
 So all the pilots think,
 But a pilot has his wings clipped
 When his engine's on the blink.
 Now when you hear a pilot boasting
 Of the flying he has done
 Give a thought to the A.E.M.
 Who made his engine run.
 An A.E.M. is mighty important,
 As most of pilots have found,
 Because if an A.E.M. hasn't checked it
 His ship stays on the ground.
 When a pilot takes a plane up,
 No matter how good he is,
 If the A.E.M.'s have failed him
 A forced landing is sure to be his.
 A pilot's life depends on
 The crew upon the ground;
 If the A.E.M.'s are good ones
 His engine will always be sound.
 And when a pilot's through with flying
 And he turns his prop for his heavenly home
 He'll find A.E.M. are awaiting him
 On that long-sought aerodrome.

THE LIFE WE LIVE

It is a kind of encumbrance to be overmuch praised.—Ancient Greek Proverb.

It seems to me harder to find a man who bears good fortune well, than one who bears evil.—Xenophon.

How vain is learning unless intelligence goes with it!—Stobæus.

There are as many pangs in love as shells upon the shore.—Ovid.

He that will not reason is a bigot; he that cannot reason is a fool; and he that dares not reason is a slave.—Sir William Drummond.

Deduct all that men of the humbler classes have done for England in the way of inventions only; and where would she have been but for them?—Sir Arthur Helps.

How hard it is to make an Englishman acknowledge that he is happy.—William Makepeace Tackeray.

We may say of angling as Dr. Botelei said of strawberries: "Doubtless God could have made better berries, but doubtless God never did"; and so, if I might be judge: "God never did make a more calm, quiet, innocent recreation than angling."—Izaak Walton.

AMONG THE SQUADRONS

SQUADRON 1, WING 1

NOTES FROM THE ENTRIES

By AC/2 Pearce, O. W. M.

The 56th definition of the difference between an Easterner and a Westerner is that the former, when the weather gets cold, puts on his spats, while the latter pulls his long underwear down.

George Pilgrim of the 63rd, the lad who persists in talking in his sleep, has been known to give out, among other information, a certain address in London. Perhaps a gag will help George.

Members of the 57th are much concerned as to the personnel of the No. 1 Duty Flight when they leave.

The 60th extends its sympathies to McCutchin, the Airman disciple of a certain Mr. I. Walton, who has spent some valuable sunlit days on the front lawn. We hope that he has found some locality where he can get ample bait for his next extended fishing trip.

Ashby of the 56th, judging by his efforts in Art, has missed his calling. It has been suggested, however, that he would be of benefit to aviation by giving his attention to the drawing of aero chasses.

Barrow of the 57th, the ex-commercial traveller of 40,000 miles a year fame, set out for Toronto on his last "Forty-eight" and ended up at Niagara Falls. What was it, Corp? A simple case of misdirection or perhaps a more complicated one of "better direction"?

Bay 8 of the 64th bought a shining new iron, but alas and alack, two days later it disappeared. The Bay has gone plutocratic and now patronizes the commercial pressing firms.

"Two Ton" Stew Patterson of the 60th has just become engaged to be wed (Congratulations!) and has been carrying out the practice of missing his supper and taking workouts every evening. What! Orders already, Stew?

We did not anticipate braving the terrors of the jungle when we camped at T. T. S., but a recent episode has caused us to change our minds. Ask Carroll of the 60th. He lost a chunk out of his finger the other night when a rodent—mouse to you—needed a very early morning snack.

When the Critics Snap the Quip King Lear. He played the king as if someone had led the ace.—EUGENE FIELD, *Boston Globe*.

A. B. Walkley, London critic, wrote the following review of a play called "Dreadful Night": "Exactly."—JAMES ASWELL.

SPORTS

By Cpl. Hewlitt

We give our thanks to the good sportsmen of this Squadron who are really out there doing their best. With a few good practices, our boys will have to be respected and that is giving credit where it is due.

Our Softball team is now in full stride and it will be good—playing the opposition to a full stop.

Other Squadrons are fast finding their places and that is because they practice. So come out, 1 Squadron, and practice. If you don't play, at least attend the games. Let's get together and have the Lacrosse and Soccer teams among the leaders too.

SQUADRON 2, WING 1

By Cpl. Maybie, J.

No. 1 Wing had four new AC's come on the Station; they all have their wings and seem very happy chirping away, the Kildeer brothers.

The Great 49th Entry, with such colorful performers as Abe Labelle, Frankie Seymour, MacPherson, etc., are now on their way to the great open spaces out West. No. 2 Squadron wish them all the success and luck that the good Lord can pass on to them.

SPORTS

The Squadron is still in there pitching. We have some wonderful athletes and great sportsmen and wish to thank each and every man who turns out for sports.

The Great Gallagher of Lacrosse is on his way—Good luck, Gal.

Welcome to 61 and 62 Entries. These lads have come down here from the West and are really beginning to straighten out the East. They are all a great bunch of sports.

2 Squadron, 1 Wing went to Union with one of their Softball teams and defeated them 12-6. Good old 2 Squadron.

Six of the 49th Entry have been kept on as potential instructors. Nice going, gang!

US

By Wing Nut

No. 2 Squadron are a pretty good bunch. Though they scrounge out of parade and scrounge into lunch.

To see their drill team is really a treat. And in all kind of sports they are real hard to beat; The C.O.'s Trophy with us does repose. But a lot of the credit goes to our N.C.O.'s. There's Corporal Maybie, who organizes the boys. And at the games makes lots of noise.

ALONG THE SPORT LINE

I am very pleased to announce that this Squadron is the tops in the race for the C.O.'s trophy. Now, if the drill team gets out to bat and brings in its share of the points we will be able to capture the Trophy without any trouble. So come on, boys, strut your stuff and things and let's go over the top with a bang.

The only thing lacking in this squadron now is items for the paper, but I hope to remedy that in the near future. I know that the boys have good items but for some reason they fail to send them in.

AU REVOIR TO THE 46th

By P/Cpl MacDuff, D. J.

In leaving they have extended to this Squadron and the Technical N.C.O.'s their thanks for the way they were treated during their stay here, and in their own words I quote: "We sincerely hope we can go forth and uphold the name that T. T. S. well deserves."

In the same letter from P.S.M. R. Granger of "B" Company, Toronto Scottish Regiment, the following was taken:

"You look quite nice in your blues, and speaking of right guide reminds me of a story: In the last war Earl Haig was inspecting British troops in France. After walking for days, he came upon a little Corporal at the extreme right flank. Earl Haig asked him if he knew how important he was and if he knew his position. The little Cockney piped up, 'Yes Sir, I am the right-hand man of the right section of the right-hand platoon, of the right-hand Company, of the right-hand Brigade, of the right Division, of the right-hand Corps, of the whole blooming British army, and if some silly XZ/XZ says left form I will be running for the rest of my blinking life!'"

DELETE ONE

We used to be eight of a kind, but now we are seven. Cpl. Cooke, A. W., who hailed from Brantford, has now been posted elsewhere, but he will long be remembered by the seven of us: Cpls. Pearsall, Gay and Lundberg of Toronto, Cpl. Rutherford of Brantford, Cpl. Millar of Peterborough, and Cpls. Taylor and Stanley of Edmonton. We first met in old No. 2 Entry and have been together through thick and thin ever since.

Signed,

WE ARE EIGHT SEVEN,
C.G.L.M.P.R.S.T.

Some of the old-timers of this Station will remember Squadron Leader Russell and will be pleased to learn that he has written to us and congratulated us on THE AIRCRAFTMAN. He has also promised to write a short item for the paper, so keep your eyes open for next month's issue.

