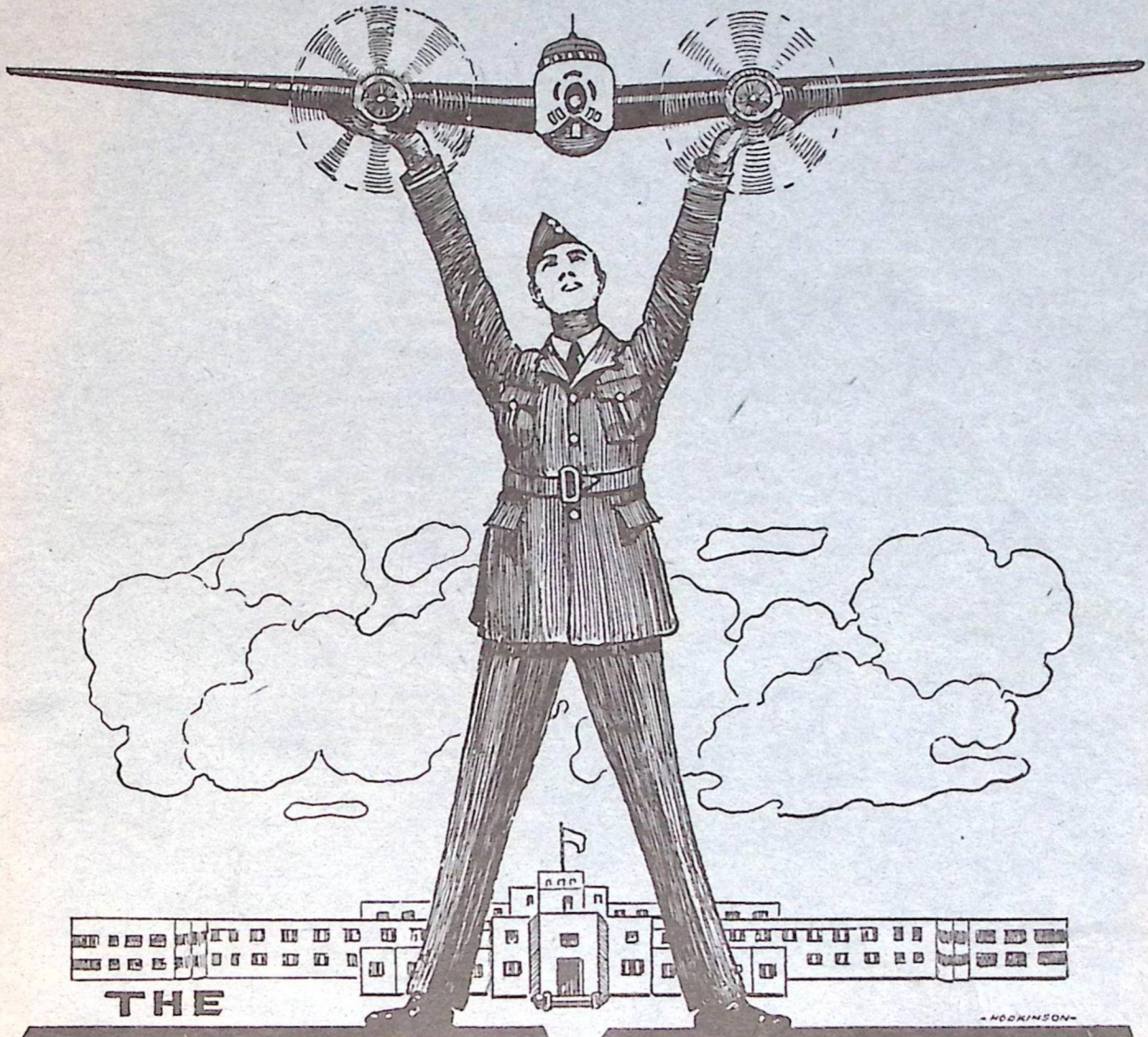


THE *Aircraftman*

VOL. 2 - NO. 7

FEBRUARY 1942



THE
TECHNICAL TRAINING
ST. THOMAS **SCHOOL** ONTARIO

STATION COMMITTEES

* * *

Officers' Mess

S/Ldr C. S. Wilson (P.M.C.)
S/Ldr A. G. Vince
F/Lt E. D. Armour
F/Lt W. L. Marshall (Secretary)
F/O W. H. Pooler

Sergeants' Mess

S/Ldr N. McLeod (Officer in Charge)
WO/1 J. O. Clarke (Chairman)
WO/2 Ard (President)
F/Sgt Barnard (Secretary-Treasurer)
Two Members

Corporals' Mess

S/Ldr H. N. C. Williams (Officer in Charge)
Cpl. Campbell (Chairman)
Cpl. Weaver (President)
Cpl. Sawyer (Secretary-Treasurer)
Two Members

Airmen's Mess

S/Ldr N. McLeod (President)
F/O R. K. Armstrong
F/O W. H. Pooler (Secretary)
F/O A. R. Little, 1 Wing
F/O E. Hendry, 2 Wing
Airmen representatives 1 Wing, 2 Wing,
E. & A.T.S., H.Q. Squadron.

Canteen

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

Sports

F/O G. H. Ross (President)
F/O J. M. Harris (Treasurer)
F/Lt E. E. Aldersley
F/O R. K. Armstrong
F/O E. Hendry
F/O A. R. Little
WO/2 H. H. Netzell
F/Sgt. S. E. Bryant
F/Sgt. J. Maybie
Sgt. Goodmanson
S. M. McLennan, Y.M.C.A. (Secretary)

Entertainment

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F/O E. Hendry
Sid. McLennan (Secretary)

Recreation Hall Committee

F/O W. E. Cayley (President)
F/O H. G. Plumbridge (Secretary-Treasurer)
F/O A. R. Little

P. S. I.

S/Ldr N. McLeod (President)
S/Ldr H. N. C. Williams
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F/Lt W. L. Marshall (Secretary)

Awards

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S/Ldr A. G. Vince
F/Lt M. C. Davies
F/O J. T. L. Lowe
F/O H. G. Plumbridge
Sid. McLennan (Secretary)

Welfare

F/Lt M. C. Davies (President)
F/Lt H. F. O. Smeaton
F/Lt H. Cotton
F/Lt W. Surman
R. C. Good, Y.M.C.A. (Secretary)

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F/O R. K. Armstrong (Secretary)
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O.C. No. 2 Wing
Mr. McLachlan (Station Engineer)

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W/C J. H. Keens, A.F.C.
S/Ldr A. G. Vince (Secretary)
S/Ldr C. H. Hall (Treasurer)

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F/Lt W. G. Cooke, No. 1 Wing
F/Lt J. E. Corrigan, E. & A.T.S.
F/O R. K. Armstrong, O.C. H. Q. Squadron
F/O G. H. Ross, No. 1 Squadron, 1 Wing
F/O A. R. Little, No. 2 Squadron, 1 Wing
F/O J. M. Harris, No. 3 Squadron, 1 Wing
F/O J. E. Boyes, No. 1 Squadron, 2 Wing
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F/O D. Kerr, 3 Squadron, 2 Wing
F/O H. F. Morris, E. & A.T.S.
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Two Airmen representatives

Use This Page — Familiarize Yourself With Your Committees

VALENTINE CARDS on VALENTINE'S DAY

Saturday, February 14th

Don't forget to send a card to . . . Friend, Mother,
Sweetheart, Sister, Cousin and Aunt.

Valentine Greetings

*Some were kinda hi-fallutin',
Some too gusby to be suitin',
Some too serious, some too funny,
(Some just cost too darned much money!)
But this one just hit the spot
'Cause it says, "I like you a lot!"*

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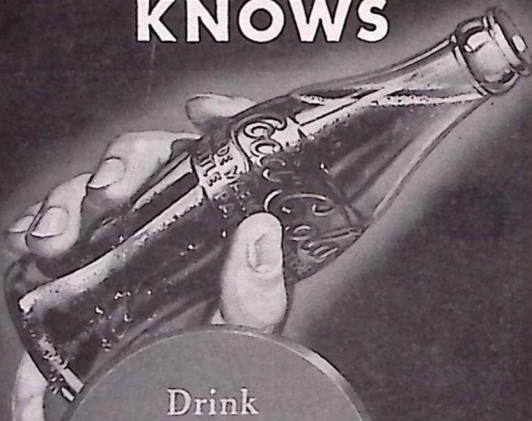
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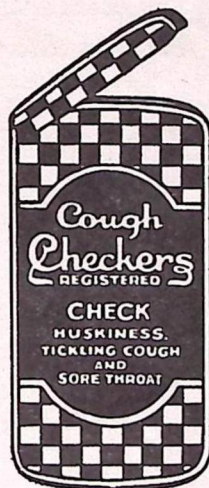
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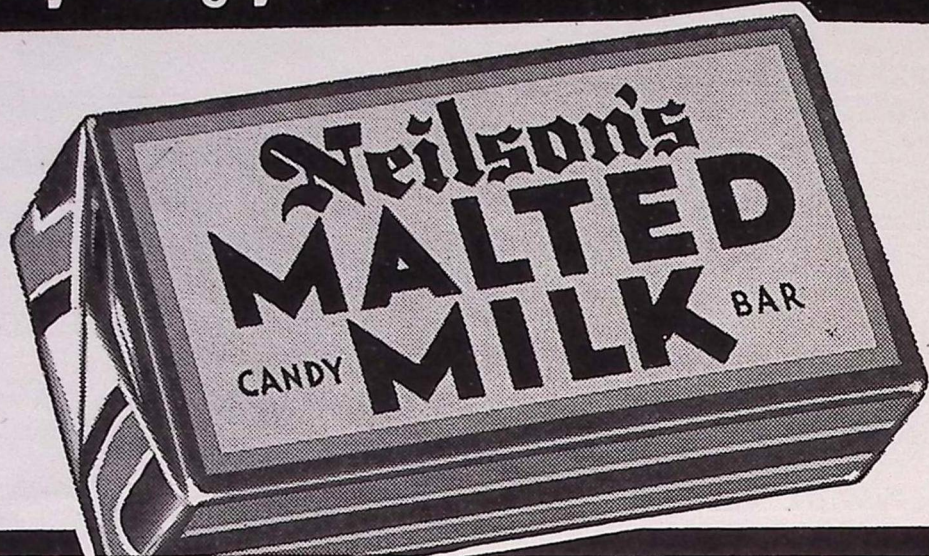
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MONDAY, FEBRUARY 16

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THE AIRCRAFTMAN

A Magazine of the R. C. A. F. Technical Training School
Published Monthly at St. Thomas

VOL. 2 - FEBRUARY 1942 - NO. 7



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F/Lt H. F. D. Smeaton (R. C. Padre) - F/Lt H. Cotton (Prot. Padre)
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Sq. 2 - AC/2 Scott, E. H.
Sq. 3 - Cpl. Jorgenson, G. E.
E. & A. T. S. - WO/2 King, H. G.

