

**THE  
HARLOVIAN**

**The Magazine of  
Harlow College,  
Essex**

Vol. 9 No. 10

Summer, 1940

# THE HARLOVIAN

Vol. 9, No. 10

SUMMER, 1940

## SCHOOL OFFICERS

*Captain of the School:* C. J. Ansell.

*Prefects:*

C. J. Ansell, J. H. Elphick, M. F. Willy, W. D. Engeham,  
D. Willmott, C. F. Copleston.

*Sub-Prefects:*

R. A. Spicer, J. Barrow, J. M. S. Jackson, E. J. Forbes,  
A. J. Ritchie.

*Cricket Captain:* J. H. Elphick.

*Vice-Captain:* M. F. Willy.

*Cricket Sub-Prefect:* G. G. Seif.

*Captain of Beatty House:* J. H. Elphick.

*Captain of Nelson House:* M. F. Willy.

*Captain of Rodney House:* D. Willmott.

*Captain of Keyes House:* C. F. Copleston.

## SCHOOL NOTES

*Oxford School Certificate.* The following candidates gained School Certificates in the examination held in July: C. J. Ansell, J. Barrow, C. F. Copleston, W. D. Engeham, E. J. Forbes, J. M. S. Jackson, G. Phillips, A. Ritchie, R. A. Spicer, F. E. Whitby, A. J. Tilley, M. F. Willy. Of these, Forbes, Phillips, Tilley and Whitby gained exemptions from London Matriculation, the last named with seven credits. The average number of credits per candidate was 4.36.

\* \* \*

*Old Harlovians' War Memorial.* The War Memorial Literature Prizes for the Summer Term were awarded as follows: Vb (1) Williams i, (2) Dodd; IV (1) Barham, (2) Leevers, (3) Perring i; U.R. (1) Sheppard, (2) Graham ii, (3) Dawes;

L.R. (1) Hasler, (2) Davies, (3) Congden; III (1) Tinney, (2) Overton, (3) Lack.

*Speech Day.* Owing to prevailing conditions the usual Speech and Sports Day was not held this year. The Sports were run off privately during the middle of the term, and the results will be found on another page of this issue. The School Prizes were presented by the Headmaster in the Gymnasium on the last day of the term, the winners of the Form Prizes being as follows:—Va, Forbes i; Vb, Dodd; IV, (1) Stephenson, (2) Spicer ii; Upper Remove, Gardiner; Lower Remove, Perring ii; III, Baggott i; II, Drain; I, Baggott ii; Seabrook Memorial Prizes for Mathematics: (1) Forbes i, (2) Stephenson; Handwork Prizes (Forms I and II), Desprez, Smith ii. The names of the English Literature Prizewinners for the first two terms of the year have already been published.

On this occasion prizes were given in the shape of War Savings Certificates, or portions, instead of the usual books.

*War Effort.* In many and various ways the boys of the school have played their part in the local war efforts. Primarily, in the matter of War Savings, the Penny Bank, run in conjunction with the Harlow and District National Savings Group, reached the figure of £125 by the end of the term. As the Bank was formed in the early part of March this represents the savings of about four months. A half holiday was granted to mark the putting up of the "100."

In the grounds the senior and middle boys "dug for victory" and converted a waste piece of ground behind the Headmaster's house into a vegetable garden which has produced many potatoes.

The Scouts continued their good work in the matter of paper salvage, and we hear that more than £40 has been handed to the Red Cross by the depot to which they take the school waste paper. So there appears to be some value, after all, in a Latin exercise, however much red ink it may have on it! The metal salvage of Harlow, including that in aluminium, was chiefly in the hands of the boys, who, with a "little help" from Mr. Taylor, completely dismantled a car and took its interiors down to the dump.

In many other minor ways the boys gave their help to local organizations, offering themselves as "corpses" to the Ambulance Division in their practices, acting as stewards in charity bridge drives, and so on, while our artist, Ritchie, left his mark in the High Street on the War Savings Ladder.

On the whole, however, the boys had not very much spare time to offer for service, since the work of the term proceeded as in normal times, and the only marked difference between the first war-time summer term and its predecessors was the lack of cricket matches.

## RESULTS OF ROYAL DRAWING SOCIETY EXAMINATION, MAY, 1940

### HONOURS

*Preparatory:* M. J. Baggott, R. C. Marshall, A. G. Hunt.  
*Division I:* M. S. Perring, R. J. Russell, M. J. Baggott, L. A. Butcher, R. A. Payze. *Division II:* B. E. Power, A. J. Soper.  
*Division III:* J. S. Collins, J. Rolstone, R. A. Spicer, G. Seif, M. Willmott. *Division IV:* T. F. H. Cullum, J. H. Dellow, A. H. Elwell, D. R. Firkin, C. T. B. Hockley; D. L. Willmott.  
*Division V:* J. P. Elwell, E. J. Forbes.