WE WOULD LIKE TO KNOW?

Under what corner of our building the contractors hid the "Corner Stone."

Which of the many theories on subjects expounded upon by the various instructors are correct.

Where all the "Daily Routine Rumors" arise from.

Now Corporal Harris is our drill squad disip. And when it comes to drill he sure is a pip. Then there's Flight/Sergeant Rowley with the carrot-top head. Just blows his whistle and we fall out of bed. Last but not least is our Squadron O. C., Who takes a real interest in all that we do. So is there any wonder, with a line-up like that, The C.O.'s Trophy is right in the hat!



SQUADRON 3, WING 1

By Cpl. Stanley, W. M.

SIGNS DON'T TELL

Man is not old when his hair turns grey,
Man is not old when his teeth decay,
But man is due for his long, long sleep
When his mind makes dates his body can't keep.

IT WAS STATED

By A. Trainee

When we press the Jettyson switch instead of the bombs dropping, the rear gunner falls out.

Aircraft radiators are placed near the front of the aircraft to warm the air in front of the pilot and so prevent him from freezing at high altitudes.

That if you put the throttle through the gate you will soon meet St. Peter, but most of the Airmen would be sent to the other place.

Home was never like this and we hope to H— it won't ever be.

THE AIRCRAFTMAN

When No. 3 Squadron, 1 Wing will keep up the good start that they make for the C.O.'s Trophy and finally bring home the bacon.

Why certain Corporals of this Squadron are riding bicycles to school these days. And in answer to this, why don't other living-out men follow the example?



SQUADRON 1, WING 2

By Falle, L.

Entries come and entries go but N.C.O.'s go on for ever (in more ways than one).

However, they don't go on for ever with the same Squadron; so at this point we wish to give our new top N.C.O., "Flight Harvard," a hardy but none the less sincere welcome.

We wish to assure him that we think he is "tops" and are glad to have him in charge.

At the same time we also wish to say good luck to Flight Hutchinson. We could go a long way before we could find a person who treated us fairer or squarer than he did. We will certainly miss you, Flight Hutchinson.

Once again, we wish to extend greetings to the new entries coming into our Squadron. They will find the "comradie" of its "trainees" unequaled in the whole School.

QUOTABLE QUOTES

(To Help Us Forget P.T.)

Sociable Precautions—"One should not speak evil of people with whom one has just dined, within a radius of 100 yards from their house."

A Slight Inhalation—"I like a dash of onion in everything. I don't practice breath control."

An Airman's Objection?—"Oriental movie-goers object to scenes where lovers are shown frying in deep fat of passion."

Isn't It a Fact?—"Money is like manure: of very little use lest it be spread."

A Bare Fact—"The churches of Canada are sprinkled with bald-headed old sinners whose hair has been worn off by friction of countless sermons that have been aimed at them and have glanced off and hit the man in the pew behind."

IN LIGHTER MOOD

Sgt.—"Rhuda! Why aren't you standing at attention?"

Rhuda—"I am Sgt. It's just my coveralls that are at ease."

Cpl.—"Can you show me a Dope Strut?"

Whittle (pointing to Cameron walking away)—"Right there, Cpl!"

Cpl.—"What would you personally consider the main disadvantage of a split-axle undercarriage?"

Collins—"Why, the amount of work to repair it, Cpl.!"

Cpl.—"What is a Fillet?"

Rodgers—"A Fish."

Cpl.—"What is 'wash-out'?"

Haugen—"Cleaning out a plane with a hose."

SPORTING GLAMOUR

"Zip!"

Those No. 1 Squadron men whip that lacrosse ball into the net so fast the goal-keeper can't see it.

"Zap!"

What a forehand drive! It is easy to see he is a No. 1 Squadron player.

"Crack!"

What a hit! It is a home run! Where does that man come from? Why, No. 1 Squadron, of course!

"Pheet!"

The Soccer "goal whistle" is sure kept busy when No. 1 Squadron is on the offensive.

"Clang!"

Just another "ringer." If they keep this up they will "ring the C.O.'s Trophy for sure."

The athletes of No. 1 Squadron are turning in excellent performances. Keep up the good work, fellows, and also induce any men from the new Entries who are good in sports to participate in them.

The Soccer team has been turning in fine performances.

The Softball team scored a victory recently over 3 Squadron, 2 Wing. More to follow.

The Lacrosse team is turning in an ace-high performance after a ragged start.

THE REAL WEST

By AC/2 Freeman, W. E.

You Eastern people seem to think

The Prairies are the West;

They're west of here, I will admit,

But, boys, that's not the West.

The West is many miles away,

Beyond those distant hills,

Save and Lend for Victory

To assist the Government of Canada in a larger sale of War Savings Certificates, the T.T.S. in common with all other R.C.A.F. Stations, has arranged for Officers and Airmen to pay for such Certificates through reductions from pay in amounts to be designated by the individual.

The right of an Officer or Airman to spend his pay as he pleases is well known, and the Service continues to stress that right, but in the midst of a mighty war it is considered a duty and a privilege to co-operate with the Government in urging all members of the R.C.A.F. to contribute to the war effort further by the purchase of War Savings Certificates. The Service undertakes to act as "trustee" in the purchase of such Certificates through regular payroll deductions.

The costs of war must be met. Participation in that financial phase of the war must be shared by every member of the community, but particularly by those who are gainfully employed while their colleagues take up arms overseas.

To secure this common contribution toward the cost of the war, the Government resorts, in part, to outright taxes on every member of the community who can afford to pay such taxes. Officers have already been called upon to pay National Defence and Income Taxes.

Taxes will not, in themselves, meet the entire cost of the war effort. A wise government has made arrangements to borrow part of the money that it requires immediately, with a promise to pay at a future date. If it succeeds in securing sufficient contributions of this sort, its citizens will be relieved of the necessity of meeting an immediate burden of taxation that might prove crushing. Indeed, its citizens are to be enabled to recoup their present contribution, with a premium, at a later date when the money may be badly needed.

The importance of our participation in the war is fully realized by the Governments of Great Britain and Canada. Every Canadian shares to the fullest in that participation. His individual job is vital to successful prosecution of the War. Let no one underestimate the rôle

he is playing by constant attention to his daily task.

It is not the wish of the Service that undue pressure be put upon any member to subscribe more than he can afford to the purchase of War Savings Certificates. It is desired, however, that each Officer and Airman clearly realize the situation that confronts all of us—and act accordingly. War-time financing is a means by which the nation shares its war-time burden.

You, alone, must judge whether or not you Buy War Savings Certificates Regularly.