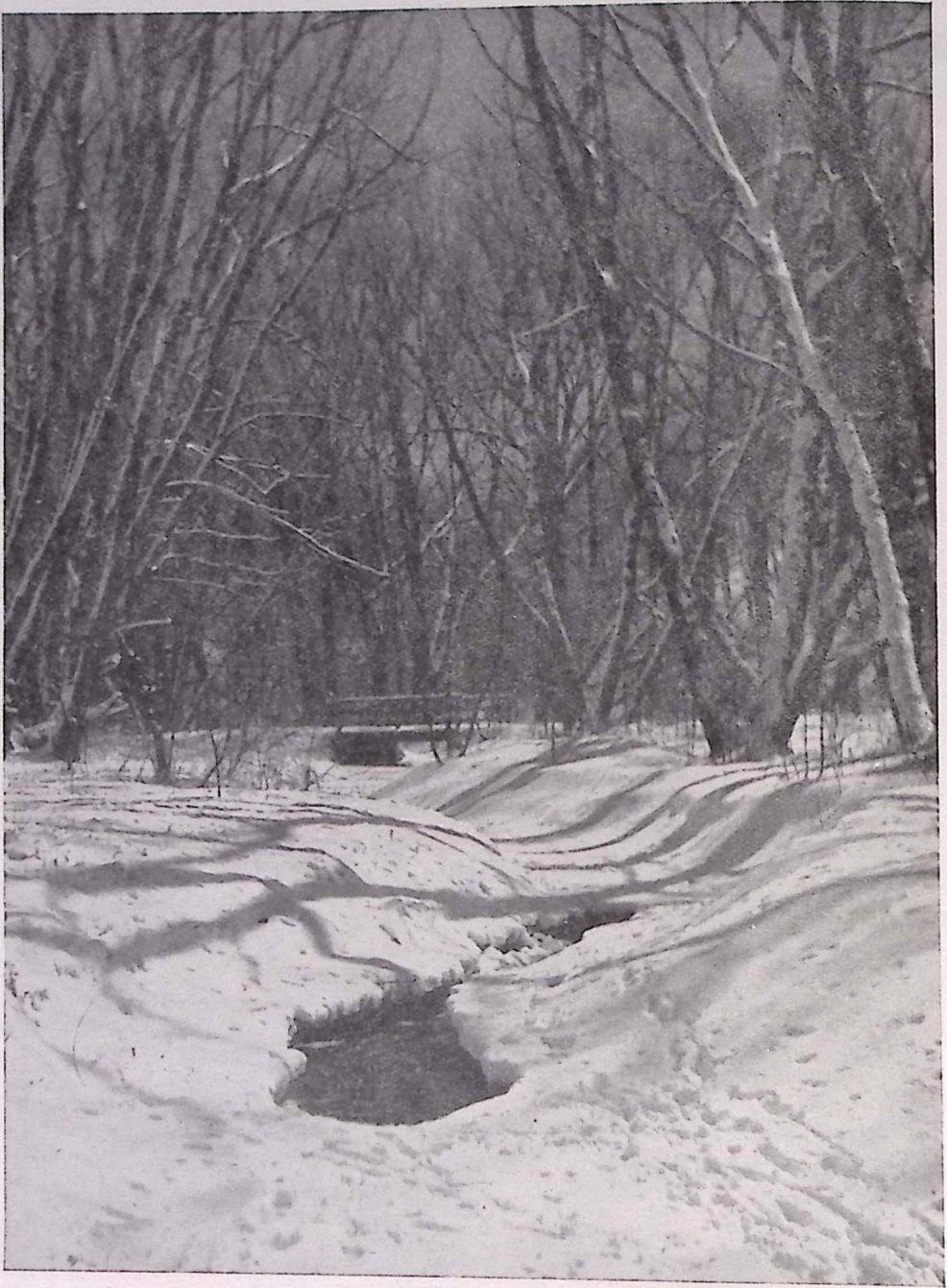
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Subscription Rate is \$1.00 a Year - 50c for Six Months - 25c for Three Months.
Mail Subscriptions to F/Lt Davies, M. C.

TWELVE THINGS TO REMEMBER

The Value of Time
The Success of Perseverance
The Pleasure of Working
The Dignity of Simplicity
The Worth of Character
The Power of Kindness
The Influence of Example
The Obligations of Duty
The Wisdom of Economy
The Improvement of Talent
The Virtue of Patience
The Joy of Originating.



In Rosedale Ravine

F/Lt P. S. A. Morton

« « EDITORIALS » »

During the last few weeks the theme of the newspapers, magazines and radio and of our national advertising seems to outline one feature; that is, total war effort. We somehow compare the last two years and part of the future to a hundred-yard handicap race. Prior to the outbreak of war the Axis powers were preparing and taking their own handicaps. England, who has always displayed sportsmanship in the past, was again playing the leading role in this respect. If this race was to start, she was quite willing to start from scratch. Finally, the starting gun was sounded and for the past two years England and the British Commonwealth of Nations, with their Allies, have strained to overtake the handicap the Axis powers had and we feel that today we are running neck and neck. We have hit our stride; we must prepare for the approaching all-out victory finish. Nothing short of a champion effort will succeed. What are we doing as individuals towards this final effort? You who are graduating from T. T. S., who prepare yourselves to "keep them flying," are without question the finest Airmen in the world, and we unhesitatingly say that our entire staff is proud to be connected with this splendid school, and we have every intention of adding our little part to this "all-out victory finish."

* * *

THE NEW PHOTOGRAPHY

Having dealt with all the technicalities you need know for the present, we now pass on to the actual taking of photographs — to hints, and tips, on lighting and composition, and to the many other little details which all help make your pictures better ones. Later on we will discuss developing, printing, and enlarging — no amateur has the right to call himself a photographer unless he "does them himself," and apart from that you will really get twice as much fun from your hobby if you do your own processing. After all, photography is fun, and there's no reason why you shouldn't get as much as you can out of it. Terrible things ought to be done to those dreadful people who class themselves as "serious" photographers.

As I pointed out some time ago, technical knowledge alone, no matter how much you have acquired, will not make you a good photographer. You must have "vision," the third of my so-called secrets of successful photography.

The first thing you must realize is that your final picture will be black and white, not as you see it in front of you, in full color (unless you are one of those fortunates who are so disgustingly rich that you can afford to shoot everything in Kodachrome). So the first quality you must acquire is the ability to look at your subject — not as you see it, but in terms of black and white. Try to visualize it as it will appear in your print, paying attention only to the shape and composition of things, while ignoring the colors. So many amateurs are deceived into taking pictures of spring scenes, gardens, and flowers, which are so pleasing to the eye, but make such disappointing photographs.

Many professionals use a small piece of blue glass to view their subject through before making an exposure. The blue glass has the effect of destroying most of the color values, and you will probably find it a help to use some also. So do not take a photograph merely because of your subject's beautiful colors — your camera is a cynic, and is absolutely unaffected by this type of beauty. One of the most photogenic subjects it is possible to find is undoubtedly a snowscape. Here Nature has provided you with an almost perfect monochrome subject — a practically black and white original — which reveals harmony and beauty in its form, and, without any special effort on your part, leaves you only to compose your picture and unhesitatingly release the shutter. Too many people let their cameras hibernate during the winter, but our winter season will give you a golden opportunity to capture some really beautiful snow scenes, so make the most of it — any personal discomfort will be amply repaid I am sure.

In spite of the fact that I have seen many beautiful photographs taken, for example, on a foggy day, and although I leave myself open to criticism, I still maintain that ninety per cent. of successful photographs are taken in sunshine. I am not saying that one cannot take pictures on a dull day (in fact, modern emulsions permit photography under lighting conditions that not so many years ago would have been deemed impossible) but I am saying that to create a successful picture without the sun demands genius — not from a technical point of view — but in choosing, or being lucky enough in finding, the ideal subject. How often have we taken a trip to some well-known beauty spot, and on our return been disappointed with

our shots, because it had been a dull day, and the grey sky has given an aspect of sadness and monotony to everything?

And how often has even the simplest scene acquired a new charm at a sudden burst of sunshine! The sun, therefore, can change the whole appearance — from a photographic point of view — of objects around us. Not that a lovely face doesn't remain beautiful on a dull day — but in landscapes, and out-of-door scenes, the absence of sun can have a devastating effect. Therein we have an almost indispensable factor — the sun — to give relief and perspective to our pictures. You'll find the sun most willing to co-operate, and your joint efforts will quickly spell success. But it is first necessary that you know your partner's abilities

The old idea was to always have the sun behind you, but nowadays we realize that that is about the worst possible place you could have it, because it gives you a flat lighting that loses all relief — your picture really looks two-dimensional, the subjects do not stand out, and the shadows that are cast are too few to render the effect of a sunny day. Therefore learn to place the sun either to your right or to your left — preferably at an angle of 90° — so that you will get strong modelling and relief, and your picture will lose that flatness and have an almost third-dimensional appearance. In the old days one was always told never have the sun facing into the lens (and for those times it was a wise saying) but in this day and age, when lens hoods are a commonplace accessory, some really unusual effects can be obtained by shooting directly into the sun. If the sun is almost directly facing us we obtain an oblique backlighting effect, where the edges of our subjects are outlined by a thin line of light. Incidentally, this is the best lighting to use for snow scenes because it not only gives the snow "texture," but makes each individual crystal sparkle.

Direct backlighting, although it requires a careful technique and offers many pitfalls to the beginner, can be very useful, and it is well worth having a few disappointments to be able to employ it successfully when the occasion arises. Silhouettes can easily be obtained by shooting directly into the sun. Choose something simple to begin with, using a sky for the background, and expose only for the sky (thereby deliberately under-exposing your subject, which will appear black in your final print). A lens hood is an absolute necessity, of course, to shield your lens from the sun, so don't forget it.

Avoid taking pictures at noon, when the sun is at its peak, and casts short, opaque shadows. The best time for taking pictures is early in the morning or in the evening when the sun will

give you long transparent shadows. Expose always for the darker portions of your picture as well as for the highlights, so that details are discernible even in the shadows. Except in silhouettes, never have dense black masses in your photographs. Don't ignore the shadows in your pictures — not only do they give relief, but when transparent may often be themselves the subject of your photograph. "Sunday Evening," which appeared in the August-September issue of this magazine, depended on shadows for its success, and without them the whole theme of the photograph would have been lost.

So, finally, pay attention to the direction of the light; note the shadow formations — if they are beautiful they will add considerably to the charm of your picture; and remember that if you want success the chances are that you must have sun.

GEORGE C. WARD

In "Wings" Magazine, #31 B. & G. School, Picton.

* * *

Say, Pal, Can You Spare a Smoke?

Some day we who read this hope to be overseas. When we are there we will enjoy a smoke with added pleasure because we were at T.T.S. when the Smokes Fund for Airmen Overseas was established. The method will be simple. Here and there—in the Canteen, in the Recreation Hall, the Library and at other convenient places, boxes will be placed, and if you have any spare pennies you may place them in the box. Every cent so given will be used for the purchase of cigarettes for the Air Force overseas. The fund will be administered through the Welfare Committee of the Station. Three cigarettes for a penny for the men of the R.C.A.F. overseas. Let's keep them well supplied from T.T.S.

* * *

THE LESSON

If others sadly bring to me
A lesson hard and new,
I often find that helping them
Has made me learn it, too;
Or, had I learnt it long before,
My toil is overpaid,
If so one tearful eye may see
One lesson plainer made.

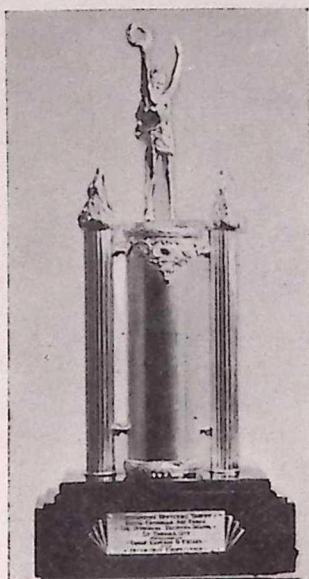
* * *

"I cannot leave my farm altogether, but my wife and I could put in twelve hours a day between us on the lathe!" says Mr. Boucher of New Brunswick in a letter to the Government offering to turn his farm into a miniature munitions factory. Patriotism personified! Go to it, Canada!

—"Wings Abroad."

« « SPORTS » »

**COMMANDING OFFICER'S
TROPHY**



Competition has rarely been keener than in January. Actually at the time of writing it is impossible to state who is the winner. When the final result is known it is likely that only two points will separate the winning Squadron from the one taking second place. No. 1 Squadron, 1 Wing and No. 1 Squadron, 2 Wing are the close contenders, with Headquarters (last month's winner) taking third place.

* * *

Volleyball

In Volleyball, No. 1 Squadron, 2 Wing repeated to win, but it was not easy as they were only 3 points ahead of No. 1 Squadron, 1 Wing (who only lost one game). This makes the fourth (at least) straight month for them. We thought that when they lost AC Brownell (captain) last month, as well as one or two others, that the team might be weakened, but they were able to get recruits and build up a powerful team. Cpl. Harwood and his stalwarts are to be congratulated on some fine performances. AC/2 Edwards goes this month and will leave a large gap. This space will not be easy to fill, but we are confident that No. 1 Squadron, 2 Wing will find a man somewhere.

Badminton

In Badminton a new face appears as winner—No. 2 Squadron, 2 Wing. They never lost a single night's play all month. They were closely pressed by Headquarters (last month's winners), who only lost one game. It is good once in a while to see an upset in these contests for it gives added interest to the games. For this reason No. 2 Squadron, 2 Wing have made an additional contribution. Headquarters are still in there and are still a real threat. No matter which team wins next month, it will know it has been in a scrap. There will be no "push-over" here. We shall watch with keen interest this event in February.

* * *

BASKETBALL

The Basketball series is not completed at this time of writing. At the moment No. 1 Squadron, 1 Wing is leading with 65 points out of a possible 70, having lost only one game. They are closely followed by Headquarters, with 55 out of 60, they, too, having lost only one game but with one still to play. This series may easily result in a tie with most of the other teams pretty closely grouped around the leaders.

For No. 1 Squadron, 1 Wing, Morgan has played a fine series of games. He has been ably assisted by Musson and other members of the team. Perhaps the big orchid goes to Flt/Sgt Jack (Happy) Maybie for his untiring efforts on behalf of his Squadron. He has certainly put life into the sports activities of No. 1 Squadron, 1 Wing. In fact he has done the same for every Squadron to which he has been attached—a good example for all to follow.

Headquarters have still a strong team. Elliott has been off a bit, due to injury. Callahan, Davis, Clarkson and the others are a pretty smooth combination and we know they will be in there passing next month.

* * *

**FIRST BOXING TOURNAMENT
REVEALS FINE TALENT**

The first Boxing Tournament of the winter season for 1942 was held in the Drill Hall on January 24th.