### HONOURS STANDARD

*Preparatory:* H. R. G. Ashby, H. L. Bernie, D. Collins, J. R. C. Congdon, R. Engeham, R. C. Fellgett, A. J. Findlay, I. D. Gardiner, P. V. Hahn, E. W. Hasler, M. Camp, H. A. Koch, J. I. Kittle, D. S. Laurie, K. N. Leever, A. J. Peacock, M. S. Perring, G. E. Short, R. Smith, P. J. Stone, J. W. Sutton, P. F. Taylor, D. Tickner. *Division I:* H. L. Bernie, J. E. Cook, D. Furze, I. D. Gardiner, J. O. Gemmill, P. V. Hahn, E. W. Hasler, J. I. Kittle, C. Mynott, R. Smith, J. W. Sutton, P. E. Tapley, P. F. Taylor, D. Tickner. *Division II:* S. G. Biss, K. Clarke, J. J. C. Cocks, R. A. Collins, C. Coppleston, E. S. Davies, G. E. Dodd, D. N. Franklin, T. G. Glasse, A. C. Goozee, R. N. Grundy, P. J. Hipwell, C. T. B. Hockley, J. H. Holloway, R. E. Hullett, G. Kelly, J. S. Power, D. N. Rees, D. J. Smith, R. Smith, F. Stephenson, J. W. Sutton, D. M. Williams. *Division III:* D. Camp, K. Clarke, C. Coppleston, R. J. Emery, C. T. B. Hockley, J. H. Holloway, G. M. Phillips, J. S. Power, F. E. Whitby. *Division IV:* K. Clarke, J. M. S. Jackson.

### PASS

*Division III:* R. H. Chapman, G. E. Dodd, J. H. Elphick.  
*Division V:* J. H. Dellow, D. R. Firkin. *Division VI:* J. P. Elwell.

### SALVETE

Abbey, P. O.; Basket, J. P.; Bradshaw, D. M. A.; Chaney, M. K.; Chapman, Josephine M.; Crussell, P. J.; Davies, E. J. T.; Kemp, J. H.; Stammers, L. J.; Stubbing, T. J.

## VALETE

Daynes, H. G. L.; Gane, R. A.; Grant, I. G.; Harvey, P. J.; MacGarry, I. R.; Mason, G. G. R.

## HARLOW COLLEGE SPORTS

*Reprinted from the "Herts and Essex Observer," Saturday 29th June, 1940.*

Harlow College Athletic Sports were held on the school field during the week ending June 22nd. War-time conditions necessitated the cancellation of the usual Speech and Sports Day, and the sports events were either team or relay. Individual running, therefore, cannot be analysed, but mention may be made of competitors in the high and long jumping. The latter produced only mediocre results, but in the former the performances were of a much higher standard. In the over 14 division Elphick cleared 5 ft. 0½ in., whilst the best 12 years-14 years was Wilmott ii's 4 ft. 5 in. A ten-year-old boy, Channon, gave an excellent exhibition of clean jumping in the 10 years-12 years division, eventually clearing 4 ft.

Every event was keenly contested and Beatty House only made sure of the Ansell Cup on the last day of the sports.

## RESULTS

(B) denotes Beatty House, (K) Keyes House, (N) Nelson House and (R) Rodney House.

4×110 yards, over 14.—1 R (Wilmott i, Tilley, Rees, Whitby), 2 B, 3 N, 4 K. 12—14 years.—1 B (Firkin, Dawes, Hullett, Franklin), 2 N, 3 K, 4 R. 10—12 years.—1 B (Channon, Bruck i, Chambers, Buist), 2 N, 3 R, 4 K.

4×220 yards, over 14.—1 B (Elphick, Cullum, Jackson, Goozee), 2 K, 3 N, 4 R. 12—14 years.—1 K (Elwell, Laurie, Glasse, Graham i), 2 B, 3 N, 4 R. 10—12 years.—1 R (Soper, Payze, Warboys, Perring ii), 2 B, 3 N, 4 K.

2×440 yards, over 14.—1 R (Wilmott i, Rees), 2 K, 3 B, 4 N. 12—14 years.—1 K (Elwell ii, Gilbert i), 2 B, 3 N, 4 R.

2×880 yards, over 14.—1 B (Elphick, Jackson i), 2 R, 3 K, 4 N. 12—14 years.—1 K (Laurie, Gilbert i), 2 B, 3 N, 4 R.

One Mile (team race).—1 B (Elphick, Goozee, Jackson i), 2 K, 3 R, 4 N.

High Jump, over 14.—1 B (Elphick, Jackson i, Bernie), 13 ft. 8½ in., 2 K and R level, 13 ft. 6 in., 4 N, 13 ft. 1 in. 12—14 years.—1 R (Wilmott ii, Stone, Muffett), 11 ft.