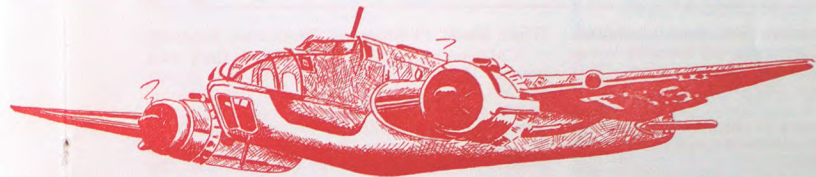
WAR SAVINGS COMMITTEE

G/CAPT R. COLLIS Chairman
F/Lt A. G. VINCE Secretary
S/LDR A. R. SINCLAIR Treasurer

MEMBERS:

S/Ldr E. F. W. Peacock O.C. No. 1 Wing
S/Ldr J. S. Eley O.C., E. & A.T.S.
F/Lt H. N. C. Williams O.C. No. 2 Wing
F/Lt V. P. Cronyn O.C., H.Q. Sqdn.
F/Lt N. K. Skelton No. 1 S. No. 1 W.
F/O G. Ross No. 2 S. No. 1 W.
F/O A. R. Little No. 3 S. No. 1 W.
F/O J. M. Harris No. 1 S. No. 2 W.
F/Lt W. G. Cooke No. 2 S. No. 2 W.
F/O E. Hendry No. 3 S. No. 2 W.
F/O H. F. Morris E. & A.T.S.
Mr. Oliver Civilian

WORK



SAVE

IS-2W 27.62%

3S-1W 29.06%

H. Q.31.%

2S-2W 37.02%

2S-1W 37.29%

CIV.38.42%

3S-2W 42.78%

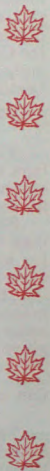
E.A.T.S. 55.17%

IS-1W 74.76%

LEND

YOUR
SAVINGS
TOTAL
\$20,104
NOW

H. E. Bradley



Save and Lend for Victory

Quite often we are put into a position whereby we can do some good towards someone, or something, we love or value. This usually entails some inconvenience or expense to ourselves.

Other times we are in the opposite position, of being able to do ourselves some good, possibly at a cost to others.

Rarely does the opportunity arise where we can help ourselves and by so doing help another worthy cause.

War Savings Certificates have created just this opportunity. By purchasing the safest investment that can be obtained in Canada, you do not only purchase an interest-bearing Government Bond, but make funds available for Canada's War. For this reason I unhesitatingly recommend the purchase of War Savings Certificates as an act of *good, sound business*.

Three Reasons Why Every Airman's Help Is Needed

First—Because, by investing in War Savings Certificates, he is helping to increase the output of planes and ships, guns and ammunition.

Second—Because, by investing in War Savings Certificates, he is building a cash reserve for himself—for his family—against post-war uncertainties.

Third—Because every dollar he spends unnecessarily helps to take people and machines away from war production, and thus directly gives aid and comfort to the enemy.

GENERAL INFORMATION

Can an Airman Buy War Savings Certificates for Someone Else?

Yes; an Airman may have the Certificates issued and registered in the name of any individual or non-profit-making organization that is specified at the time of purchase, unless such individual's or such organization's holdings would thereby be increased beyond the \$600 statutory limit.

Why Are War Savings Certificates Registered?

To protect the registered holder a record is kept at Ottawa of every Certificate issued, showing the name of its registered holder so that the Certificate itself is of no value to anyone else.

Can War Savings Certificates Be Given, Transferred or Assigned to Someone Else?

No; they are non-transferable and non-assignable; cannot be attached or used as collateral. They are redeemable and repayable only to the registered holder, except in the case of death.

What About Children As Registered Holders?

Children may hold Certificates in their own names. If a child is under twelve years of age at Certificate maturity date, the signature of parent or guardian is required. At ages under twelve years, redemption before maturity is not permitted, unless the Minister of Finance is satisfied by the parent or guardian that the money is urgently needed for the education, maintenance or benefit of the child. In the case of children over 12 but under 16, the signature of both minor and parent or guardian is required at maturity or prior redemption. The signature of any minor over 16 years of age is accepted.

What Happens If War Savings Certificates Are Lost, Stolen or Destroyed?

They will be re-issued three months after notice if satisfactory proof of loss is submitted. The registered holder should notify the War Savings Committee, Ottawa, immediately in the case of loss and provide details, if possible, as to when and where the Certificate was purchased, its denomination and registered number.

What Happens If the Registered Holder Should Die?

In the case of death, Certificates are considered to be part of the registered holder's estate. His legal representatives or heirs should immediately notify the War Savings Committee, Ottawa, and arrangements may then be made to have the War Savings Certificate redeemed for its appropriate cash value or transferred to the name of an heir.

Is the Increase in Value at Time of Redemption or Repayment Subject to Income Tax?

No; due to the difficulties of calculation, the small amounts involved and the limit on individual holdings, holders will not be required to report the difference between the purchase price and the redemption value of War Savings Certificates as income in making returns under the Income War Tax Act.

What About Safekeeping of War Savings Certificates?

The Bank of Canada will place the Certificates in safekeeping free of charge. They may be withdrawn at any time.

What Is the Smallest Amount an Airman May Assign Monthly?

An Airman may assign as little as \$1.00 per month. At the end of four months he will receive a \$5.00 Certificate.

REMEMBER!

We must accomplish by voluntary action more than the enemy can do by compulsion.

THE AIRCRAFTMAN

Those giant upheavals in the earth
Which bring all strangers chills.
Beyond the massive rockies

Is God's country at its best;
I'll stick to that country,

You folks can have the rest.
The East is very pretty,

But you'd thrill if you could see
A car coming up a roadway

And passing through a tree.
We're proud of our great forests,

Our spruce and Douglas fir;
This incident I mention,

It really does occur.
Our coast is very pretty

With its inlets, coves and bays;
It runs right from Alaska

Down to good old U.S.A.
The streams and lakes throughout the land

(There's lots of them about)
Aren't only beautiful to look at,

But they're crammed right full with trout.
You go skiing in the morning,

Swimming in the afternoon,
And then at night, in Stanley Park,

Sit gazing at the moon.
You can have your Great Lakes

And your maple sugar trees;
Me, I'll take the land I love—

That heaven called B. C.
* * *

SQUADRON 2, WING 2

SAGA OF SPORTS

By AC/1 Gordon, W.

A game that has gained prominence on this Station in the last two months is Box Lacrosse, Canada's oldest sport. Lacrosse dates back to 1685, when the Indians astounded some French missionaries by playing it. They watched in awe as the Indians, some three or four hundred men, divided themselves into two sides and with a strange-looking weapon, a stick with a rawhide pocket at one end, and with a ball as the prize, proceeded to descend on it with blood curdling yells and screams. You can imagine the scene: players being felled with one blow, broken noses, etc. The team with the most men left on their feet after the game won.

The game has changed since those days, cutting down the number of players to seven, improving the stick and putting the game in a box enclosure, thus getting the name Box Lacrosse. The best lacrosse sticks are still made by Indian craftsmen, who have not lost their skill through the years.

Well you fellows from the East have a game that baffles those Westerners. So come on you Westerners; come out and see a he-man's game played.

Our hope for a speedy recovery goes out to AC/2 Sullivan who suffered a broken ankle in one of our recent games.

At this point we wish to welcome the addition of the 65th Entry into our Squadron.

Here's hoping the Drill Squad holds up its end (the 61st Entry) and completes our efforts to bring the Trophy back to 2 Squadron, 2 Wing.

SQUADRON 3, WING 2

SPORTS

By Cpl. Jorgenson, G.

It seems that the best we have in sports is only second best. Again Squadron 3 has placed second in the monthly aggregate. All we need, fellows, is just a little more push to get over the hump. We have proved over and over again that our athletes can take on the best on the Station. So let's all get together on next month's drive and break the jinx.

* * *

SOCCER

Maintenance vs. Routine

Spills, thrills, goals and mud were all in the offing in this May Day game. It was a battle royal between two fighting soccer teams, Instructors of Flight Maintenance vs. Instructors of Routine, which ended in a 1-1 tie.

From the sound of the first whistle every man was in there, even if only in mind at times.

Maintenance took an early lead with Hogg tallying the first marker; it held through the better part of two more quarters—; then came the deluge—. The harder it rained the harder they played, and they played on headless of raging elements.