Outstanding Boxers

George Simpson of London, Southern Ontario Welterweight Champion, won his bout.

THE AIRCRAFTMAN

J. P. Miller of Kenora, Canada's Heavyweight Champion of 1939, displayed fine ring experience and won handily from J. D. M. Barton. The pay-off came in the last bout between O'Connor of Kingston and Cpl. H. R. Cook of Toronto. Both Airmen fought clean and hard, the decision going in favor of O'Connor.

Instruction

Sgt. Cosmo Canzano, Canada's Lightweight Champion in 1930 and British Empire Semi-

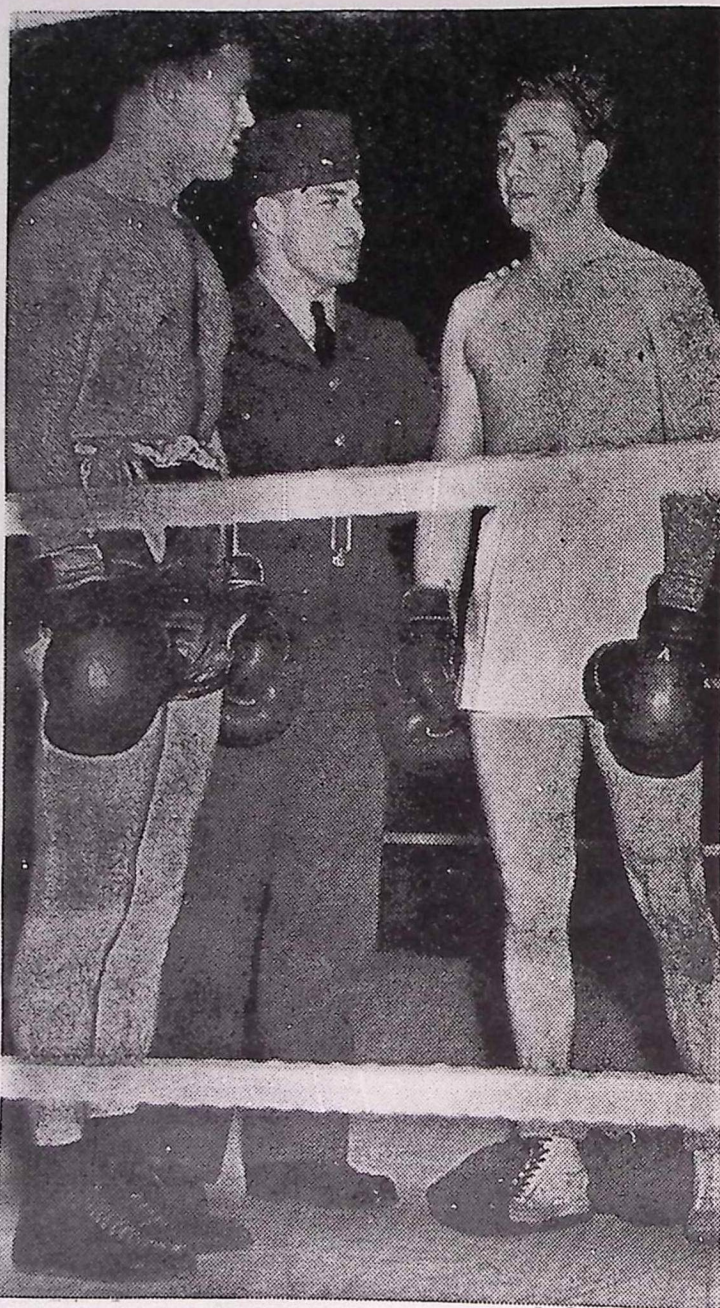
Finalist, will be on hand for boxing instruction every Monday and Wednesday night in the Drill Hall.

Coming Boxing Event

An inter-unit tournament will be held on February 19th. Wing No. 1 will oppose Wing No. 2. Headquarters will oppose E. & A. T. S. Points will be given for entries and winners. Total points decide winners.

Novices can gain ring experience and in-

* * *



BOXING OFF TO GOOD START

The boxing season got off to a great start last month when a Station Ring Tournament was staged before 2,000 Airmen. A great array of pugilistic talent was witnessed and the foundation laid for future events on a larger scale. In this group at the left is James P. ("Jim") Miller, 1939 heavyweight champion of Canada now at the School, who hails from Kenora. He gave a fine exhibition with S. H. Morris of Montreal, sen at the right. In the centre is Sergt. Casmo Canzano, light heavyweight of Canada and runner-up in the 1930 British Empire Games. Sergt. Canzano is the boxing instructor on the Station. He is preparing an R.C.A.F. team to compete in off-station events. F/O R. K. Armstrong is the officer in charge of boxing.



struction by contacting Sgt. Canzano.

Boxing Officials

Referee: Flt/Lt D. Armour. Judges: F/O W. E. Tuer, F/O J. E. Boyes. Medical Officer: Flt/Lt J. A. D. Marquis. Register Keeper: F/O G. H. Ross. Announcer: WO/2 S. A. Banks. Officer in Charge of Boxing, F/O R. K. Armstrong. In Charge of Boxers, Sgt. C. Canzano. Sports Committee Secretary: Sid McLennan (Y.M.C.A.); seconds, Sgt. MacFarland and his P.T. Staff.

* * *

“Every one of us, whatever our respective opinions, knows better than he practices, and recognizes a better law than he obeys.”—*Froude.*

* * *

T. T. S. BASKETBALL TEAM

The Inter-Squadron Basketball League has fine Basketball talent and from the Squadron teams the Station Basketball Team has developed. T.T.S. team is leading the local league, not having a loss to date. Airmen who are interested in the Station team may turn out for practices every Monday and Wednesday nights at 2000 hours in the Drill Hall.

The League is made up of Aylmer Town, Aylmer R.C.A.F., Fingal R.C.A.F., St. Thomas Y.M.C.A. and T.T.S. A trophy presented by Tip Top Tailors will be given to the winning team. F/O A. R. Little is in charge of basketball and LAC Callahan of Headquarters is team captain.

STATION ACTIVITIES

GOLD MEDALISTS FOR JANUARY



- Entry 77 A.E.M.—R119332 AC/2 Buchanan, J. J.
- Entry 77 A.F.M.—R121698 AC/2 Bugler, W. D.
- Entry 72 A.F.M.(MR)—R107801 AC/1 Grieve, R. C.
- Entry 78 A.E.M.—R123809 AC/2 Dickson, R. C.
- Entry 78 A.F.M.—R121376 AC/2 Zelenski, A. P.
- Entry 73 A.F.M. (MR)—R118523 AC/1 Ellison, E. E.
- Entry 79 A.E.M.—R122338 AC/2 Conrad, G. C.
- Entry 79 A.F.M.—R127706 AC/2 Simpson, G.
- Entry 74 A.F.M.(MR)—R119581 AC/1 Proud, D. A.
- Entry 16 Elec.—R123635 AC/2 Painchaud, P. J. P.
- Entry 17 I.M.—R109333 AC/2 Pollock, J. L.
- Entry 80 A.E.M.—R116166 AC/2 Mueller, E. G.
- Entry 80 A.F.M.—R119796 AC/2 Johnson, E. D.
- Entry 75 A.F.M.(MR)—R119137 AC/1 Dear, R. C.
- Entry 78 A.E.M.—R123816 AC/2 Lukinchuk, M.
- Entry 81 A.E.M.—R116547 AC/2 Melnyk, M.
- Entry 81 A.F.M.—R107300 AC/2 Royal, F. G.
- Entry 76 A.F.M.(MR)—R90870 AC/1 Easey, A. R. S.
- Entry 18 I.M.—R122311 AC/2 Stone, J. S.
- Entry 21 Equip.—R121459 AC/2 Constable, W. M.
- Entry 12 Acct.—R120688 AC/2 Bourassa, E. F.

“FOR LADIES ONLY”

Strange as it may seem, this Station is able to boast of an up-and-coming Women’s Organization, composed of the wives of Airmen, N.C.O’s and Officers. The T. T. S. Women’s Auxiliary is an active, happy, democratic group of women who meet every Thursday afternoon at 2.30 o’clock, Daylight Saving Time, in the War Service Room of the Y. W. C. A., St. Thomas. The President, Mrs. H. A. Peacock (phone 1609W, St. Thomas), is anxious to welcome the wives of all Airmen, N.C.O’s and Officers to the regular weekly meetings. Members of this Association will be glad to call on any new wives in the district to welcome them to the Organization. The ladies pride themselves on the friendly informal spirit that pervades the group.

Airmen wishing to view members of this group before taking the risk of allowing their wives to become members will find samples of the membership, happily serving each night in the Coffee Bar in the Recreation Hall. This is only one of the services rendered by this worthwhile Organization, whose aims are Friendship and Service. The ladies in the Coffee Bar will be glad to answer any questions you may have about the Auxiliary.

* * *

PICTURE OF THE MONTH

On page two of this issue appears a very fine snow scene photograph by F/Lt P. S. A. Morton. It is hoped that the Airmen on this

Station will submit photographs to the editor. He will choose one to be printed in *The Aircraftman* as the Picture of the Month. How about your photography?

* * *

LIBRARY CORNER

By A. Askew

The increasing use of the Technical Corner of the Library is very gratifying to the Library Committee. Sometimes, indeed, an Airman is so enthused over a book he finds in "The Corner" that he expresses a desire to purchase it. The Librarian, of course, may not sell any books, but whenever possible he will gladly obtain copies of any books, technical or otherwise, at cost price from the booksellers. Some books that are published in England cannot be obtained immediately, so it is suggested that men who are interested in obtaining these should secure the address of the publisher from the Librarian and write direct themselves. Books added to our technical shelves just recently include:

- Aircraft Mechanic's Pocket Manual
(a handy book for quick reference)
- Wireless Telegraphy
- Flight Without Power
- Seaplanes
- Aeronautical Meteorology
- Electricity in Aircraft
- Trigonometry (Hall & Knight)

and several others worth looking over. This technical section is undoubtedly a valuable part of the library service. Though the time books are allowed out is restricted to three days, renewals may always be arranged where needed.

There's no doubt about it, the most popular day on this Station is pay day. That goes for civilians, too, and how! But nevertheless we do work for something besides pay. There is a satisfaction in the job itself that has no relation to payment. Everyone who has been happy in his work knows that this is true. So when a chap who was leaving for a new Station came in the other day, shook hands and said "I've spent some of the most pleasant and profitable hours on this Station here in the Library," why it was nearly like getting an extra pay day.

If you are interested in economics, read "Canada at War," edited by Prof. J. F. Parkinson of Toronto.

Here's good news for you Western fans: A new lot of Zane Grey's books will arrive early in February, also several "Saint" books. Watch out for them on the shelves.

CALENDAR OF ACTIVITIES

(Newcomers to the Station may 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.
- 0915 Hrs.—Protestant Church Parade.

MONDAY

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

TUESDAY

- 1900-2000 Hrs.—Scheduled Inter-Squadron Games.
- 1900 Hrs.—Camera Club (in Wing 2, Security Guard Lecture Room).
- 2015-2200 Hrs.—Movie, supplied by the Y.M.C.A.

WEDNESDAY

- 1900-2000 Hrs.—Scheduled Inter-Squadron Games.
- 1915-2015 Hrs.—Bible Study Group in the Chapel in Wing 2.
- 1930-2030 Hrs.—Camera Club (in 2 Wing, Security Guard Lecture Room).

THURSDAY

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

FRIDAY

- 2015-2200 Hrs.—Program supplied by the Y.M.C.A.
- 2100-2430 Hrs.—"Bachelor" Dance (at the Y.W.C.A., St. Thomas).

SATURDAY

- 2000 Hrs.—Movie, Drill Hall.

* * *

CONVERSION

"But I can't marry that flight/sergeant, mother. He's an atheist and doesn't believe there's a hell," moaned the sweet young thing.

"Listen, my dear," quoth her mother, a stern look in her eye, "you marry that flying Romeo and between us we'll convince him he is wrong."

WAR TALES

"You have never kissed so wonderfully before, Laura. Why is that? Because we are in a blackout?"

"No. It's because my name is Vera."

AMONG THE SQUADRONS

1 SQUADRON, 1 WING

By Cpl. Hardy

Well, another month gone, and No. 1 Squadron is still without the C.O.'s Trophy, but we'll keep trying, and who knows some day we may hit the jack pot. One thing is sure, though: we really make it interesting for the rest of the Squadrons and give them some real battles. Congratulations to Headquarters for the fine showing they made in winning the Trophy in December.

Since we last went to press we have lost a few more Entries, namely, the A.E.M. 75, the I.M. 16 and the E. 15, and a fine bunch of fellows they are. Lots of luck, fellows, on your new Stations.

Congratulations are due to Flt/Sgt Maybie in his recent promotion and we sure enjoy having him with us. It may take some time, but I believe we can eventually tame the savage in him.