10 in., 2 B, 11 ft. 7 in., 3 N, 11 ft. 5 in., 4 K, 11 ft. 3 in. 10—12 years.—1 R (Soper, Payze, Perring ii), 10 ft. 11 in., 2 B, 10 ft. 9 in., 3 N, 10 ft. 5 in., 4 K.

Cricket Ball, over 14.—1 N (Willy, Stephenson), 2 B, 3 R, 4 K. 12—14 years.—1 R (Stone, Wilmott ii), 2 N, 3 B, 4 K. 10—12 years.—1 N (Newton, Robertson), 2 K, 3 B, 4 R.

Long Jump, over 14.—1 B (Elphick, Jackson i, Cullum), 46 ft. 5½ in., 2 R, 45 ft. 6½ ins., 3 K, 45 ft. 3 ins., 4 N, 43 ft. 3 ins. 12—14 years.—1 B (Firkin, Dawes, Hullett), 39 ft. 3 in., 2 N, 39 ft. 1¾ ins., 3 R, 37 ft. 8 in., 4 K. 10—12 years.—1 B (Channon, Chambers, Buist), 34 ft. 6 in., 2 R, 32 ft. 11 in., 3 N, 30 ft. 6 ins., 4 K, 27 ft. 6 ins.

## HOUSE POINTS

Beatty 62½, Rodney 49, Nelson 43, Keyes 36½.

## JUNIOR SCHOOL SPORTS

The Junior School Sports were held on Tuesday. Following are the results:—

80 yards (under 9)—1 M. Laurie (K), 2 Williams ii (N), 3 Davison (B), 4 J. Chapman (K).

80 yards (open)—1 Tinney (R), 2 Desprey (B), 3 Parnell (N), 4 Chaney (B).

Long Jump (under 9)—1 Warr (N) and Baggott ii (B), 8 ft. 10 in., 3 Stubbing (N), 4 M Laurie (K).

Long Jump (open)—1 Tinney (R), 11 ft. 4 in., 2 Wilkins (N), 3 Chaney (B), 4 Desprey (B).

Sack Race (open)—1 Davison (B), 2 Tinney (B), 3 M. Laurie (K), 4 Parnell.

High Jump (under 9)—1 M. Laurie (K), 2 Warr (N), 3 Williams ii (N), 4 Davison (B).

High Jump (open)—1 Cowie (B), 2 Grimshaw (K), 3 Parnell (N), 4 Desprey (B).

## HOUSE POINTS

Beatty 17, Keyes 15, Nelson 17, Rodney 11.

Final position of Houses—1 Beatty, 79½ points (winners of Ansell cup); 2 N and R, 60 points; 4 Keyes, 51½ points.

## SCHOOL GAMES

With air attack imminent, but fortunately not apparent, fixtures were drastically cut. The games played, however, were enjoyed possibly more than usual owing to their scarcity.

*May 25th v. Newport (away). Lost.*

Always a strong batting side, Newport disappointed in only obtaining 68 runs. This was so unexpected that our batting was careless and except for Ansell (17) was colourless. As a result we could only collect 44 runs.

*June 8th v. R. Prior's XI (home). Won.*

After a disastrous start (4 wickets for 17), excellent batting by Willy (17), Elphick (17) and Ansell (28) produced a sound total of 102. To this our visitors could only record 51, Willmott ii taking 5 wickets for 13 runs.

*June 29th v. Newport (home). Won.*

On a crumbling wicket Newport collapsed against the bowling of Willmott ii (5 for 15) and Elphick (4 for 9), who bowled unchanged. No batsman reached double figures and their total was 25. We fared a little better and passed their total for the loss of six wickets, eventually reaching 43 runs. In a second knock of three-quarters of an hour each way Newport obtained 50 runs for 7 wickets, whilst we obtained 72 runs for 8 wickets.

*June 22nd v. Chigwell School (under 14 XI). Lost.*

An easy win for Chigwell who had the better of the weather, batting first after a shower. Score: Chigwell 80 for 7, School 27.

*June 27th v. Waterside (under 14 XI). Won.*

An easy win mainly owing to Hullett (43) and Graham i (30 not out). Score: Waterside 26, School 89 for 6.

*July 13th v. Chigwell (under 14 XI). Won.*

Excellent bowling by Willmott ii (8 for 11) and sound fielding enabled us to dismiss our opponent for 44 runs. Thanks to a steady start by Engeham ii and Bristoll, followed up by Williams i and some hard hitting by Muffett, we obtained 104.

*1st XI averages.*

Batting: Ansell 15.6, Elphick 11.6. Bowling: Willmott ii 3.7, Elphick 5.7.

## TEAM CRITICISM

J. Elphick (Capt.).

M. Willy (Vice-Capt.).—A much improved bat. Not bowled enough.

J. Ansell.—A forcing bat with a very good eye. Given colours.

Engeham i.—A rather nervous bat but a very useful change bowler.