The Routine goalie found refuge under the old elm tree, while Sgt. Willis, on the other end, cursed. i/c accents lowly Canadian "fogs."—A peal of thunder and in the midst of the scramble F/Sgt Gemmell, with an unerring kick drove home the tying goal.

"Quote": "I said the game was washed out, not a washout."

Cpl. Gerard was largely responsible for organizing this game and we hope to see more of them.

* * *

RAMBLINGS

Someone said—that sarcasm is the lowest form of wit—therefore the basis of all wit.

* * *

It is written: We are born crying, live complaining and die disappointed.

* * *

Talk is the father of trouble. Men and Fish are safe until they open their mouths.

Some people are born Dumb, others acquire Dumbness, and still others try to Explain matters to the S.P's.

* * *

AVIATION RECORDS

Statistics, 1940

Distance flight (Great Britain) in two Vickers Wellesley Bombers were flown from Ismdilia, Egypt, to Port Darwin, Australia, in 48 hours, a distance of 7,158.933 miles.

* * *

Height (U.S.A.) a balloon, the Explores II, ascended to a height of 72,550 feet. There were two passengers aboard.

* * *

Height of an Aeroplane (Italy)—a Caproni was flown to the height of 56,017 feet.

SQUADRON NEWS — AND VIEWS

We are pleased to welcome F/Sgt Hutchinson to our 3 Squadron.

The boys would like to know who is now making Cpl. Mycock's moccasins.

Equipment and Accountant Training School

In connection with our "Organized Sports" afternoon, our School recently accepted an invitation from Courageous Chapter of the I.O.D.E. of Tillsonburg to have our famous softball team play an exhibition game with the Elgin Regiment team, the proceeds of which were for the Red Cross. The invitation also included as many rooters as possible. The ladies of the I.O.D.E. surely are a "courageous chapter" as no less than 130 Trainees and Staff invaded their fair town in support of the team. The very kind residents opened their homes to the boys for supper, par excellence, and a delightful evening prior to the floodlight game. We managed to sneak out a win before a capacity crowd by a score of 10-8, which put the finishing touches to a swell outing. The thanks of our School is extended through this paper to the generous ladies of Tillsonburg.

NOTES FROM HITHER AND YAWN

We wish to welcome the 17th Equipment Assistants and 7th Clerk Accountant Entries who are now enrolled as trainees in these courses. They appear to be a very fine class, but will have to step to surpass previous entries. It is hoped that they will enjoy life at this School, enter into the spirit of good sportsmanship in all things but, above all, remember that there is a job to be learned and a job to be done—a School's good name to uphold and a war to be won. And none of these can be accomplished by a half-hearted effort. So, to the 17th and the 7th, get in there and punch, boys, but be careful where you aim!

STOP THE PRESS NEWS! EXTRA!! Hot off the Press!!! Now, for the first time, we have arranged for the publication of a new "best seller," "My First Aeroplane Ride" or "The Wright Brothers Were Pikers," by F/Sgt Sisk. Read the thrilling adventures of the Sisko Kid over Trenton; how he held a wing in place until he had landed safely; how he stopped the propeller in flight to unravel a bird's nest; how he stepped into space with two parachutes open and spent the best part of an afternoon suspended in mid-air while crosswinds decided who would take him, or who wanted him! These experiences and many more will appear shortly in serial form in THE AIRCRAFTMAN.

It is rumored that WO/1 Foran sat in his office and refused to answer any of the 17 calls put in by WO/2 Borysuik of our School. Whereupon our Johnny whistled over to Mr. Foran's office to see him. No sooner had he got himself into the office than the phone rang and our Johnny brilliantly remarked, "You'd better not answer it, Gus, maybe it's me again."

And who is the new trainee who asked if V.D. was considered a self-inflicted wound?

The editor of the "Do You Know" column last month reminded us of the chap who refused a job which would have paid him .01c doubled each day for 31 days. He quickly calculated it to be \$5.12 for the first 10 days and refused the job. Had he taken it, he would have received very close to eleven million dollars for his month's work.

Our Sooper-Snoop Department reports that the O'King - O'Doyle affair is at the boiling point. Impetuous youth gave way to experience last week, and the old man scored a few points on his own, without retaliation. And in the meantime the gal is probably wondering how she ever inherited a combined "nursery and home for the aged."

Now that the rifle-shoot is over, and our prowess exposed, maybe some of the bragging will subside. Prior to the shooting there were very few of us who couldn't thread a needle with a tracer bullet at 200 yards. It has now been verified that we'd be lucky to be able to hit Germany in the Hess with a scoop shovel. Couldn't more target practice be arranged?

FLIGHT 6 JITTERS

By AC/2 Parsons, A. G.

'Twas the day of exams, and all through the class The boys' boots were shining, and so was their brass; Each lad was nervous, yet anxious to go On ten little questions, all in a row! Then in strolled our Flight and, facing the class, He said that he hoped that each one would pass; So into our papers we dived right away, To see what the first question would have to say. After reading it over, ten minutes or so, Sammy spoke up and said . . . if I know. The second was on the new N.D. Tax, Then we could see that our studies were lax; By the time we were finished with Question Ten Most of the boys said "Never again"; By the look on their faces, it was easy to see, That each one was thinking "General Duties for me"; So we all went away on a "48" pass To refresh ourselves for the next month in class. Then, returning on Monday, our Flight said, "Well done, Get into 'Equipment' and give it the gun."

HEADQTRS. SQUADRON

THE ARMY AND THE AIR FORCE

By Pte. Rath, J. R.

The question is very often asked, "Who are these Army men and what are they doing here?"

There are considerably less than a hundred Army men on this Station. They are members of the several units required to assist the Air Force in maintaining certain essential services. The units are the Royal Canadian Army Service Corps, the Canadian Army Dental Corps, and the Canadian Postal Corps.

The R.C.A.S.C. are responsible for the supply of food which they inspect, receive, store and issue to the Air Force, both here and at Fingal.

The C.A.D.C., as their name implies, are the dentists and dental assistants. Their duty is the maintenance and running repairs for the teeth on the Station, and

when you consider that the average man has between twenty-eight and thirty teeth and estimate the number of men you can imagine the enormity of their task.

The C.P.C. are our constant contact with the outside world, bringing the letters from home which are necessary to make life a happy one.

In addition to all the services of an ordinary city post office, they operate a savings bank.

The constant thought of these units is the welfare of the R.C.A.F. in material things. The main regret of the R.C.A.S.C. personnel is that they do not have a hand in spirit(ual) affairs; but the M.O. may authorize a rum ration and then they would have. The smart and soldierly manner in which they carry out their duties is a constant inspiration.

As Winston Churchill says, "Never has so much been owed to so few by so many."

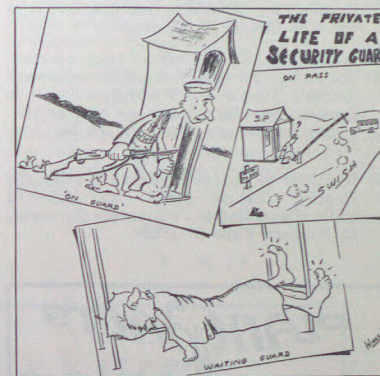
An Airman waiting in line for his dinner was heard to remark, "Never was so little waited for by so many for so long."

MEDICOS

Through wind and rain and heat and snow shall they serve. The "they" in this case being the Medical Services. Lately we have been dismembering ourselves, Martin and his pals going to Clarsholme, Sutton to Oshawa, and "Tight Pants" Roe to Edmonton. Also, we have lost a good AC/2 in Dick Rendie, who is now camouflaged with two stripes. Now that the "what is so rare" days are here, any person interested in water so odious will be positively astounded by the antics of those two water lilies, or I mean aquatic stars, Burford and Lumley, who have perfected a new swimming stroke called the St. Thomas crawl. It consists of dashing down to the water's edge, testing the temperature

of the water with the toe and if it is below 50° they shriek with delight, take the beer out of the water and dash back to their blanket.