NO PUSHING, PLEASE

I'm hungry, he said, and he crawled out of bed, and polished his buttons and boots;
I'm hungry, he muttered, and the shaving soap sputtered as he cut off his beard at the roots.
I'm hun—, he began as he galloped and ran and rushed out the squadron door;
Oh hell, he sighed and darn nearly cried as he saw the line down the floor.
He gazed at the mob and choked back a sob as he saw the length of the line;
It twisted and turned and his stomach seemed burned at the time he must wait in line.
He stepped into place and the look on his face would have caused any child to scream,
And the words that he said would have damned all the dead as he muttered like one in a dream.
If I'd have known I was rating a lifetime of waiting I'd darn well have stayed in bed;
The trouble I've endured to make me assured of getting this face of mine fed.
I'm through it at last and breakfast is past and I've ditched my plate, fork and spoon,
But isn't it hell when you know very well you'll do it all over at noon.

There are snobs and there are snobs, because there are many ways of disdaining a person. And one who disdains another is a snob. You may disdain a person for his lack of culture, lack of discipline or his lack of taste. Any everyone will know that you are a snob. But the strange thing is that you may disdain a person for his having culture, having discipline or his having taste, and the mob will often think you are funny and strong, whereas, in reality, you are a double snob. I sometimes think, the second kind, or low-brow snob is worse than the first or high-brow snob. The first is ridiculous on the face of things, and only harms the snob himself. But the second provokes the brayish laugh, and is thought a man of healthy good sense;

when as a matter of fact, he hurts the good things that this poor world could use more of.

So, my friend, don't be a snob this year—

A snob, either high-brow or low!

But if you can't wear your brow

Where it ought to be! At least wear it high!

—L. TREACY.

ODE TO THE 79th ENTRY

'Twas on a Friday afternoon,
Midst heat and sweat we came;
We landed here at T.T.S.,
Some men without a name.

Ere time had hardly lapsed at all,
Peace and tranquility having been replaced,
Our sense of well-being now effaced,
In three ranks we stood in the hall.

A Trojan voice descended then,
It penetrated every nook and ken,
"On your toes, you bunch of swine,
You'll be known as the 79."

The bunch of men quaked in their shoes
To hear such horifying news.
"Dismiss to bunks for now," said he,
"But in the dawn we'll do P.T."

The sound died out, the light grew dim,
And you could think of only him.
For all did know he was quite brash,
The man with movements like a flash.

Of striking stature is this man,
Whom some say looks like "Dangerous Dan";
He pokes his head in every nook,
And even acts just like a crook.

When in parade the boys did stand,
He ranted at them like a band.
"Stand still—Steady—Don't look at me;
I'm not handsome as you can see."

Keep your arms up—don't lag now;
You'd think you're still behind a plow.
Hurry on now; move your legs,
Or you'll find yourself right on the Peg.

A man of many tastes is he,
And one of those is drinking tea.
However, he is very hale,
Whene'er he has been quaffing ale.

And so we leave thee now in haste,
The "79" must ere not waste
This space so kindly given here,
Which may be read both far and near.

—"WILL O' THE WISP."

A Scotch lassie, who was about to be married and was singing merrily around the house, was rebuked by her sober old father. "It is a serious thing to be married, lassie," he protested. To which she replied: "I know it, father, but it is more serious not to be married."

2 SQUADRON, 1 WING

By AC Bokay

With the passing out of the 81st T.T.S. will long have something to remember. A fine Entry with 20 "B" Grads (including Rabbi Halter). A plug to Cpl. Harris for his gentlemanly conduct with the boys.

Welcome, 92nd Entry! Cheer up, boys, the bars will soon straighten out and finally they'll disappear.

And then there's the one about the Airman who claimed he was selling copies of "The Aircraftman" to work his way through T.T.S.

How about the Airman who was so thin that when he stood sideways on parade he was marked absent.

It is nice to look back on past performances, but there's always a new day, so here we are tightening our belts and starting out in the new sports cycle with a firm resolution to get back into the limelight. To do this, however, we must have the whole Squadron participating either as players or as spectators to give our teams support.

Hats off to our boxing winners and hockey teams. The latter, despite the loss of several good players, is right in there heaving the puck and if Dame Nature makes up her mind to come through with some ice we will really go after the Station championship.

But we still have to ship up good teams in Basketball, Volleyball and Badminton, and it is mainly to further this end by acquainting the new Entries with sports activities that the following paragraphs were written.

Entries are continually being posted and we must rely on new blood to keep things going. To strengthen our teams in February, we will need more players. Anyone interested should turn out so that captains of the various teams may size them up and fit them into the teams. "Red" Junner of the 85th Entry will be captain of the Basketball team and AC Bokay of the Orderly Room captain of the Volleyball team. With the excellent backing of Cpl. Bayliss and Sgt. Brooks we are hopefully looking into the future for consistent wins which will lift us up and out of the doghouse. Watch your bulletin board and Y.M.C.A. notices for time and dates of games. If you're at all interested don't hold back, especially the 88th, 90th and 92nd Entries. What do you say, gang; let's have some support and we'll be back in the groove before you know it.

So cheer up, boys, and let's win—victory in more ways than one.

* * *

3 SQUADRON, 1 WING

By Cpl. Ollivier, S. J.

Cpl. Maxfield acquired a fine new pair of boots the other day, the breadth being nearly the same as the length, and that's quite a bit of territory. What the question on hand is: How is he wearing them, crossways? And by the way, those bear tracks beside our hangar are Max's tracks.

There is a good-looking New Zealander in our Squadron who can boast of great height. When he gets up in the morning his rate of climb instrument takes three complete revolutions before adjusting itself for the day. Anyways, they say that he slept crossways in his bunk the other night and covered four bunks in a row. Boy, that is a lot of bunk!

A clever Trainee came rushing up to a Corporal in the Maintenance Hangar the other day with a twinkle in his eye. He broached a great saving device idea hatched in his own time. The story goes like this:

Trainee: "Corporal, when the aeroplane engine is running, in righthand tractor motion, it is using gas, isn't it, and drains the gas tanks?"

Corporal: "Yes, that is right."

Trainee: "Well then, if they had an electric motor to turn that propeller in the opposite direction, namely, lefthand tractor, why wouldn't that reverse the procedure and fill the gas tanks?"

Note: The Corporal was taken away under force, in a straight jacket.

The other night there was an Airman running up one corridor, down the other, as hard as he could go. When stopped for questioning as to what he was doing he stated: "I am on duty flight and was made runner for 3 Squadron for the night, and no one will ever say that I shirked my job," puff, puff; and he kept on going.

There was a huddle of several Trainees, and a curious N.C.O. listened in. The argument was hot and heavy, topic of debate being the one and only East versus West. It seemed that the West was in the minority, but doing valiantly under the circumstances, when a clever chap tuned his station in to assist the West. The argument proceeded with due heat, but evening up to the West's advantage, due to the newcomer, broaching more points for the West. After completion of the argument the Westerners looked with admiration to the newcomer and asked what part of the West he was from. On a hot sprint he told them he was from Ontario.

There is a Trainee in the 83rd Entry who says that the less you bet the more you loose when you win.

There is a certain Sergeant in our Squadron who wakes the boys up each morning, carrying a blue book. Could he be looking for autographs or signatures?

The lads in 3 Squadron wonder if they ever sleep over in Ireland. There is a certain person who goes around night and day, with a cheery smile, singing: "You got to get up, you got to get up, my lucky lads."

Chits and Chats in the Squadron

The 87th Entry have my sincere thanks for their effort and time given for the Drill Team. Keep up the good work, Flt/Sgt Harris.

Sergeant Maguire has the good wishes of all the Airmen in 3 Squadron. Why?

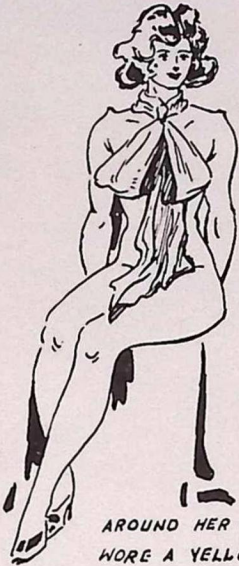
Sergeant Stanley has an heir. Congratulations!

I wonder why a certain corporal in 2 Squadron is called "Socks."

The body-building class, under the direction of Cpl. LaPorte, has gained momentum. It is well attended and the Corporal deserves a lot of credit. He certainly spends his time in a good way.

LAUGHS

FROM T.T.S.



AROUND HER NECK SHE WORE A YELLOW RIBBON.



THIS ISN'T A BLACKOUT - IT'S A SQUADRON O.C. ON P.T. PARADE.



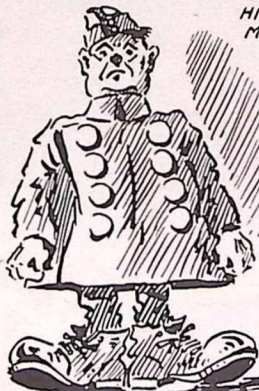
HIS NOT TO REASON WHY - HIS BUT TO DO OR DIE.



NO NEED FOR WORRY.

HAIR CUTS - THE MENACE - HIS WAVY LOCKS MUST BE SHORN.

THE PROPER TRIM.



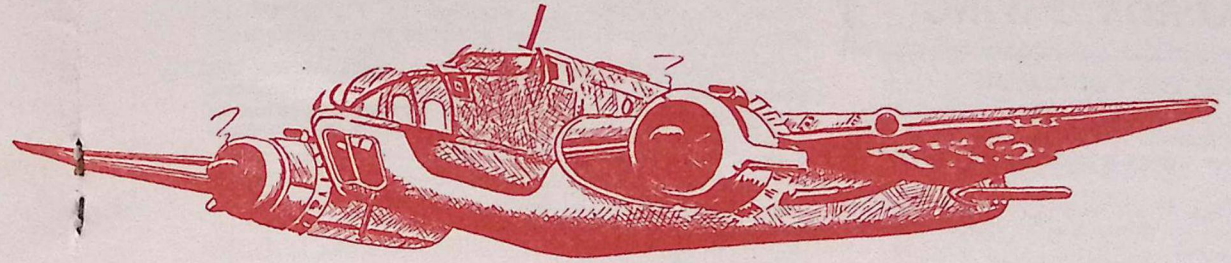
HOW YOUR BUTTONS AND SHOES FELT - THAT MORNING ON PARADE - WHEN YOU DIDN'T SHINE THEM.



THE PERFECT FIT.

W. Dubois

WORK



SAVE

3 Sq. - 2 Wing

2 Sq. - 2 Wing

2 Sq. - 1 Wing

1 Sq. - 1 Wing

3 Sq. - 1 Wing

E. & A. T. S.

Civilian

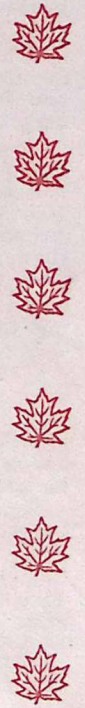
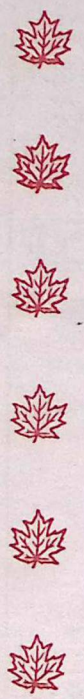
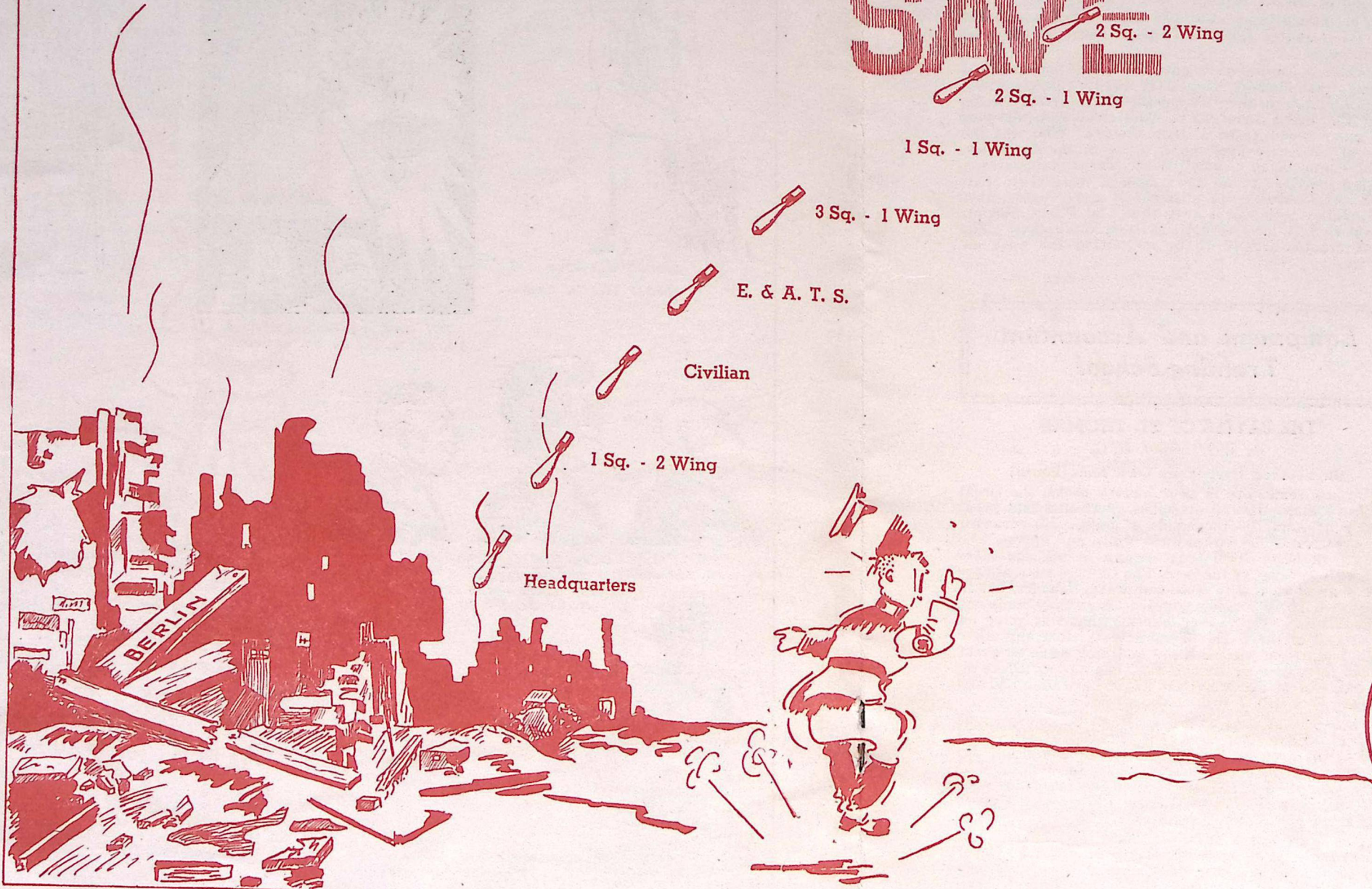
1 Sq. - 2 Wing