Willmott i.—A fair bat. Fielding good.

Seif.—A very good bat but unlucky. Wicket keeping fair.

Willmott ii.—Left-hand bat. Can be good. Bowled well and on his day is unplayable.

Jackson i.—Too prone to get lbw, but good on the leg side.

Whitby.—A forcing bat but will not wait for the right ball.

Stephenson.—Can play good cricket but is apt to mow on occasions. A useful change bowler.

Rolstone.—A very disappointing season. Has great possibilities however.

### *Home Matches*

The lack of 1st XI matches did not spoil the keen spirit in the house games. In fact, the majority of the games were entered into with real zest. Only where the result was a foregone conclusion after the first few overs did interest pall. So close were the games that towards the end of the season a very interesting situation presented itself. With three games to be played Beatty, Rodney and Nelson were level on points and the three remaining games were Beatty v. Rodney, Beatty v. Nelson, and Beatty v. Keyes. The latter was an almost certain win for Beatty, so if Nelson could beat Beatty, and Rodney beat Nelson, a tie would ensue. The first of these games, Nelson v. Rodney, provided an easy if unexpected win for Rodney; so if Nelson could only win against Beatty the three would be level. The eagerly awaited game took place on the 4th of July, and Nelson batted first and rather painstakingly amassed the total of 60 runs—not a large score but passable on the college wicket which is apt to be very tricky at times. Beatty, however, had different ideas about that score of 60, and from the first played bright open cricket, and with only five wickets down the score stood at 59. The Nelson score was soon passed but against good bowling the rest of the wickets fell for 17 runs. Thus ended the Nelson hopes and the victory gave Beatty an easy chance to obtain a lead

over Rodney. This they took and became a champion house for the first time for three years.

The order and points were:—1 Beatty, 10 points; 2 Rodney, 8 points; 3 Nelson, 6 points; 4 Keyes 0 points.

#### REPORTS ON THE MATCHES

*May 14th. Rodney v. Keyes. Rodney won.*

Rodney skittled out for 27 but Keyes was even worse, only amassing 22, 6 of which were extras. (Emery 4 for 9, Hockley 5 for 8, Willmott ii 7 for 6.)

*May 20th. Keyes v. Beatty. Beatty won.*

With the help of five extras, Keyes' total reached only 14. Beatty, batting carelessly, obtained 47 for 8 wickets. (Elphick 6 for 2, Ansell 13 not out, Elphick 19 not out.)

*May 24th. Nelson v. Keyes. Nelson won.*

Nelson, batting first, declared at 67 for 7 wickets and easily obtained the wickets of Keyes for a meagre 18 runs. (Seif 28 not out, Willy 6 for 5.)

*May 27th. Beatty v. Rodney. Beatty won.*

In spite of a lively 23 from Willmott ii and 12 extras Rodney could only obtain 58 runs. Beatty owed all to Elphick who obtained 76 not out, the rest of the side only scoring 14. (Elphick 7 for 23.)

*May 30th. Nelson v. Rodney. Nelson won.*

Rodney collapsed surprisingly against lively bowling and Nelson easily passed Rodney's total of 21. (Engeham i 5 for 3.)

*June 3rd. Rodney v. Keyes. Rodney won by 40 runs to 12.*

(Emery 7 for 18, Willmott ii 6 for 5, Willmott 4 for 7.)

*June 10th. Nelson v. Keyes. Nelson won.*

Nelson took things rather too easily but with some excellent bowling by Willy won the game. (Willy 18, Hockley 3 for 10, Willy 7 for 5.)

*June 12th. Rodney v. Beatty. Rodney won.*

A very exciting game with the result in doubt up to the last moment. Rodney compiled 63 runs. (Whitby 31 not out.) Beatty, after an excellent start, had 9 wickets down for 50 runs. Then, however, there was a last wicket stand and they

were within a run of Rodney's total when Bernie was bowled for an excellent if not classic 18. (Willmott ii 5 for 24, Elphick 5 for 33.)

*June 12th. Nelson v. Beatty. Beatty won.*

Another very close game won by three runs, with the issue in doubt up to the last moment. Good bowling by Elphick (7 for 19) enabled Beatty to win. (Ansell 17, Rolstone 18.)

*July 2nd. Nelson v. Rodney. Rodney won.*

Nelson's chance of championship honours faded with this defeat. To Rodney's 51 they could only scrape together 17. (Willmott i 6 for 5, Willmott ii 4 for 8.)

*July 4th. Nelson v. Beatty. Beatty won.*

Another very good game (reported elsewhere).

*July 6th. Beatty v. Keyes. Beatty won.*

Easy win for Beatty. (Elphick 8 for 3, Elphick 21, Ansell 13, Emery 6 for 34.)