Seriously though, these hotter days call forth from us a few words of warning regarding sunshine. Ultra-violet rays are like a woman's smile—they warm you from head to foot and if over-indulged in lead to serious consequences. Use discretion when sun bathing. Remember, sunburn is a self-inflicted wound and will receive no treatment at our hospital.



« DO YOU KNOW? »

That the new chapel, opposite No. 2 Guard Room, has been opened. This chapel is for the use of men desiring a place for meditation and prayer as well as for the regular mid-week services.

That the derivation of the term batman is most interesting? Apparently, a batman was one who looked after a bathhouse; a bathhouse was a horse carrying a bat; a bat was a form of pack saddle used for carrying baggage, usually an officer's baggage. Therefore, common usage developed the present meaning of batman, namely, one who looks after an officer's personal effects.

That while stamps are sold at the Station Library as a convenience to Airmen, the correct place to buy stamps is at the Station Post Office.

That telegrams may be sent from the Station Y.M.C.A. Office.

That the game of Bridge was introduced into Great Britain in 1886 under the name of Beritch or Russian Whist.

That the Librarian will be glad to have any suggestions concerning future additions to the books in the Library.

That the first function to be held in the new Recreation Hall will be the Corporals' Dance. The dance will be held the day the building is officially opened.

That the Padres are happy to discuss personal problems with Airmen. Padre Davies is an old friend but Padre Smeaton (R.C.) and Padre Roberts (O.D.) are new to the

Station and will be delighted to make the acquaintance of the men.

* * *

That Wellington and Nelson, the leaders of the British Army and Navy, respectively, in the Napoleonic Wars, met only once—in the waiting-room of the Colonial Office.

* * *

That Airmen desiring accommodation for their families are advised to communicate with the Y.W.C.A. in St. Thomas.

* * *

That the Active Service Club, at the corner of Queen's Avenue and Wellington Street in London, has dormitories as well as club rooms for the use of men in the Services.

* * *

That Matthew Webb, the first man to swim the English Channel (1875) was drowned while attempting to swim across the rapids at Niagara Falls in 1883.

* * *



This war's first bomb was dropped by the Germans at 5.20 A.M., September 1, 1939, on a little village in Poland called Puck.

* * *

On June 4, 1941, President Roosevelt signed a bill providing \$50.00 a month extra pay for United States parachute troops.

* * *

Our Winston Churchill used to fly a great deal and even did a bit of piloting in the days when every flight was an adventure. Once he had just left a seaplane in which he had been flying when it crashed, killing all three of its occupants. Mr. Churchill himself has survived a good many air crashes.

* * *

When Prime Minister Chamberlain signed the famous Munich Pact in September, 1938, London was protected by only 7 AA guns.

* * *

Kenneth B. Collings, intrepid American correspondent, who lost his life when the S.S. Nerissa was torpedoed a few weeks ago, was once flown out of the Central American jungles with a broken leg. The only way that they

could get him out was by strapping him to the wing of an airplane.

* * *

Lawrence Sperry, prominent in aviation in the early days and one of the gyroscope Sperrys, lost his life in 1923 needlessly. After his aircraft crashed between England and Belgium, Sperry deserted it, trying to swim to safety, and was lost. Later his plane was found still afloat.

* * *

It is a small world. Flight Captain Rene Wauthier, French aviator, battling a sandstorm far from civilization, over the Sahara desert, was almost run down by two planes roaring in the opposite direction. It was a purely accidental meeting. Later it was learned all three aircraft were forced down.

* * *

Guam Island, military and airplane base and United States strategic possession, is only forty miles from a similar Japanese base, Saipan Island, in the Pacific Ocean.

* * *

Elliott Falls, American flying student in Texas, nearly lived up to his name recently. His safety belt broke and he fell out of his inverted plane. Somehow he got stuck in the aircraft structure, and managed to crawl back into the cockpit.

* * *

Lieutenant-Colonel Albert W. Stevens, United States Air Corps, the man who has been higher than anyone else in the world, and world authority on aerial photography, once fell more than ten miles when his balloon exploded at a great height. Close to the ground he and his companion bailed out and were unharmed.

* * *

Alford J. Williams, United States navy pilot, racing flyer and exponent of the outside loop, is versatile. Williams, major, perhaps colonel now, was in 1914-15 a pitcher for the New York Giants major league baseball team. Also he is a world famous author.

* * *

Early air pioneers were called ballunatics and were considered more or less as psychopathic cases suffering from what was then known as aerophobia. Incidentally, there was actually a man who may well have been called a ballunatic. He was Henri Dupre, an inmate of a Pennsylvania asylum, who made a balloon in which to effect his escape. Dupre filled the balloon with gas and succeeded in floating over the walls of the institution to open fields and freedom. Later he was recaptured.

* * *

The destroying of an observation balloon seems easy and almost like poor sport. Actu-

ally it ranks with the most dangerous aerial operations.

* * *

Wilbur Wright, taciturn, practical, decidedly not fussy, worried about drinking water, fearing typhoid which his brother Orville had contracted in 1896. In spite of the fact that Wilbur Wright never drank anything but boiled water, he died of typhoid fever in 1912.

* * *

During the first world war, Lieutenant Waldo Heinrichs, of Boston, Mass., had his propellor shot off and collided with two German planes at 2,000 feet. The next thing he knew, he was lying in a muddy ditch, unhurt.

* * *

Harry Houdini, the late handcuff king and magician, was also an aviator, and the first person to fly an airplane in Australia.

* * *

United States aviators did not see much action in the first world war, but what they did see was all in their favor. 740 craft of different types were in action; 744 pilots and 450 observers. With this strength they accounted for 704 enemy planes. United States casualties were 187 lives lost; 239 machines; 133 airmen wounded and about 220 missing or prisoners. This works out at almost three to one effectiveness.

* * *

Lieutenant F. Trubee Davison, United States aviator, while in training for the first world war, broke his back in a crash. F. Trubee Davison later became United States Assistant Secretary of War.

* * *

The first President Roosevelt, Theodore, had a son, Quentin, who was a United States world war aviator. Quentin Roosevelt was shot down and buried by the Germans with full military honors.

ALL RANKS



REMEMBER - Never discuss military, naval or air matters in public or with any stranger, no matter to what nationality he or she may belong.

The enemy wants information about you, your unit, your destination. He will do his utmost to discover it.

Keep him in the dark. Gossip on military subjects is highly dangerous to the country, whereas secrecy leads to success.

BE ON YOUR GUARD and report any suspicious individual to your Squadron Commander or Civil Authorities.

TECHNICAL TOPICS

EXHAUST VALVES AND VALVE SEAT INSERTS—GENERAL CONSIDERATIONS

The exhaust valve is undoubtedly the most vulnerable part of an engine, because it must perform well at elevated temperatures, *i.e.*, around 800° C., without undue scaling or becoming mechanically weakened and, in addition, remaining gas tight.

In the case of an exhaust valve which works in the presence of leaded fuel, a hard, black, polished and adherent skin generally appears to form on the seat surface in the early stages of running. It is not yet clear whether this skin is a lead product deposited on the seat surface, or is a result of corrosion attack of the seat material itself. One is, however, inclined to the former theory, that it is in the nature of a glaze, since it has also been found on valves which have operated successfully for long periods.