Headquarters

LEND

YOUR
SAVINGS
TOTAL
\$34,720
NOW

H. E. Bishop



1 SQUADRON, 2 WING

AROUND THE SQUADRON

We take this opportunity of welcoming Sgt. Goodmanson to No. 1 Squadron. He is no stranger to most of us and we hope he enjoys a good long stay with us this time.

Cpl. Crook, like Sgt. Goodmanson, is no stranger to the School and seems to think No. 1 Squadron not a bad spot in which to be.

Our very efficient clerk, LAC Gibson, was handing our cigars the other day. Here is the reason: It seems the stork left a 7-pound boy at his home in Listowel.

Cpl. Jones is feeling quite cheery about being out in front for the C.O's Trophy, but we feel that AC/2 McEachern is doing a splendid job along that line.

LAC Sullivan, our competent Storekeeper, has been working hard to keep the lads of the Squadron well shod. For this we extend our thanks and ask for more.

The new Entry, No. 90 A.F.M., are well worth mentioning for they appear to be a fine lot of lads. We feel sure that they have the stuff good Airmen are made of.

We said good-bye to the 73rd A.F.W. on the 14th, and a fine lot of boys they were, too. They were all pleased with their postings and left in high spirits. Here's hoping that the lads of Entries soon to be posted are as well pleased with their postings when they go.

Cpl. Davies, an old-timer around No. 1 Squadron, 2 Wing, is now at the E. and I. School. It is our loss and their gain and he takes our best wishes with him.

PARADE GROUND OBSERVATIONS

How many of our readers have noticed that a most important plot of ground on the Station is not marked out in the plan of the Technical Training School at the back of the "Aircraftman"?

It is most important because it is sacred ground. We do not smoke on the Parade Ground, because of this fact. This is where we are supposed to put on our best behavior, and the man who doesn't is sacrilegious. There we "Hoist the Ensign." On this ground men who have gone before us stood. Some of these men have paid the supreme sacrifice. We are pleased to put on our best behavior in their honor; happy in the thought that those who follow us will in turn do us the same honor.

We must not follow the bad example of the odd smart alec by acting the fool on that sacred ground, but rather discourage his nit-wit pranks.

On that parade ground is where we show respect for all we hold dear—our Empire, our home, ourselves and God.

—CPL. COOK.

* * *

2 SQUADRON, 2 WING

AC/1 D. H. Scott

"News that's hot,
Dished out by Scott."

During the past month "2 and 2" has lost three Entries, the 75th, 76th and 78th. So long, boys, and

good luck at your next Station. New Entries include the 85th, 88th and 91st.

We also extend our welcome to Flying Officer O'Rourke, who is at present attached to our Squadron.

We have had many staff changes here during the past month, also. Corporal J. D. Walker has departed for Fingal for a "discip" course. Corporal Newton is now busy sorting parcels at the Wing Post Office. Sergeant Canzona is now attached here.

Then there is a certain Flight/Sergeant who put the following notice on the board "Anyone who puts in an application without his entry number on it will be thrown in the wastebasket." Who was going to do the throwing, Flight?

It is also reliably reported that LAC Holstead has developed a new kind of salute, to be used when meeting officers in the hall.

This Squadron is also near the top in the race for the Commanding Officer's Trophy. Keep up the good work, boys!

When it comes to a game of good old-fashioned shinny, that's where "2 and 2" really shines. Along with 3 Squadron, they played the Wing Orderly Room staff who had 1 Squadron on their side. Just who won the game seems to be a little obscure. Who was the star of the game also seems to be in the dark side. Many claim "King Clancy" White was a standout (although some say he sat down most of the game). Sergeant Archambault cut quite a few mean capers, also. The goalies both had a busy time and Flight Sinclair is reported to have stopped at least three shots. The worst trouble seemed to be in getting the puck off the ice.

* * *

**Equipment and Accountant
Training School**

THE BATTLE OF ST. THOMAS

By WO/2 King, H. G.

On Looking Over Your Own Back Fence!

Do you remember in your history books, the Great Wall of China? How it stretches all around that great section of Asia for thousands of miles. No stranger was ever permitted within those walls, and anyone who did get in never lived long enough to see any more than a tiny corner of the land. The Chinese have always been a great race with wise and strong leaders, but in that one habit of making a closed China they made one great mistake. They never learned what was going on in the rest of the world. They never visited any other place, and no one visited them, and they made no great strides in science or education. That has its effect on the China of today. What she might have been had she progressed with the rest of the world!

Then look at your own life. What do you know of Canada? Have you seen the Rockies, Gaspé, Old Quebec, the open prairies or the Pacific shoreline? Do you have any desire to know all about the Dominion of which you are a part? Do you see the resemblance of your outlook with that of Ancient China, with a great solid fence around your small environment?

This war, apart from its many evil effects, has caused the eyes of many thousands of R.C.A.F. young men to be opened. They have seen their country perhaps from a different viewpoint. They have learned why great leaders in the past and fellows like them-

THE AIRCRAFTMAN

selves have given their all that we should have a land of peace and opportunity; opportunity, above all, to live a life of service, not only to themselves but to their fellow-beings. Take the advantage you have of learning all about Canada. On your 48's, see the monuments, the places of beauty and interest, historical sites, and try to realize what put them there. Make yourself an Airman and a citizen worthy of the Dominion of Canada and then the Dominion itself will be worthy of all its people. A country is only as strong as its weakest citizen.

—AC/2 ANDERSON, J. W.

The much-expected Philip Hudson Giles (no rank, as yet) arrived a few miles behind the front line recently, and is well established in the barracks of our WO/2 and Mrs. Giles, all three of whom are doing well. Now that the young scamp is a little stronger, rumor has it that they will show him his father any day now.

Our School is pleased to report that our Chief Instructor, Flt/Lt Aldersley, who has been on the sick list, is home convalescing and will soon be taking up his duties again.

Our Cpl. Sivell, the local Einstein, had it pretty jammy last week. He gets called back from his moon, honey type, to be posted two blocks from his home. All of which gives us courage. And just to even things up, Sgt. Ron Joel drew Sydney, N.S., as his summer home, if they have any summer there.

* * *

Wife: Darling, darling!

Hubby: Yes, dear.

Wife: Don't be ridiculous. I was talking to the canary.

* * *

CORONERS OF THE AIR

By Marquis W. Childs

(Condensed from "CORONET")

An electrifying answer to those who blame the airlines each time a new headline blares out with: "Air Crash Takes New Death Toll!"

A major air crash always makes our blood boil. Why, we demand, isn't something done about it!

What few people realize is that something is done — and done immediately. Hardly has the wreckage settled before the crash detectives of the Civil Aeronautics Administration and the Civil Aeronautics Board are on hand.

Their task is to find the unknown X in a heap of smoldering ruins — the records of a flight that has ended in tragedy. The cracked cylinder, the pilot's error, the faulty navigation aid must be brought to light if possible. For each time these crash detectives find an answer it means a gain, large or small, for safety in the air.

As a matter of fact, the curve of air safety, measured in passenger miles flown per number

BETWEEN PAY DAY LAMENT

(Aylmer Airman, November 21, 1941)

I need an advance of pay,
My inlaws have moved in to stay.
They have no money,
But their daughter's a honey,
And I haven't got started to play.

I need an advance of pay,
As on a 48 I go away.
I cannot do much
Without making a touch
And I'm too much in love to delay.

I need an advance of pay,
To keep my creditors at bay.
They threaten to go
To inform the C.O.
"Hooks down," I'm afraid he may say.

I need an advance of pay,
My wife's in the family way.
You ask me to explain,
"Sir, are you insane?
I've been married two months and one day."

I need an advance of pay,
To get to London today,
My girl friend's arriving,
I haven't a farthing,
We have to get some place to stay.

I need an advance of pay,
If you would just ask it this way,
"I'm going to be truthful,
I'm due for a snootful,"
You'd never be turned away.

—The Account Officers.

of fatal accidents, has moved steadily upward:

MILES FLOWN AND FATAL ACCIDENTS*

(DOMESTIC, FOREIGN AND TERRITORIAL AIR CARRIERS)

Year	Total Miles Flown	No. Fatal Accidents	Miles
			Per Fatal Accident
1936	71,211,726	10	7,121,173
1937	74,700,237	6	12,450,040
1938	78,197,239	8	9,774,655
1939	90,976,063	3	30,325,354
1940	119,482,711	3	39,827,570

* Source: Civil Aeronautics Authority.

These figures tell the growth of air travel and along with it the growth of air safety. Much credit must go to the crash detective. The moment a disaster is thought to have occurred

he is summoned. It may be in the middle of the night, or he may be in the midst of a family crisis. Nevertheless, he takes the first plane to the scene of the accident and goes to work.

The Civil Aeronautics Board has twenty-five investigators who are posted strategically in the seven regions into which the country is divided. They have all had sixteen years or more as pilots, designers or air safety engineers.

The Aeronautics Administration also maintains a staff of investigators, including such men as George Haldemann who has flown since 1917.

Often, in the case of a major disaster, these men work in teams, examining every part of the damaged motor, every piece of the shattered cockpit. Any fragment that shows the least abnormality is subjected to thorough microscopic examination and detailed laboratory tests. And that is not all.

They dissect the instruments of the plane, even though they may be hopelessly smashed, for some small clue. The flight records on the ground are checked and rechecked against the verbal testimony of those who kept them. At a public hearing, the crash detectives question every possible witness who might remotely contribute any scrap of information. Nothing is overlooked.

Take, for example, the job they did on the disaster at Oklahoma City two years ago. When the flash came through that a Braniff Airways plane had crashed, two veterans were ordered to the scene by the Civil Aeronautics Board. One was Phil Salzman, who has been in aviation for twenty-two years. His partner was Robert Hoyt, assistant director of the Board's Bureau of Air Safety, and one of the first ten pursuit pilots trained by the Army Air Corps in 1917.

At 9.20 on March 25, 1939, Braniff Airways Trip One left the Chicago airport en route for Dallas, Texas, with scheduled stops at Kansas City, Wichita and Oklahoma City. The crew consisted of Captain Claude H. Seaton, with a total of 9,060 hours flying time; First Officer Malcolm Wallace, with 4,500 hours; and Hostess Louise Zarr. There were nine passengers aboard.

The trip had proceeded normally from Chicago to Oklahoma City, leaving there at 2:45 a.m. The ground crew saw the trip take off in a normal climb, but the plane had been up less than a minute when the operator in the airport control tower got the following message from First Officer Wallace: "Turn on the light, OK City, we are coming in." There was a fearful racket in the engines that could be heard on the

ground. At 2:48 the plane crashed near the west boundary of the airport. And two minutes later it was a burning inferno. The hostess and seven of the nine passengers were killed.

The crash detectives, Hoyt and Salzman, had a distinct advantage in that the crew survived and were able to tell what happened in the cockpit in those fatal three minutes from the time the ship left the ground to the moment of the crash. The problem is doubly difficult when the crash detective is confronted with nothing but a mass of wreckage.