#### HOUSE BATTING AVERAGES

	Runs	Average
1. Elphick (B) .. ..	144	36
2. Ansell (B) .. ..	79	15.8
3. Willmott ii (R) .. ..	71	11.8
4. Sief (N) .. ..	53	10.6
5. Whitby (R) .. ..	44	8.8
6. Stephenson (N) .. ..	35	8.7
7. Cullum (B) .. ..	30	7.5
8. Rolstone (N) .. ..	44	7.3
9. Jackson i (B) .. ..	36	6.0
10. Willy (N) .. ..	32	5.3

#### HOUSE BOWLING AVERAGES

	runs	Average
1. Elphick (B) .. ..	41 wickets for 98	2.3
2. Willmott i (R) .. ..	18 .. 47	2.6
3. Willy (N) .. ..	30 .. 88	2.9
4. Willmott ii (R) .. ..	25 .. 92	3.6
5. Hockley (K) .. ..	17 .. 85	5.0

## SWIMMING SPORTS

Informal swimming sports were held on the last day of the term, and the cup for diving, presented by Miss Horsey and now known as the "Nicholas" Cup, was won by Willmott i.

### RESULTS

#### Juniors

50 yds. Free Style.—1 Perring i, 2 Gardiner, 3 Williams i.

50 yds. Breast Stroke.—1 Dawes, 2 Hahn, 3 Muffett and Valder.

House Relay.—1 Nelson, 2 Rodney, 3 Beatty.

Long Plunge.—1 Sandell, 2 Cook, 3 Hahn.

#### Seniors

50 yds. Free Style.—1 Elphick, 2 Holloway, 3 Coplestone.

50 yds. Breast Stroke.—1 Coplestone, 2 Willmott, 3 Emery.

Medley Style.—1 Holloway (substitute for Coplestone),  
2 Goozee, 3 Emery.

House Relay.—1 Beatty, 2 Keyes.

Diving.—1 Willmott, 2 Goozee, 3 Elphick.

Long Plunge.—1 Coplestone, 2 Elphick, 3 Willmott.

Learners' Race.—1 Laurie, 2 Kittle, 3 Russell.

House Totals.—Beatty 23, Keyes 23, Rodney 14½, Nelson 16½.



## BUILDERS OF MODERN AIRCRAFT

### AERONAUTICAL ENGINEERING AS A CAREER

[Based on information kindly supplied by C. H. Roberts, Esq., A.I.A.E., Principal of the College of Aeronautical Engineering, S.W.3.]

The first impression which the word "Aeronautical" conjures up in the mind's eye is definitely one of romance. The age-old struggle of man for the mastery of the elements has culminated in the development and perfecting of all modern forms of transport, of which Aviation is the most recent expression. The average schoolboy pictures himself, no doubt, in a similar role to that of J. A. Mollison on his epic flights across the Atlantic, to Scott and Black on their record dash from Mildenhall to Australia, or perhaps as the senior pilot of a stately air liner, responsible for the safe transport of passengers and mail.

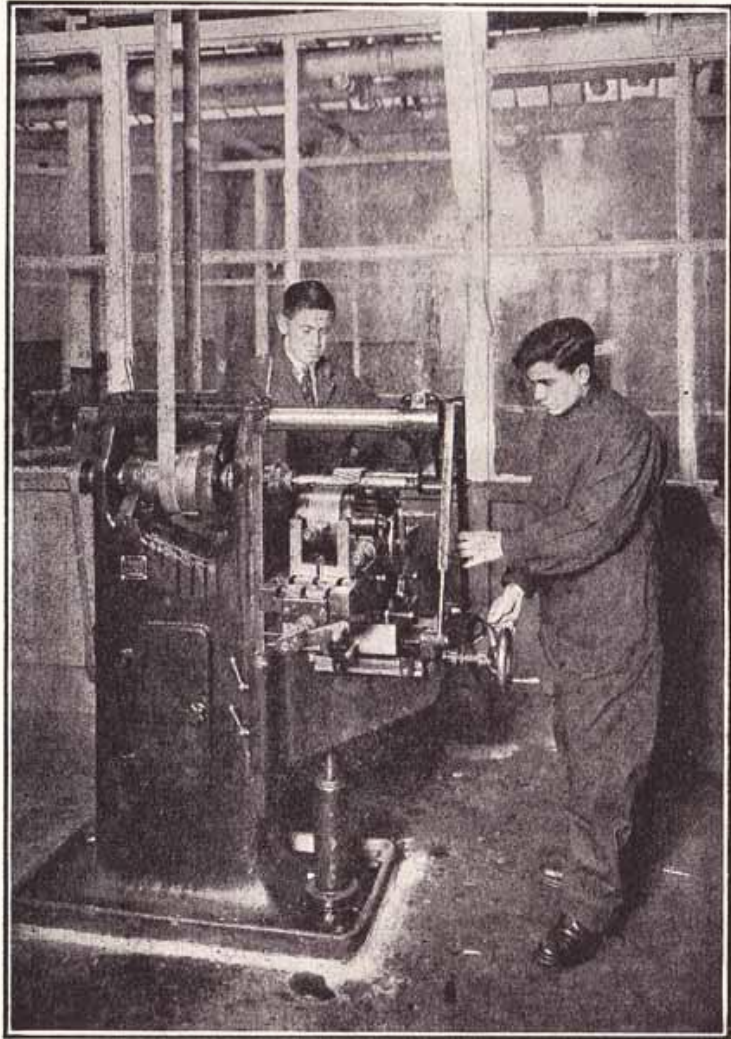
Alternatively the idea of speed may have captured his imagination, racing seaplanes engaged in Schneider Trophy contests, or attacking world speed records, the flashing dive of a high speed military fighter, or perhaps the precisely executed evolutions of aerobatics.