The thickness of the glaze or skin varies somewhat and is difficult to assess accurately, but, from photomicrographs, appears to be in the region of 0.0003 inch with a thickness of about 0.002 inch or more, near the edge of the seat. In cases where the skin has been found on valves which have operated successfully for long periods it is of even thickness with an unbroken surface. In the case of a failure (valve burning), the trouble seems to start when the skin or glaze breaks down. This may be due to a variety of causes; in the first place, any irregularities of the seat surfaces of the valve and insert, if the latter are not machined and finished to a high degree of accuracy, will possibly give rise to a skin formation of uneven depth at various points on the valve seat. Cracking and flaking of the skin will then result, causing, in effect, local pitting and finally "guttering." Secondly, due to the high expansion characteristics of austenitic steels and/or the shape of the valve head, the consequent stressing of the skin, due to expansion and contraction of the valve, may cause the former to crack or flake, and in doing so bring about overheating of the valve because of reduced thermal contact, again giving rise to pitting and burning and also rendering it liable to lead bromide attack.

The degree by which the exhaust valve, when in operation, may or may not be attacked

by lead bromide is mainly controlled by its working temperature and the material used in its construction.

It is the experience in England, and one believes in America, that a combination of low working temperatures for the valve with a given material may cause little or no trouble. However, an increase in working temperature may give rise to valve troubles, due to failure of the material to withstand, at the increased temperature, the lead bromide attack, and it will then scale and perhaps burn.

To eliminate these troubles at the outset, the broad principle is to ensure by suitable design that the working temperature of the exhaust valve will be kept to an absolute minimum, consistent with the maximum power output expected from the engine. A valve material should then be chosen which, in addition to high mechanical strength and durability at elevated temperatures, etc., should have a high resistance to attack by the exhaust products, particularly lead bromide.

Firstly, take the question of working temperature; the problem is to get rid of the heat in the exhaust valve head by suitable methods. One of the main routes for the dissipation of the heat is via the valve seat to the seating in the cylinder, when the valve is at rest during the normal operational cycle. The "heat dissipation capacity" of the valve seatings must therefore be good.

The experience gained in England, and in Europe, seems to indicate that the valve seatings in the cylinders themselves (these have usually taken the form of rings of some material such as aluminium bronze, which are inserted into recesses made at the combustion chamber end of the exhaust port or ports) exercise a considerable influence upon the condition of the seat of the valve itself and therefore the life and behaviour of the latter.

In this connection, it is interesting to note that the question of the conductivity factor of the seat insert material appears to be of secondary importance, provided that the coefficient of expansion of the material is as near as possible to that of the cylinder head material in which the insert is fitted and the method of fitting is satisfactory, *i.e.*, good thermal contact maintained. Its capacity for getting rid of heat is much greater than the amount of heat which the valve can give up to it.

The important features which a valve seat insert should possess are a high resistance to corrosion attack and good surface hardness, or, in any case, toughness. One would prefer "hardness" to "toughness" either of the insert or the valve seat or both, if possible. Corrosion resistance appears to be the principal answer to valve burning troubles and, in addition, the provision of a hardened surface in one or both cases seems to prevent abrasion of the surfaces by any scale which becomes detached from the valve head and which may be temporarily trapped between the valve seat and insert, tending to spoil the thermal contact between them. This raises the working temperature of the former and may eventually cause "blow past" of the gases when the valve should normally be closed, finally leading to valve burning or "guttering." Due to the increased temperature, further scale will be formed on the head of the valve; the trouble then becomes accumulative and it has been known to lead to pre-ignition, owing to the scale on the valve head becoming incandescent. A corrosion resistant and hard, or very tough, insert will go a long way towards preventing a valve from burning, because its surface remains unimpaired under the conditions described above, and this tends to keep the valve seat surface in good trim.

The power developed per exhaust valve of the modern aviation engine is considerable and production engines are now in operation developing 80 b.h.p. per valve. In some cases this figure is exceeded. It may be of interest to record here that the figure reached for the Rolls-Royce "R" engine, produced for the Schneider Trophy Contest and the World Air Speed Record for 1931, was about 116 b.h.p. per valve.

The rate of development of the modern aviation engine is such that great difficulty is being experienced in keeping the exhaust valve temperature within reasonable limits. It has been apparent that, however efficient the design of the valves and inserts, it is difficult, if not impossible, to get rid of the heat adequately in this manner. Obviously, the hotter the exhaust valve the more limited are the capabilities of the engine with fuels of given octane value.

This had led to the development of the internally cooled valve. The internally cooled valve is a valve having a hollow stem and sometimes head, partially filled with a medium which will efficiently transfer some of the heat from the valve head to the cooling medium of the engine (air or liquid) via the valve stem and guide. The filled valve stem is hermetically sealed.

Such valves were thought of many years ago at the R. A. E., Farnborough, England, but were discarded after a certain amount of

experimentation. It is understood that the cooling mediums then tried were water and mercury.

The use of water in a sealed valve stem was most unsatisfactory and at working temperatures high internal pressures were set up, causing swollen and often burst valves.

This type of valve was revived by one S. D. Heron, an Englishman, who was working in America, but who had been associated with the original development at the R. A. E. Heron, however, discarded the liquids referred to above and tried mixtures of salts.

In the first place, he made up a eutectic mixture of potassium and lithium nitrates and partially filled the hollow stem of the valve with the mixture, afterwards sealing up the stem.

The use of these salts, although bringing about great improvement in the valve condition, was not, however, entirely satisfactory, due to the fact that their employment sometimes subjected the valves to high internal pressures. The cause of these high pressures was that the mixture had a low thermal conductivity which meant that the engine, on starting, warmed up the valve head and melted the salt mixture locally and the rest of the salt column in the stem remained "frozen" or solid, with the result that very high pressures were generated by the already melted salts, causing swelling and cracking of the valve stems.

After some investigation the employment of the eutectic salt mixture was discontinued and its place taken by metallic sodium. Sodium has many advantages over the salt mixture as a filling and cooling medium for this type of valve. It (sodium), unlike the salt mixture, has little or no mechanical strength and therefore does not give rise to stresses in the valves when it is melting. The melting point of sodium is relatively low and its thermal conductivity is high, being in the order of nine times that of the austenitic steels. This latter feature means that, upon heating, the column will melt almost at once throughout its whole length. Sodium has good "wetting" properties which are important in order to "pick up" or "collect" the heat from the surfaces of the valve.

Below are given some details of sodium and a eutectic mixture of potassium and lithium nitrates.

	SODIUM	EUTECTIC
Melting point °C.....	97.5 (207.5° F.)	129.4 (265.0° F.)
Boiling point °C.....	880 (1616.0° F.)	—*
Heat equivalent of fusion cal. per gm.	31.7	55†
Specific gravity.....	0.97	2.2

*Potassium Nitrate decomposes at 399° C. (750° F.)
†Approximate.

SOME NOTES AND GENERAL INFORMATION ON THE VALVE AND INSERT DESIGN, CONSTRUCTION, AND FITTING

The following information deals solely with the sodium-cooled valve and steel insert because it is felt that this combination is a direct line of development to pursue immediately, to ensure the future success of the high duty engine in conjunction with high duty fuels.

Valves

In Fig. 1 sketches are shown of the sections of two sodium-cooled valves differing in design.

(a) Shows a type of sodium-cooled valve developed in America. The hollow forged head should be noted, together with the swagged-in hollow plug or thimble at the stem end. The latter is to prevent excess heat from travelling up to the stem end, upon which the valve rockers operate, particularly in the case of the partially lubricated valve gears of air-cooled engines, where there is a risk of excessive heat getting to the valve springs and softening them.