Examining every part of the two engines, the investigators soon found evidence to substantiate the Captain's testimony that the lower third of the engine cover had been ripped away. They found the Number Six cylinder was missing from the left engine. And so a search was made along the probable path that the plane took as it fell. The missing cylinder was found about 2,800 feet north of the north boundary of the airport and 850 feet west of the centre line of the runway from which the plane had taken off. Nearby was a piece of the engine hood that had been blown away.

Now why had this happened? That was the next question for Hoyt and Salzman to solve.

They found that on the left engine all the bolts on the Number Six cylinder had broken off, and that the cylinder in parting from the engine had destroyed the piston and battered the connecting rod. The broken studs were put under a binocular microscope which disclosed evidence of progressive fatigue fractures in each stud. In other words, the fatal weakness had been developing over a considerable time ready for the moment of vital stress that occurred when the pilot put on all power for the takeoff.

The next step was to relate the current crime to past crimes, and this is just what investigators for the Safety Board did. They went to the evidence in four previous crashes and discovered clues that pointed to one and the same criminal. The failure of those cylinder bolts caused a blowout in the engine in each case.

The failure of one engine in a two-motored plane puts the pilot in a tough spot. One power plant alone must do the job with a delicate machine that is likely to go out of balance. And the evidence of Seaton and Wallace and the crews of those other crashed planes showed that the propeller of the broken engine continued to revolve, driven by the wind, thereby setting up a distracting and dangerous vibration. It went on revolving — windmilling is the technical word — because the only propeller control in the cockpit was for both engines and not one alone.

THE AIRCRAFTMAN

Not one of the planes that crashed following a cylinder break had been equipped with full-feathering propellers. Full-feathering means that the blades are set in the hub in such a way that each blade can be rotated to present a knife-edge to the air if the engine should quit. With these knife-edges presented, the wind cannot revolve or windmill the dead propeller.

Obviously, the first recommendation of the Board was that all planes not then equipped with full-feathering propellers be required within a reasonable time to install them. Second, because it had been shown that methods of fastening cylinders to crank cases in that model of engine were inadequate, the Board recommended a "substantial reduction" in engine power of commercial aircraft "in all cases where there was reason to believe that safe power limits were being exceeded for take-off, climb or cruising."

Third, and almost as important, the Board decreed the death penalty for a minor criminal turned up in the course of the investigation. One of the surviving passengers who suffered a broken arm testified that it had been only with the greatest difficulty that he had been able to reach around with his good arm and unlatch his safety belt which, under a system then in use, fastened at the extreme right by the edge of the seat. There was reason to believe another passenger who was conscious when removed but died later would have survived the wreck if only he had not taken so long to free himself. In view of this, the Board recommended that in the future all safety belts fasten in the middle, equally accessible to either hand in emergency.

Often these "coroners of the airways" are confronted with seemingly insoluble riddles. On the evening of February 9, 1937, a United Airliner glided in a wide curve across San Francisco Bay towards the lights of San Francisco airport. Two miles out from the edge of the field the plane crashed into the dark waters of the bay, and eight passengers and a crew of three were killed.

The plane had been flying a schedule from Los Angeles to Oakland with a stop at San Francisco. Going back and reconstructing all the circumstances of the flight — the weather, the radio reports between plane and ground, the pilots, their age, health, experience, the motors, when and how they were last overhauled, down to the smallest detail — revealed nothing at all. The crash would have to be written as an unsolved mystery.

About this time, another pilot found suddenly that his control stick had jammed. Looking down, he saw his headphones, which had slipped off, wedged into a small open space

where the stick came out of the floor of the cockpit. He jerked the earphones out and with the stick operating again righted the plane.

Acting on this experience, investigators went back to the wreck that had been hauled out of the San Francisco Bay and microscopically examined the base of the control column. There they found fragments of the pilot's microphone.

And so it was ordered that a canvas boot be placed over the opening at the bottom of control sticks, so there would no longer be any crevice into which earphones might fall.

An example of the industry of the crash detectives is the 120-page report on the fatal crash near Salt Lake City early in the morning of November 4, 1940. A half dozen experts converged on the scene of this disaster as soon as word of it was flashed across the country. This is the story they pieced together:

Fourteen thousand feet above the Salt Lake City airport, the Captain of United's Trip Sixteen from Oakland, California, was communicating with the dispatcher on the ground. They were working out the landing that was to be made. "The stuff is broken out here much better," said the Captain, speaking of the cloud formation. That was the last word.

Six hours later Trip Sixteen was sighted from the air, crashed against the side of Bountiful Peak in the Wasatch Range. Rangers on muleback found the broken bodies of seven passengers and three crew members in the scattered wreckage. What had happened in the cloudy darkness of that snowy morning over Salt Lake?

The crash detectives proceeded to reconstruct what was happening on the ground while the big plane hovered above the clouds with its freight of human lives. The Salt Lake radio range had been troublesome always, even after its modernization a year before. To keep it constantly under observation, Washington had established three radio test stations to check from hour to hour whether or not the beam had swung from its true course because of the effect of static.

Questioning employees in the three test stations brought out some rather startling evidence. One had found a deviation in the range but had waited more than an hour before calling on Airways Traffic Control to broadcast a warning to all airmen. Another had not even kept a monitor's log during the critical hour from five to six when Trip Sixteen was known to be missing.

Keyed to this was the testimony of other pilots who had come in on the Salt Lake radio range that same morning. Trips preceding

Captain Fey reported no difficulty with the range. But pilots who came over Salt Lake at about the same time had trouble.

Putting all this together, the crash detectives concluded that the north leg of the range had swung toward the east and the Wasatch Mountains. It had swung so far that it was worse than useless to Captain Fey.

A whole series of recommendations grew out of the investigation. Communications personnel should be better trained, and their pay should be increased in an effort to reduce the rapid turnover. Thorough study and possible

revision of the system for testing the radio range was urged.

But, as one set of hazards is eliminated, another set crops up. The crash detective cannot ever relax. Knowing out of years of experience how much depends on human judgment, he is not astonished when the disaster flash comes. He is likely to remind you that with an adventurous people safety progress comes slowly.

After all, it took nearly seventy-five years to eliminate the wooden coach from the railways of the nation.

* * *

GRADUATE FROM JARVIS DESCRIBES RAID ON GNEISENAU IN BREST

"Good Show," Says Pilot After Bombs Loosed; "Now Let's Get Out"

Pilot Officer Jack Calder, who graduated from Jarvis last January, describes his first operational flight over German-occupied territory as Navigator and Bomb Aimer.

* * *

By JACK CALDER

London, Aug. 12.—Slapsy Maxie looked at the oil pressure again and then he looked at me. "I think we might just make it," he said.

Then it was time to dash out to sea, if we were to be at the target at the zero hour. The formation tightened behind us and we climbed for three minutes through broken cloud. Behind were other formations—all streaking for Brest and the Gneisenau.

We levelled out and suddenly broke cloud. Below us was the sea, blue as blue could be, and far ahead was the coast of France.

I thought of the things I wanted to think about for a moment or two. Then I thought of that bad oil leak which might make our gun turrets unserviceable at the target area. The wireless operator was working desperately to repair it. His wedding was only a couple of weeks ahead and he wanted to come back for it.

Objects on the coast grew bigger and bigger and I went forward to the bomb aimer's position. Max patted me on the shoulder as I passed him. Boy, he was cool! He had refused to turn back because we were leading the formation and there was a job to do.

"Look at that ack-ack come up," someone said.

Ahead of us the sky was cluttered with little patches of anti-aircraft shell bursts. We crossed the coast and headed across the Little Peninsula toward the drydocks of Brest.

"I'm going to try the run-up from here," Max said over the inter-communicating phone.

"But we're ten miles off the target and will be there two minutes early if we make our move now," I told him.

"That's all right," he argued. And he was captain. "They're not bothering us now and we've got a good chance of getting in."

"Okay," I said. "Steady ahead. Target."

Below I saw barrage balloons at about 6,000 feet. Something was burning on the ground—probably a fighter aircraft.

It happened like a flash.

"Rat-a-tat-tat-tat-tat" went the guns in our rear turret.

"I just shot down an Me109," called the rear gunner. "I didn't even have time to report it."

"Heads up," cried the gunner leader. "Here comes two more."

"I've got one," called the rear gunner of No. 3 aircraft.

"Let's have less people talking at one time," Maxie ordered. "Give the gunnery leader a chance."

"All right, but I've got an Me109, too," yelled No. 2 rear gunner.

Below us I saw a parachute open. One of our victims had managed to bail out. Someone reported that one fighter had crashed on the ground.

Now we were doing violent evasive action. The ack-ack was coming at us. The target was desperately near.

"Broomph! Broomph!" went a burst right beneath my face. I put on my parachute.

"You'll have to do a 90-degree turn left to make it," I told Maxie, "quickly."

He wheeled her over and the formation followed.

"Left, left," I called. "Steady."

The target was coming down the drift wires.

"Dropping, dropping, go," I hollered, and the bombs sailed out. On the last turn No. 3 had slithered above us and his bombs nearly hit us as they fell.

"Bombs gone," I shouted.

"Good show," said Maxie. "Now let's get out of here."

At that moment I knew that we had missed the Gneisenau because I had felt a slight skid as we came out of the last sharp turn and straightened out.

"We Had Some Fun . . ."

As we dived and turned I saw the bombs bursting slightly to the left and beyond the target. At least we had helped to mess up the docks.

The shells were breaking all around us. We got out because Slapsy Maxie was so cool.

All the way to the coast and beyond it our gunner leader reported other aircraft, but any that came near us were friendly. At the coast Maxie put the nose down and streaked for home.

He throttled back when he saw a damaged Wellington struggling home on one motor. We stuck with her until our fighters came along to protect her halfway across the channel.

We landed at an airdrome in the South of England to refuel. I crawled out, had tea in the Officers' Mess and lay down on the grass—to try to think about home and other far-off things.

But when I closed my eyes, all I could see was a map of Brest, the drydocks and the Gneisenau. Thank goodness, a lot of people got her that day.

—"FLY PAPER," Jarvis.

* * *

RESEARCH AND DEVELOPMENT IN AIRCRAFT

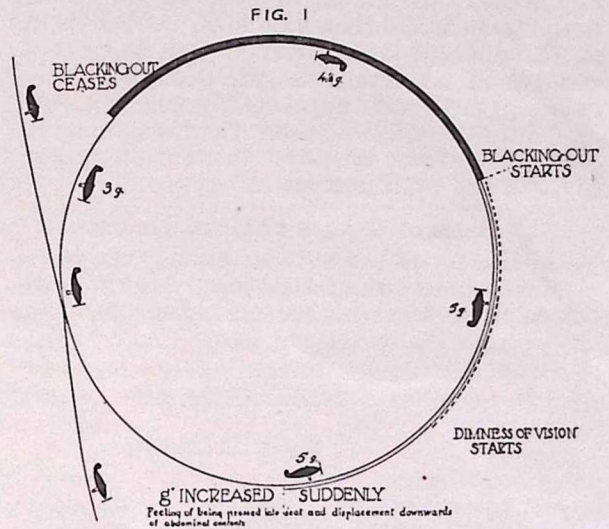
Although it is intended to include in these series items of interest relating to research and development of aircraft, it is considered that the following extracts from an issue of "Bulletin of War Medicine" might be of general interest. It is possible that some trainees may eventually become aircrew, and with that thought in mind the article is presented.

Medical Problems in Flying

The tendency of modern military aeroplanes to fly higher, travel faster and to fly more at night raises medical problems in a more acute form than hitherto. The following paragraphs are taken from an issue of "Bulletin of War Medicine," a collection of extracts compiled and edited by the staff of the Bureau of Hygiene and Tropical Diseases.

1. Black-out

The extremely important and highly interesting phenomenon known as "blacking-out" is described. The condition was first encountered by aviators during the period of training for the Schneider Trophy race in 1929, at the time when aeroplanes had developed sufficient speed to produce centrifugal forces greater than 4g while performing sharp turns. "Blacking-out" is sudden, but it does not occur immediately an excess over 4g is applied. There is a period of delay lasting a variable number of seconds, depending on such factors as the amount of "g" applied, the general physical and vasomotor tone of the person concerned and the anticipation of or unpreparedness for the manoeuvre performed. The phenomenon is



BLACK-OUT—THIS DIAGRAM ILLUSTRATES HOW BLACK-OUT IS CAUSED BY CONTINUOUS APPLICATION OF 'g'. IF 'g' IS APPLIED IN THE OPPOSITE DIRECTION A PHENOMENON KNOWN AS 'REDDING-OUT' OCCURS CAUSED BY THE 'CONCENTRATION' OF BLOOD IN THE HEAD

neatly demonstrated in a diagram which is reproduced on this page.