#### The Men behind the Pilot

The pilot, however, is only the final link in a vast chain of human activity which culminates in the beautiful machine which awaits the skilled touch of the pilot's hands to bring it to vibrant and pulsating life and activity. In the first instance the designer is usually a man of exceptional ability and long experience, he is equally *au fait* with the latest results of experiment and research, as well as with the practical difficulties which will arise during the production of the machine in the shops.

In the realms of pure research the physicists are engaged on investigation into aerodynamical problems, and experimental observations of the behaviour of model or full-size aircraft in wind tunnels.

The chemists are investigating new types of alloy steels, or light alloys of aluminium and magnesium, with the object of reducing the ratio between power and weight.



UNIVERSAL MILLING MACHINE

The use of the milling machine is a part of the training which students undergo in an Aeronautical Engineering College. They are initiated into the mysteries of mounting cutters and end mills, the speeds of cutters and the feeds for various metals. They must master the difficult art of cutting gear teeth, upon the accuracy of which depends the efficiency of the engine.

The preliminary designs involve the employment of draughtsmen, stress calculators, planners and estimators.

Very definite regulations are laid down by the Air Ministry with regard to the structural requirements of aircraft, and a very minute system of inspection is in operation under the Aeronautical Inspection Directorate of the Air Ministry.

Before an aircraft is finally produced, the whole of its construction is carefully inspected in every detail and assembly, from raw material to finished product, it is of approved design, and must have passed a flight test.

All aircraft in operation must have a Certificate of Airworthiness, and the reputation of British Aircraft for structural soundness and safety depends on this rigid system of inspection. A sample or "Type" engine of a new or modified design for installation in civil aircraft must be submitted to searching tests before being approved.

### Flying begins in the Workshop

The Works Manager is in complete control of the actual production activities, and a large amount of responsibility rests on his shoulders.

The varied activities of an aircraft or engine manufacturing firm are too numerous to detail, but the personnel employed include managers, designers, section leads, checkers, draughtsmen inspectors, foremen, charge hands, clerical, advertising and sales staff.

The rank and file include machinists, fitters, welders, wood and metal workers, coppersmiths, tinsmiths, and the like.

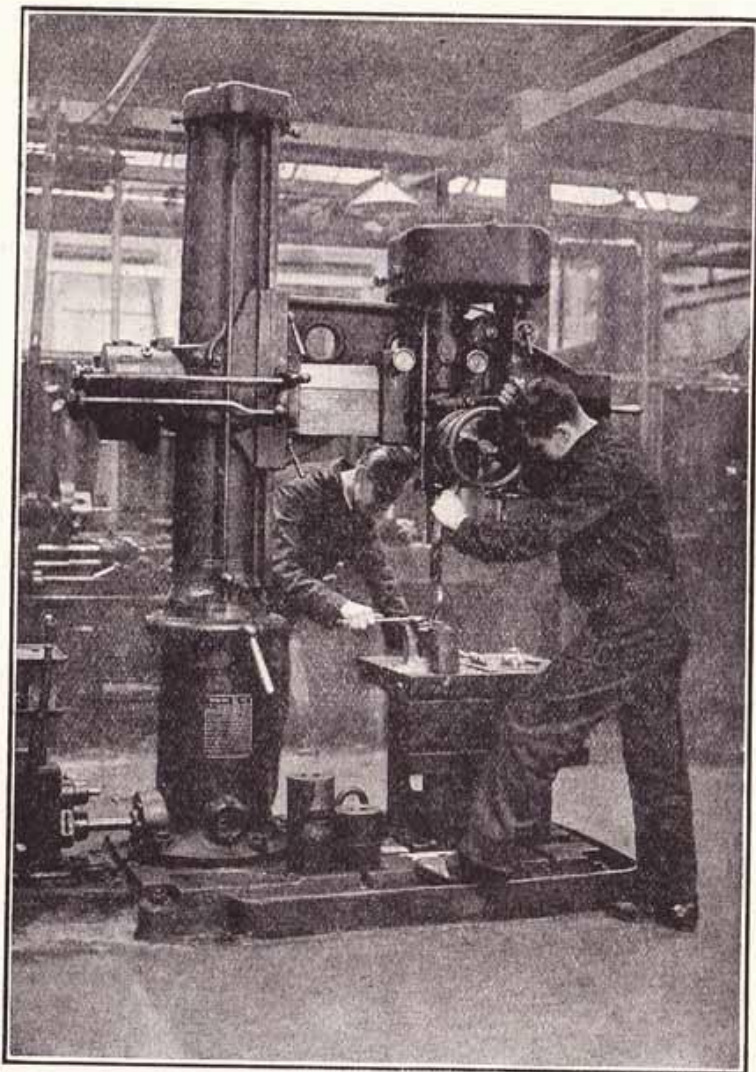
Once the aircraft has commenced its working life a large amount of personnel is required in order to keep it operating. On the technical side the responsibility is vested in the Ground Engineer, who is required to inspect and certify the aircraft and engine before flight, and also after overhaul or repair.