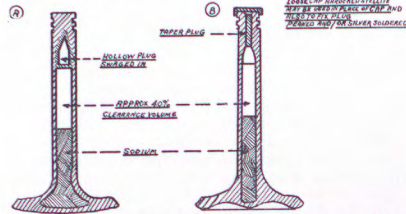
(b) Gives a sketch of a similar valve with a hollow stem only and it shows a different method of plugging which is also in use. The taper plug is pushed in and the material peened over it at the stem end. A loose, hardened cap is then fitted over the stem end, or a hardened tungsten steel button welded on. Quite a good idea is to "stellite" over the stem end and this will ensure that the plugging remains tight and it provides something of suitable hardness on which the rockers can operate directly.

The valve head design is interesting, and it should be noted that in one case, (b), the section of the material at the valve seat is in the form of a rim. If "blow past" occurs at a particular point around the rim, the valve at this point tends to become overheated, but if it is of suitable dimensions or section, the rim allows the excess heat at the point of "blow past" to be carried around it, thus preventing local overheating. It also causes the rim to expand, tending to reseal the valve at this point.

This valve is of the modified tulip type. The full tulip head is not desirable since, due to its greater exposed surface, it usually runs hotter than the other types and in any case the sodium is generally too far removed from effective contact with most of the head material.

The most effective valve seat angle is one of 30°. This gives a better average valve opening characteristic than, say, one of 45°, but it is more difficult to ensure maintaining a satisfactory seating with this than with one to the latter angle, and perhaps in the case of an

exhaust valve particularly, it is more important to ensure that the valve seats itself efficiently rather than to attempt to benefit by the small increase in porting efficiency offered by the former angle.



Two Typical Examples of Sodium-Filled Valves

Figure 1

The amount of sodium put into a valve is approximately 60 per cent of the total internal volume of the valve after an allowance has been made for plugging. In other words, after plugging, a clearance volume of about 40 per cent should be provided.

The method of filling the valve with sodium is not usually disclosed by the valve manufacturers, but one can give a general procedure, which is as follows: The valve is heated to about 400° C.; this drives out any traces of moisture, with which sodium is highly reactive. In the meantime, the required amount of sodium (to occupy 60 per cent of the final internal volume) is weighed out and kneaded into lengths of small diameter, like spaghetti. This is then introduced into the heated valve stem. A special sodium extrusion gun is sometimes used, which meters the required quantity into the valve. In the case of the large valve with the thimble type hollow plug, the sodium is usually extruded in the form of a large slug. This is placed in the valve, the thimble is driven in and the valve tip is then heated and swagged in. In all cases, after filling, the stems should be sealed white hot, so that there is as little air as possible left inside to cause oxidation.

The stage of manufacture reached before filling the valve generally depends upon the valve material and the method of plugging adopted, and it may be necessary to carry out heat treatment after filling and plugging. This can safely be done in the case of sodium-filled valves.

Exhaust valves of large diameter are now being produced with hollow heads in order to take as much heat away as possible. The smaller valves, particularly those in liquid-cooled engines, are at the moment keeping to the hollow stem only, but as the specific power

outputs rise, the hollow valve head is almost bound to be employed.

Due to the difficulty of ensuring accuracy of the section of the material in these forged hollow-head valves, another method of manufacture has been tried with some success. In this method a valve forging is accurately machined out internally, open at the head and stem ends. This serves two purposes: in the first place the valve may be completely inspected internally and, secondly, it can be designed so that the sodium is brought very close to the valve seat itself to assist in carrying away the heat immediate to the seat, instead of, as in the normal hollow head, the sodium being rather locally placed about the centre of the valve head with a fair thickness of material between it and the seat.

After the valve has been machined internally, a disc of the same material as the valve is pressed into place, to form the valve head, and fixed by "stellite" and/or swaging. The valve is then filled with sodium from the stem end, after which the latter is plugged in the normal manner.

This method of manufacture makes for a lighter valve than the completely forged job, and low weight is important in these days of high engine speeds.

It does not seem to affect the efficiency of a sodium-cooled valve if it works in the normal attitude in an engine, or inverted, as in the lower cylinders of a radial or an inverted "in line" engine. The sodium very quickly liquefies and gets well "joggled" by the movement of the valve.

The question regarding the most satisfactory width of valve seat to employ is a vexed one. For some time the American engine firms have favored a relatively wide seat, and in some cases the seat widths have been, in one's opinion, excessive. The tendency in the States now appears to be towards a narrower seat, particularly for engines of high specific power output, using fuels containing lead.

The seat widths of some typical American valves range from $\frac{7}{32}$ inch to $\frac{1}{4}$ inch for a large valve having a seat diameter of about 3 inches, and from $\frac{1}{8}$ inch to $\frac{3}{16}$ inch for valves of 1.75 inches to 2.00 inches seat diameter. The British engines generally keep to the lower limits of the widths mentioned, and in some cases are only half the width, in proportion.

The primary reasons for using a large seat width are: Firstly, that it should allow for a greater rapidity of heat dissipation to the insert, while the valve is at rest, thus tending to keep the latter cooler and, secondly, prevent

"hammering" and "pick up" between the valve and insert. Particularly if the valve is of austenitic steel and is also running fairly hot, and if inserts of aluminium bronze are fitted.

The foregoing reasons and theories are quite sound, but it is also important to obtain good thermal contact between the seat surfaces, and to do so often necessitates a fairly high unit loading of the seats. To achieve this there are two alternatives: one is to decrease the seat width somewhat, and the other to increase the valve spring strength. The latter is obviously a retrograde step, and unless an increase in the operational speed of the engine is desired, which may necessitate increased spring strength, this alternative cannot be contemplated. One hesitates, therefore, to speak of "wide" or "narrow" seats as such, and considers that the question of width is really a compromise which is controlled by the consideration of individual engine design. Satisfactory unit loading, to achieve good thermal contact, should be considered of primary importance.

There are no figures to put forward for the unit loading of valve seats, and little would be gained by so doing, since the best compromise would eventually have to be found by the individual engine builders to suit their particular engines, and this, again, would be affected by the materials used. There is a risk, if the seat is very narrow, that any "blow past" which may occur will cause "guttering" right across the seat, whereas with a wider seat, under similar conditions, it usually takes longer for this to occur, and it may only show up in the form of pitting.

It will be appreciated, therefore, that it is unwise to dogmatize on matters such as the foregoing.

Many valve troubles are occasioned by distortion of the cylinder head. This is particularly liable in the case of the monobloc arrangement used for the large modern liquid-cooled engines, and it has also been the cause of a large amount of trouble in some ordinary motor car engines.

The stresses due to heating and consequent expansion of the aluminium cylinder head, jacket and crankcase castings of large liquid-cooled aviation engines must be considerable. The accompanying distortion, so far as it may affect the valves, generally causes misalignment between the valve guides, and inserts, or actual "ovalizing" of the latter, both of which prevent the valves from seating properly and cause valve burning. Distortion is very difficult to detect or control, but if valve burning is experienced, this possibility should be the first to be investigated. The effect of distortion may be

treated, for a cure, in a number of ways, such as stiffening up the inserts and designing a valve having a head which will tend to adapt itself to any distortion or "ovalizing" of the insert. A valve of similar design to that shown in Fig. 1(b) is suitable, with, if necessary, a much more pronounced rim. In other words, the rim of the valve and the insert should be regarded as two concentric rings, and the rest of the valve head connected to the rim designed to achieve this effect.