The main effects of high "g" on a healthy man are, first, a feeling of being forcibly pressed into the seat of the aeroplane, then of the abdominal contents being displaced downwards; this is quickly followed by a gradually increasing dimness of the whole visual field, then sudden blindness or "blacking-out" occurs, but consciousness is retained, except in highly susceptible persons such as those with poor cardiovascular tone. "Blacking-out" passes off

as suddenly as it occurs while the loop or turn is being completed at a force less than 4g.

The cause of the phenomenon seems to be the centrifugal effect on the general blood pressure and on the local blood circulation in the central artery of the retina. Thus complete "blacking-out" of vision occurs until the normal blood pressure is readjusted when the centrifugal force falls below 4g. Various preventive measures have been tried, of which the first and obvious one is the maintenance of a high degree of physical fitness. Elastic belts and folding chairs, intended to tighten up abdominal pressure, do not seem to have fulfilled their purpose, while the administration of oxygen does not delay or prevent the onset of "blacking-out," though carbon dioxide has been shown to raise the limit of endurance to "centrifugalization."

Oxygen want or anoxaemia in altitude flying, which may produce a dulling of the judgment and intellect, an unwarranted sense of well-being and security, delayed reaction time, dyspnoea, and muscle weakness, does not usually occur until an altitude of 15,000 ft. has been reached, and then only after the occupants of the aircraft have been at that height for about half an hour, though the time period varies greatly with apparently normal persons. Moderate exercise causes the symptoms to occur much more quickly. Prevention appears to lie in the judicious use of oxygen.

2. Loss of Oxygen at Great Height

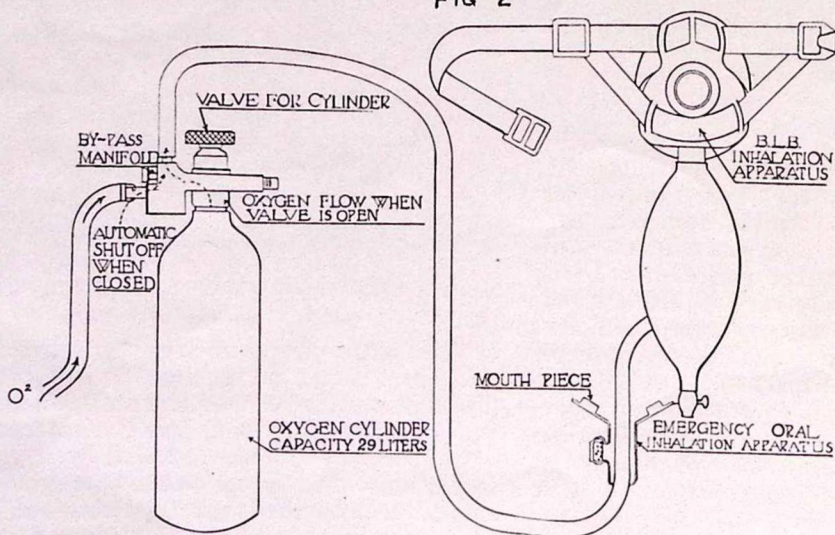
In this paper the authors discuss the physiological problem of a forced rapid descent, without oxygen, from higher altitudes (30,000 to

37,000 ft.) to heights at which there is sufficient oxygen in the air to support human life (18,000 to 20,000 ft.) — a subject which is of topical interest in these days when aerial combats occur frequently at the highest ceilings obtainable in aircraft without the use of pressure suit or pressure cabin. Thus, the aviator may have to bail out of his damaged aircraft, or it may be necessary to bring the aircraft down to levels below 18,000 ft., if the oxygen supply fails as a result of leakage or damage by enemy action or through stoppage of flow due to freezing of water in the oxygen system should the gas not be absolutely dry.

(It has been shown by experiments in the low-pressure chamber, independently by American, British and German observers, that, if the oxygen supply were to fail suddenly and completely at 35,000 ft., a drop would have to be made to 20,000 ft. within one and a half minutes to avoid losing consciousness, even if the individual concerned were sitting quietly; muscular work such as movement would use up more oxygen and so shorten this safety period or "interval of reserve," as Strughold called it.)

The rates of parachute descents have been computed from known physical facts, as well as from actual observations made during descents, mainly by Armstrong and co-workers at Wright Field, Ohio. The rate of descent of a man with an open parachute varies directly with his weight and inversely with the density of the atmosphere, as indicated in tabular form below. On bailing out at 35,000 ft., the rate of free fall will vary. The variation will depend on the speed of the aircraft, but it will rapidly become about 160 ft. per second or 110 miles

FIG 2



FOR USE ON HIGH JUMPS.— ESSENTIAL COMPONENTS OF THE EMERGENCY OXYGEN UNIT WITH EMERGENCY ORAL INHALATION APPARATUS AND B.L.B. AVIATION INHALATION APPARATUS. IT IS INTENDED FOR PILOTS WHO HAVE TO BALE OUT AT GREAT HEIGHTS.

per hour, and this is reduced by the opening of the parachute to about 36 ft. per second or 25 miles per hour at those heights.

The following table is compiled from figures given in the author's text:—

Approximate Rate of Descent of a Man weighing 10-11 stone, with open Parachute, 25 feet in diameter.

Height in Feet	Rate of Fall in Feet Per Minute
35,000	2,160
30,000	1,980
25,000	1,800
20,000	1,620
15,000	1,500
Ground level	1,200

Thus, if an aviator escaped from an aeroplane at 35,000 ft. and opened his parachute rapidly, he would take about ten minutes to reach 20,000 ft., by which time he would probably have died of anoxia. In fact, unconsciousness is apt to occur within five minutes and death within ten minutes at the height of 30,000 ft., if a person is suddenly bereft of his oxygen supply. It will be realized that a valuable part of this reserve time interval is spent in getting out of the aircraft, and that the more severe the muscular exertion in this process the shorter will be the reserve time. A parachutist could reach the safety zone by doing a free fall from 35,000 to 20,000 ft. in one and one-half minutes before opening his parachute, but there is the danger of his becoming too anoxaemic to remember to pull the rip-cord in time.

To help ensure a physiologically safe descent in aircraft, or a safe escape and parachute descent from aircraft, under the conditions outlined above, an emergency oxygen set, which is readily portable, has been devised by Boothby and his co-workers at the Mayo Clinic. (This

set is somewhat smaller and lighter than the type used in the R.A.F. in the ratio of 1½ to 4 lb., and has only half the endurance of the R.A.F. portable oxygen set, which has a capacity of 75 litres of oxygen.) The Boothby set consists of a high-pressure cylinder, 18 cm. long and 5 cm. in diameter, weighing 1½ lbs. when filled, containing about 30 litres of oxygen, and fitted with a valve to ensure correct rate of flow of oxygen.

In emergency, the normal oxygen supply pipe is disconnected from the oxygen mask at the bayonet joint below the bag (see figure), and the oxygen lead pipe from the emergency set is connected immediately in its place by a bayonet fitting. In addition, a rubber mouth-piece is provided, to enable the oxygen mask to be held firmly in the mouth to prevent its being blown off, particularly during the first rush of a parachute descent before the parachute opens. (This is not necessary with the British mask because of the method of fastening and absence of re-breathing bag. The authors have tested their emergency oxygen set in experimental jumps in the low-pressure chamber, but unfortunately not from aircraft in the air.)

A simple method of filling these small portable sets is described. The refilling apparatus consists of a steel tube with yoke fitting for the emergency cylinder and thread fitting for the large oxygen stock cylinder, together with a pressure gauge in the circuit. When both cylinders are securely connected to the steel tube, the valve of the small cylinder should be opened and then that of the large oxygen cylinder turned on very slowly; rapid opening of valve might lead to an explosion from the heat generated. The pressure in the small cylinder is registered on the gauge; when this reaches 1,800 lbs. the valves on both cylinders should be closed.

* * *

Have you tried the latest game currently popular at No. 5 S.F.T.S. . . . D.R.R.'s we call it . . . meaning Daily Routine Rumours . . . qualifications necessary are imagination and the ability to tell a convincing story . . . you have them? Good . . . here we go . . . First you buttonhole the gabbiest airman you know . . . tell him in strict confidence that you heard from good authority that 500 or 5,000,000,000 airmen . . . (note: the number of airmen involved is of small consequence) . . . are being posted to Timbuctoo or Murmansk in Singapore . . . the place doesn't matter much either . . . preferably the further the better . . . you request that he keep said information a dark secret . . . so he immediately repeats your story to all and sundry with slight personal exaggerations . . .

he also requests secrecy . . . within two or three hours it will be common knowledge of the Station personnel . . . in due course the infant you launched will return to you in gigantic proportions. This will in turn make you feel very clever, at having started such a tempest in a teapot . . . What? You don't think this game exciting? Well here are the facts . . . about fifty D.R.R.'s are circulating 'round each week . . . in fact it bids fair to becoming a regular Station sport. We suggest . . . with proper organization and supervision, that this sport will eventually dispense with table tennis . . . softball . . . and route marches . . . the exercise involved and energy expended in chasing all over No. 5 spreading the D.R.R. will suffice to keep excess avoirdupois at a minimum.

TECHNICAL TOPICS

AEROPLANE SALVAGE

Part II.

* * *

INTRODUCTION

An earlier issue of this magazine described a few of the problems which may be met in salvaging aircraft operating over land.

Fortunately, seaplanes and flying boats generally confine themselves to routes over waterways, and the average mechanic is not concerned with them. An occasional amphibian aircraft might land at inland Units and, if by any mischance salvage operations had to be carried out, it merely presents another problem of an unorthodox landplane.

Handling of seaplanes, afloat or on trollies, is an acquired art. There are many operations, especially afloat, such as handling, mooring, ballasting and trimming which have strong nautical tendencies and which are additional duties of the ground crew. In the same way, salvage operations are somewhat different to those required on land. There the machine has come to rest on terra firma, but the problem of the seaplane is sometimes to get it on to a beach or runway before it becomes submerged. Recourse to pontoons, collision mats, etc., may be necessary, and it falls to the lot of the experienced to decide what is required and where the equipment is to be positioned.

However, every skilled seaplane worker may have to make his debut with that type of craft, and it is not out of place to assume that some ex-trainee from St. Thomas may find himself in a similar position. The subject of seaplane salvage in a general sense does not, therefore, appear unsuitable.

Before taking the subject in more detail, let us first consider the precautions necessary for any type of aircraft which has alighted in a damaged condition on water.

SALVAGE OF AEROPLANE FROM WATER

Salvage of aeroplanes from water without causing considerable damage to them is in many instances an extremely difficult task. The procedure will, of course, depend upon the type of aeroplane concerned, the state in which it is found, the prevailing weather and water conditions and the available equipment and personnel in the form of marine craft and experienced crew. In the event of an aeroplane

crashing on water the wreckage should, if possible, be towed ashore before further salvage operations are commenced. In this instance it will be found that highly inflammable items such as petrol, etc., are floating on the water and causing imminent danger to approaching marine craft. This danger may spread over a large area and it is therefore of the greatest importance to take adequate precautions to prevent fire. Marine craft should not enter the affected area under power; and, if necessary, the wreckage should be approached by means of dinghies or other suitable craft. When operating in darkness only lights of a safe electric type should be used until it is ascertained that other means of illumination can be employed with safety.

Salvage of Seaplanes—The salvage procedure applicable to seaplanes can be divided into two classes, i.e., for those that have made a forced descent and have suffered little or no damage, and for those that have crashed or have become wrecks owing to heavy seas. In the case of a flying boat or float seaplane which has alighted without damage to the buoyancy compartments, the procedure, apart from adverse conditions, is a comparatively simple operation consisting of taking the seaplane in tow, but precautions should be taken to ensure that the crew of the marine craft employed are competent in the method of approach, and also that the towing lines are attached to the correct components of the seaplane (see relevant aeroplane handbooks). In the case of adverse weather conditions the method of approach and the towing of the seaplane is a matter of seamanship, and it is of the greatest importance that only personnel competent in this direction are employed throughout the procedure.

The salvage of a crashed or wrecked seaplane will be entirely dependent upon the conditions prevailing. In all instances a mark buoy, with ample mooring line, should be made fast to the wreckage as soon as possible. If the seaplane is a submerged wreck drifting in a heavy sea, it may not be possible to attach a line except by encircling the wreck and sinking a line around it. If a portion of the wreck is above water, the line should be made fast to a sufficiently strong part of the aeroplane to withstand the towing load. Attempts to tow a wreck by members of the structure unequal to the load add to the damage and render the

work of salvage more difficult. Flying boats can usually be towed by their towing bridle or the handling-eye under the stern of the hull; float seaplanes by the cross struts of the undercarriage if intact, the engine bearers, lifting slings or the airscrew boss. The wreck should be towed very slowly to the nearest sheltered water or to the lee of a ship. The operation of lifting the wreck out of the water should proceed very slowly to allow the water to drain from the various components; suitable holes to assist drainage should be made in the components as soon as they appear above water.