### The Licence System

All Ground Engineers are licensed by the Air Ministry, after examination, and are licensed in categories A and B for aircraft, and C and D for engines.

Licences A and C refer to inspection before flight, whilst B and D refer to inspection after overhaul, and call for a large degree of experience and technical knowledge. A special category, X, refers to components such as instruments, magnetos, or parachutes.





(Reproduced through the courtesy of the College of Aeronautical Engineering, Chelsea, S.W.3.)

#### HEAVY DUTY RADIAL DRILL

The student must prove his efficiency in this type of drilling machine before he will be granted a Ground Engineer's Licence by the Air Ministry. The above picture shows the fascination the work holds for these mechanically-minded lads.

On the operational side the staff includes Aerodrome managers, traffic control officers, and on large airports, wireless and customs personnel, suitable office staff, and usually hotel and catering experts.

The qualification to be aimed at in order to set the seal of efficiency in scientific and technical knowledge is either the Associate Fellowship or Associate Membership of the Royal Aeronautical Society.

In order to progress in Aeronautical Engineering, as in any other profession, a soundly conceived and thorough course of training must be undergone by the prospective engineer, and Colleges of Aeronautical Engineering have been founded to meet this need.

#### Type of Boy Required

As regards general education it is a mistake to think that the engineer is a mere technician. The engineer must be a man of wide sympathies and general culture if he is to succeed. At school he will probably show a certain amount of success in subjects such as chemistry, physics and mathematics, but he should also have a good knowledge of the best English literature, be able to write a thoughtful essay, and also possess the ability to express his thoughts in a precise, clear and logical manner, as many engineers are called upon to make reports from time to time.

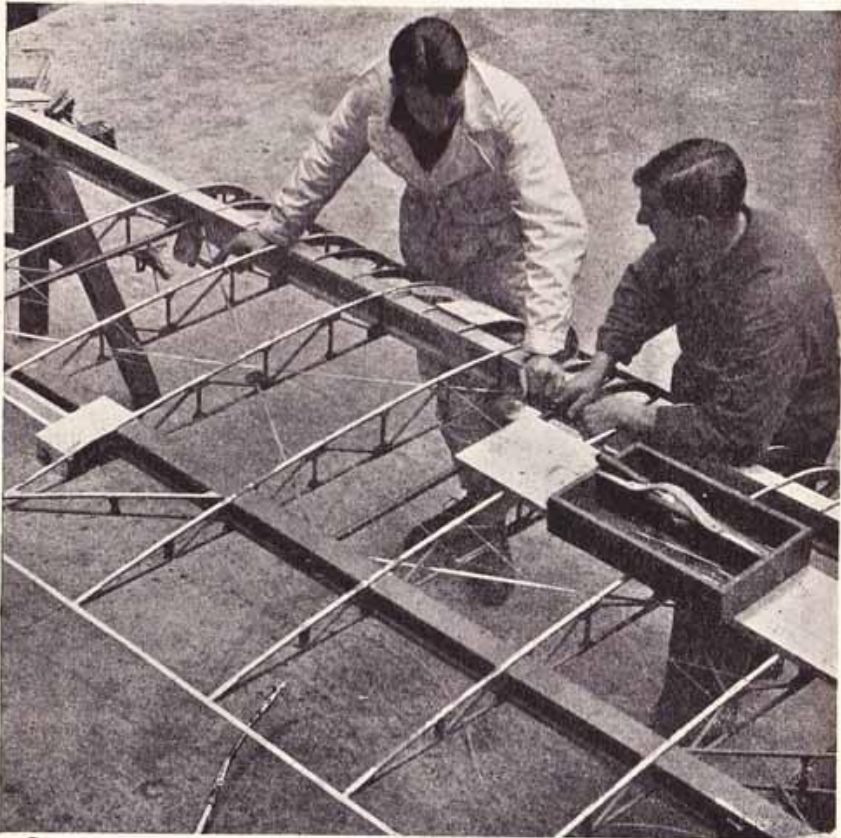
A good working knowledge of at least one modern foreign language is also an extremely useful asset.