Distortion effect could also be met by employing a "stellited" surface against a softer or "unstellited" surface. Two surfaces, both "unstellited," such as a valve of K. E. 965 and an insert of N. M. C., also provide a very satisfactory combination.

The valve steels mentioned in the foregoing pages are of the austenitic variety and are well-known steels from recognized makers. These are to be recommended for use in modern aviation engines. Silchrome steel of the so-called No. 1 grade is a very excellent material as regards resistance to corrosion and scaling. Its mechanical strength when hot is not so good as that of the austenitics, but when sodium-cooled, a high degree of strength can be retained without making an unduly heavy valve; however, one would recommend it for automobile engines of normal performance rather than for aviation engines. The thermal conductivity of a silchrome steel is superior to that of the high nickel/chromium variety.

Finally, the design of the valve guide for a sodium-cooled valve is very important, because the stem has to deal with extra heat to normal and unless it can get rid of it to the cooling medium in an efficient manner a high degree of guide wear will result, causing progressive overheating of the valve stem as the wear increases. Therefore, attention should be paid, in the design stages, to the adequate provision of fining, etc., at or about the exhaust port and guide, in the case of the air-cooled engine, and ensure that the guide has more or less direct contact with the coolant, in the case of the liquid-cooled engine. Also, experimental running should be done in order to arrive at correct clearances between the valve stems and the guides.

The valve guide materials can be similar to those normally used, such as aluminium bronze. Adequate provisions for lubrication must be provided.

Inserts

Fig. 2 gives rough sketches of different types of inserts and the methods of fitting them.

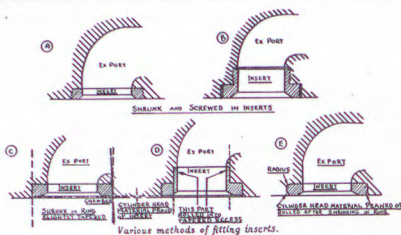


Figure 2

The screwed insert is in general use in England, whereas in America the plain type is practically universal.

Purely as a matter of personal preference one favors the American method of shrink fitting a plain ring, and considers that it has adequate surface area, on its side and base, to obtain good thermal contact with the cylinder head material.

The prevailing British method of screwing in the inserts does not, on first considerations, seem to be so satisfactory, but it is rather difficult to dogmatize on such a point of individual design. In the first place it is very difficult to ensure accurate cutting of the thread of good profile in aluminum, and secondly, having screwed the seat home, it tends to bear hard on one side of the thread only and loses the benefit of good thermal contact over what would at first appear a large surface offered by the threads.

In the case of liquid-cooled engines it does not seem to matter so much whether the inserts are shrunk screwed or shrunk in only. In fact, it is probably difficult to shrink satisfactorily at any appreciable temperature, in the case of a monobloc casting, because of its relatively complicated design. For the cylinder heads of large air-cooled engines, however, there is now generally little trouble in this respect, particularly in the case of forgings, and it is quite usual to take them up to 300° C. or 400° C. before fitting the inserts.

An important point in this connection is to ensure that the section of the material surrounding the insert recess is such that the stressing is reasonably uniform when the cylinder head is heated or cooled, either during the process of fitting the inserts or under working conditions. This is, naturally, a question of design, which, in addition, should provide a firm bed in which the insert is to rest.

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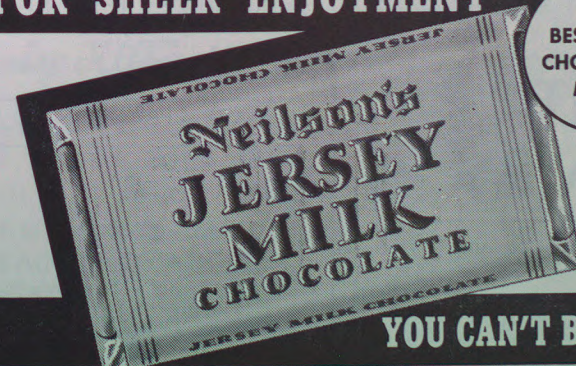
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12.05 p.m.	7.15 p.m.	11.45 a.m.
(Only)	7.30 p.m.	(Only)
1.15 p.m.	7.45 p.m.	1.00 p.m.
1.45 p.m.	8.00 p.m.	1.30 p.m.
2.15 p.m.	8.15 p.m.	2.00 p.m.
2.45 p.m.	8.45 p.m.	2.30 p.m.
3.15 p.m.	10.00 p.m.	3.00 p.m.
3.45 p.m.	10.15 p.m.	3.30 p.m.
4.15 p.m.	10.30 p.m.	4.00 p.m.
4.40 p.m.	10.45 p.m.	4.15 p.m.
5.00 p.m.	11.00 p.m.	4.45 p.m.
5.15 p.m.	11.15 p.m.	5.00 p.m.
5.30 p.m.	11.30 p.m.	5.15 p.m.
5.45 p.m.	11.45 p.m.	5.30 p.m.
6.00 p.m.	12.00 p.m.	5.45 p.m.
6.15 p.m.	1.00 a.m.	6.00 p.m.
		6.15 p.m.

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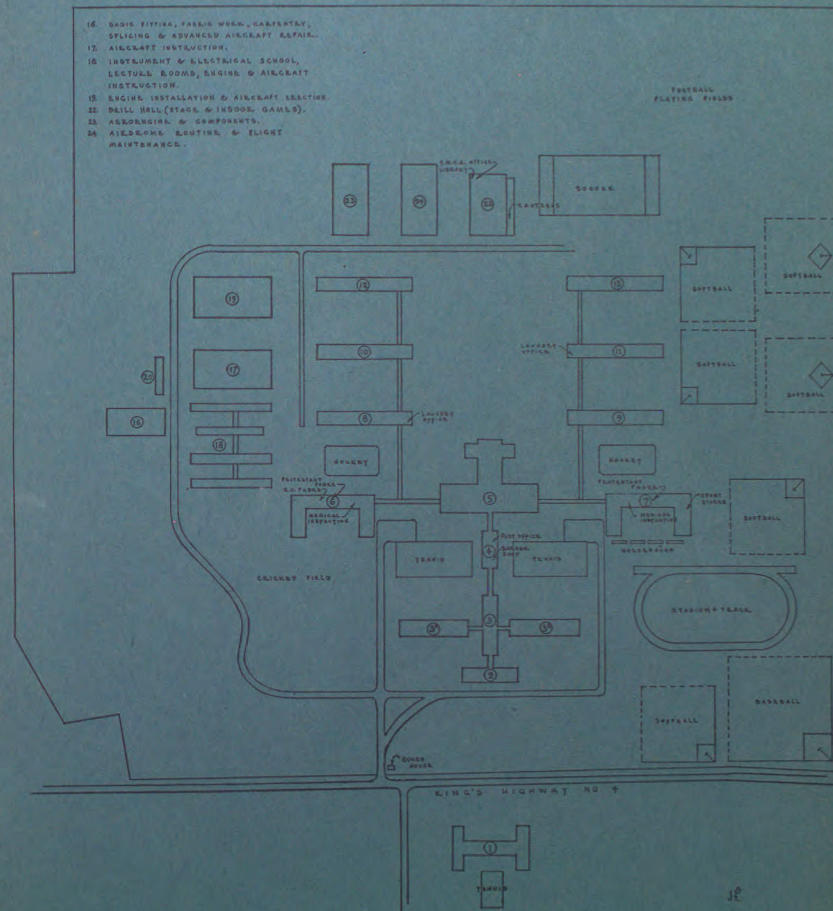


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