Salvage of Landplanes from Water — Rapidity of action in arriving to the assistance of a distressed landplane at sea will considerably lessen the risk of total loss by sinking. In instances where the aeroplane is not equipped with flotation gear, or is in imminent danger of sinking, a mark buoy or salvage pennant with ample mooring line should be attached as soon as possible to a convenient component, such as the engine bearers or the airscrew boss, strong enough to withstand the load applied when supporting the aeroplane during later operations.

Landplanes operating over water are, with few exceptions, equipped with some form of flotation gear which will keep them afloat for long periods in the event of a forced descent. Apart from precautions to be taken to avoid damage to the flotation gear, the procedure for the salvage of these aeroplanes is similar to that employed for seaplanes. The flotation gear is a fragile structure usually employing unprotected air bags as the buoyancy components. These bags can be easily holed by the careless use of marine craft equipment or when attaching towing lines to the aeroplane concerned. Towing operations should be undertaken with care and at a slow speed to ensure that the bags are not subjected to unnecessary buffeting. This precaution particularly applies during adverse weather conditions, in which event the aeroplane should be towed into the nearest sheltered water or to the lee of a ship.

Buoying Up Sinking Aeroplanes—An aeroplane may be buoyed up by the aid of seaplane floats, empty petrol cans, small barrels and kegs, or dinghies lashed to appropriate components. Proper buoying will facilitate the salvaging and towing of derelict aeroplanes. Buoying material should, if possible, be placed under the lower main planes near the root and lashed to the main spars. If this is impossible, it should be lashed above the lower and below the upper planes in the same position. To facilitate towing, the buoyancy material employed should be

placed as near as possible in the fore and aft line.

In the event of an aeroplane sinking before it can be salvaged, the position where it has sunk should be marked by means of a buoy with ample length of mooring rope attached to a heavy sinker. If, for any reason, this mark buoy is left unattended, cross bearing should be taken on prominent objects in the vicinity which will enable the position to be located should it be decided to drag the bottom in an endeavor to continue salvage work.

Aeroplanes Immersed in the Sea—One of the most active corrosive agents against which aircraft have to contend is salt water. Effective anti-corrosive treatments are applied against this with seaplanes and flying boats, but an aeroplane in salt water is definitely out of its normal sphere, and the following procedure should be taken to prevent rapid progress of the corrosion when it has been removed from the water. Rapidity of action is one of the foremost factors in the prevention of corrosion and, circumstances permitting, the activities of all personnel of suitable trades should be diverted from other work to the application of the measures given here when the emergency arises. Immediately an aeroplane has been taken out of the water, the following anti-corrosive measures should be taken:

Airframe — (i) the fabric components are removed, the fabric being ripped open in the first instance to permit as much salt water as possible to be drained away. This action should be followed by the removal of the whole of the fabric and the washing down of accessible metal parts with hot water. These parts are then to be thoroughly dried.

(ii) The fuselage should be opened up and drained. Accessible metal parts should be washed down with hot water and thoroughly dried.

(iii) Care should be taken that salt water is drained from all hollow members into which it may have penetrated; and, where possible, hollow members should be flushed through with hot water.

(iv) Tanks should be drained, any padded holding down straps eased off and the tank lifted from the padded cradle to ensure that the padding does not remain in contact with the tank shell. The tanks should also be flushed with hot water and dried.

(v) After drying, any corrosion evident should be removed with a paraffin-soaked rag and the affected parts treated with an authorized rust preventive.

Aero-engine—The aero-engine should be removed from the airframe and completely dismantled. All parts should be submerged and washed in paraffin. Normal overhaul action should follow and the aero-engine should then be brought into use in the normal way.

Armament—(i) Guns should be taken out and completely dismantled. All parts should be submerged and washed in paraffin. Normal cleaning and reassembling should follow, after which the guns should be brought into use again.

(ii) Bombracks, etc., should be removed, immersed in hot water, and dried. After drying, any corrosion evident is to be removed by a paraffin-soaked rag, and the parts treated with an authorized rust preventive.

Instruments—Instruments, other than wireless instruments, should be taken out, washed in hot water, dried and immersed in oil, lubricating, anti-freezing, and then returned to the appropriate stores depot. Where it is suspected that salt water has gained access to the interior of the instruments, the bezel should be removed prior to the commencement of the above operations.

Wireless and Electrical Gear—Wireless and electrical gear should be taken out, immersed in warm water (approximately 160° F.) for two seconds and dried immediately, both inside and outside, by means of a hot air blower. The gear is then to be returned to the appropriate stores depot.

Photographic Gear—(i) Films or plates should be taken out immediately and destroyed, unless it is known that they have been exposed during the flight, when they should be handed to the photographic officer for immediate development. They should be well washed before the development process is undertaken.

(ii) Cameras and accessories should be dismantled. Mechanical parts should be immersed in hot water, dried, and then submerged in oil, lubricating, anti-freezing. The remaining parts are to be washed in hot water, dried by means of a hot air blower and then treated with rust preventive. Care is to be taken that the rust preventive does not come in contact with the lens.

(iii) The complete camera and accessories should then be returned to the appropriate stores depot.

SALVAGE OF INSTRUMENTS—GENERAL

Stress has been laid to the prompt and careful action to instruments installed in aircraft of definite military value, yet the need for care is no less necessary with engine and flying

instruments, whether they be retrieved from an aircraft on water or on land.

It has been found that careful handling and removal of equipment from aircraft being salvaged can, in itself, save thousands of dollars annually. This equipment is examined by experts capable of determining faults and extent of damage. The badly damaged items are probably returned to Stores Depot for further examination, whilst others may be repaired on a Service Repair Depot where facilities exist. Capillary tubing to recording instruments should not be severed unless absolutely necessary. The wires of thermo-couples, if cut, will involve re-calibration. These are two simple illustrations where over-enthusiasm to get on with the main job of salvage may result in additional wastage. Only where it is absolutely impossible to reach or loosen attachment bolts should further damage occur, and then only with the consent of the N.C.O. in charge of the party, who will decide if it is absolutely necessary to remove the equipment at that stage.

SLINGS

A few words on slings would be appropriate. Avoid working under slung loads if possible, and if it is not possible to completely swing the load to the required position, pack up the slung article as far as possible before working underneath. Avoid swaying the load as this increases the loading, and always keep a sharp lookout on whatever slings are being used.

Standard aero-engine slings designed for the various types, if not available, can be made up from wire rope, shackles, rings, thimbles, hooks, etc. Slings intended for use on the airframe are also included in the equipment of many types of service aeroplane; but in instances where these slings are not available, or are unsuitable for immediate requirements, temporary slings should be made up from the components mentioned above.

When constructing temporary slings, a pattern, made from kite cord or other similar material, should first be designed, after which the actual sling should be constructed to the dimensions of this pattern. To design a pattern, cords should be attached separately to the various points at which it is decided to take the lift, after which they should be brought together at the central point above the object to be lifted, and attached to a suitable ring. The application of this method will ensure that the ropes of the sling are kept clear or passed through components that would otherwise be damaged, and at the same time will indicate the correct dimensions to which the sling should be constructed.

Lifting operations when using slings should be undertaken with great care and forethought. It is of the greatest importance to ensure that the material employed is strong enough to carry the load together with a sufficient margin to withstand a considerable overload that may arise in emergency. If possible, a vertical lift should always be taken and it is therefore important to ascertain that the lifting tackle is correctly positioned over the slinging points; the employment of a plumbline can be used with advantage to obtain this position. The load should be gradually and evenly applied to avoid all jerking movements which are liable to impose three or more times the actual load to be lifted. Wire rope should not be bent

sharply at points where it comes into contact with the load, but should be packed with hard wood or other suitable material to give the rope a gradual bend. The load in the slings should not be applied longer than is absolutely necessary. If, for any reason, the operations are delayed, the item concerned should either be lowered again or supported by means of trestles or other suitable equipment.

In conclusion, it is emphasized that salvage work brings out the ingenuity of every tradesman not only to achieve the end of removing an inert aircraft, but of doing so in such a manner that serviceability is preserved as much as possible.



OFFICIALS LIST RESTRICTIONS FOR LETTERS

Despite repeated warnings from Headquarters and by various Station authorities, despite all the propaganda releases by the official publicity departments, information prejudicial to the safety of Air Force personnel sometimes leaks out.

In enemy hands this information inadvertently disclosed in most cases, seriously endangers the lives of members of the armed services crossing to the scene of battle; and in other cases delays and disrupts plans of the Allied forces. Much of the information leaks out in ill-advised letters and telephone conversations, officials state.

Personnel proceeding to embarkation points have been advised of restrictions on correspondence. Photographs at sea or at port are forbidden, while any reference in letters to port or date of embarkation, route of travel, name of ships, size of convoy, enemy attacks or losses sustained, naval escorts, nature of cargoes, number of personnel or the port or date of embarkation is prohibited.

Telephone conversation should be watched accordingly, and no information of any nature should be imparted to undisclosed questioners. In any case, official information can be issued only by those in authority. Penalty for breaches of these regulations, authorities state, is destruction of correspondence by censors, and may result in charges being laid for disobeying an order, a court-martial offence.

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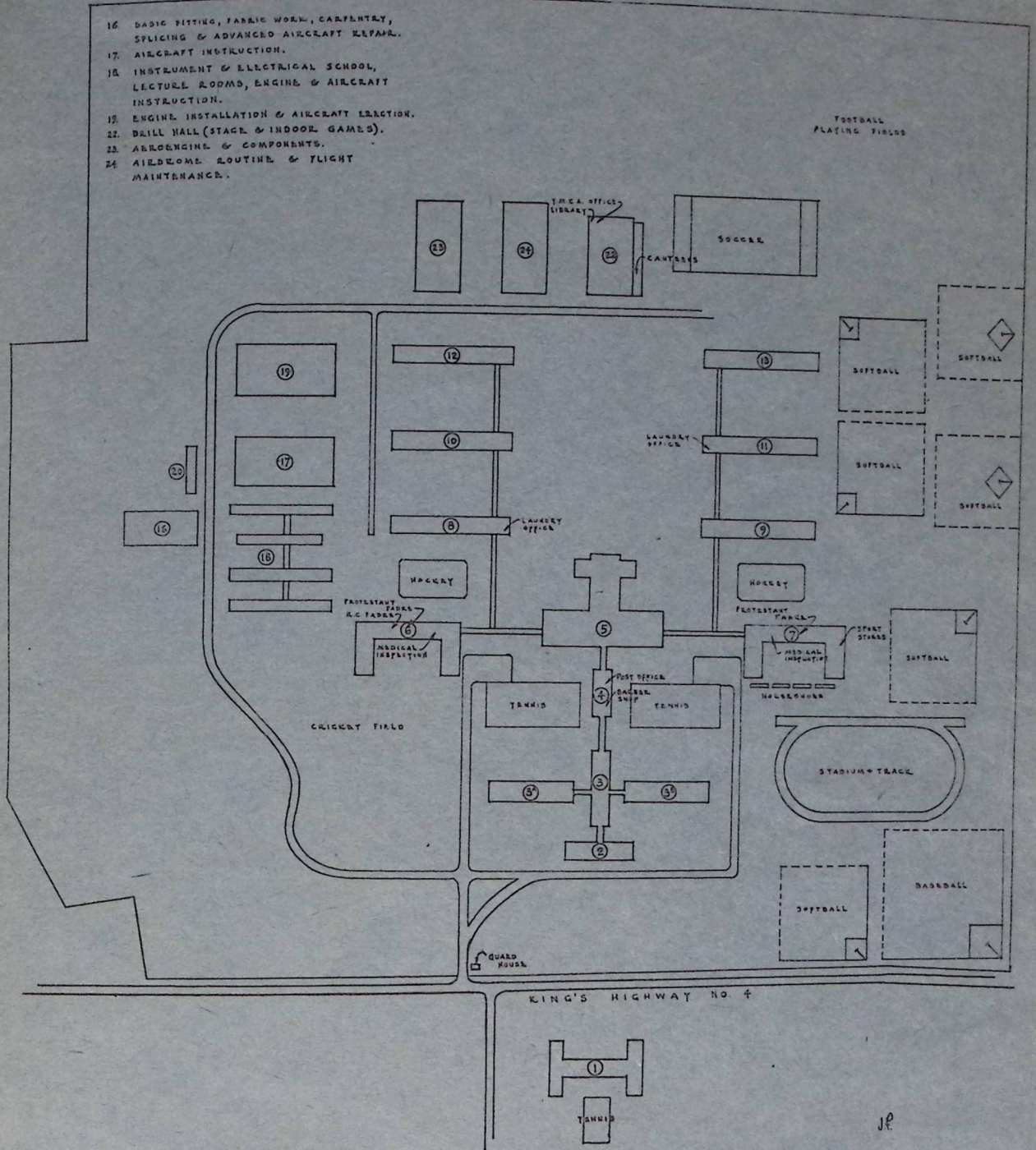
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