With this general education behind him the prospective engineer will have a good foundation for his technical training.

This will include both practice and theory; on the practical side he will have to master such work as fitting, machine shop, welding, foundry, wood and metal work, after which he will proceed to more specialized work such as aero engine overhaul, maintenance, and testing, and aircraft construction, rigging, and maintenance. He will also deal with components such as magnetos, carburettors, instruments, and parachutes.

The theoretical work is of necessity mainly of a technical nature on engine theory, aircraft timbers, electricity, metallurgy, theory of flights, etc., and more advanced work in mathematics, aerodynamics, theory of structures and heat engines for the student who wishes to prepare for higher technical qualifications.

As the student is eventually destined for an executive or administrative post he must have a knowledge of aerodrome management, commercial practice, sales and service, Aviation Law, and secretarial work.



(Photo reproduced by kind permission of Air Service Training, Ltd.)

#### COLLABORATION!

A student discussing with an instructor the new spar which he has fitted to a wing. This gives an idea of the thoroughness of the instruction given in the various branches of aviation by our air training services.

After undergoing a training of this description the keen and hard-working student is equipped with a wide knowledge and experience which should enable him to fill the highest posts which aviation has to offer.

#### The Cost of Tuition

The age for entry into most Colleges of Aeronautical Engineering is from 17 years.

On entering the College the student is put on probation for a certain period and a careful record kept of his progress and suitability for the career. If at the end of that time he

does not come up to the necessary standard, the Principal will tell him so quite frankly. The length of training is from two to three years according to the knowledge the student already has of this type of work when entering the College.

The fees, which are payable in advance, are about 250 guineas for a three year course, or about 25 guineas a term.

An annual vacation leave is granted in the summer of about two weeks, and a short holiday at Easter and Christmas.

#### Prospects in Aeronautical Engineering

During the last few years aviation has made very rapid strides both from the military and commercial points of view. The League of Nations has tended to stress the importance of international co-operation, and aerial transport has become a practical means of bringing the nations of the world together.

To-day, practically every town of importance throughout the world is linked up with some form of air transport for mails, passengers, and goods. Whilst it is a costly means of conveyance, the time element in the modern world has become so important that this speedy means of transport is bound to increase its present considerable hold on this form of commercial service.

It is only a few years ago that flying was regarded as an adventure; people nowadays regard it as a normal means of transport and travel or send goods by air with complete confidence. It is particularly important as a means of linking together the far distant elements of the Empire, and the Government is giving every encouragement to Imperial Aerial Communications.

This rapid growth of commercial aviation has produced a very steady demand for ground engineers, aerodrome managerial and executive staff, and supply services and technical grades of all kinds. It is possible to learn to fly an aeroplane in a few months; but this is only a small part of commercial aviation. Reliability, safety and economy are the three elements which make for success in this industry, and the qualities required for these functions require skill and prolonged training. As Lt.-Colonel F. C. Shelmerdine, a Director of Civil Aviation for the Air Ministry, has said: "The man on the ground keeps the machines in the air."

Whilst everybody hopes that the present international competition in air armaments will be speedily terminated, it is impossible to ignore the present pressing needs of the different services. The Royal Air Force at the moment exerts a very steady demand for all those with some practical knowledge of all branches of aeronautical work.

These factors lead us to the view that sound opportunities exist and will continue to exist for several years to come for men fully trained in the engineering, managerial, supply and technical grades of civil and commercial flying.



RIGGING OF AIRCRAFT

The Aeronautical Engineer must understand everything about fabric sewing and covering. The fabric coverings of planes are opened up every year for careful examination in order to receive a renewal of the Certificate of Air-worthiness. Careful instruction in carrying out necessary adjustments and repairs and the final inspection of rigging and controls are all necessary before the certificate is renewed. The above photograph shows the students engaged in the rigging of aircraft at Brooklands.

## OLD HARLOVIANS

### NEWS AND EXTRACTS FROM LETTERS

#### THE MAYOR OF RAMSGATE

We are proud to know that the Mayor of Ramsgate, who has done such splendid work to protect the lives of his sorely afflicted townspeople, is an Old Harlovian. He was a pupil of the school while it was still known as Waltham College. Extracts from two letters from him can be seen on another page. The following article appeared recently in the *Daily Express*.

#### 'MAD' MAYOR'S NEW TOY SAVES LIVES OF HIS TOWNSPEOPLE

##### TUCKED IN TUNNEL

*Daily Express Staff Reporter HILDE MARCHANT*

There used to be two opinions of the Mayor of Ramsgate—Mr. A. B. C. Kempe. Some called him a clown or the mad mayor.

Others said the old man has got his head screwed on the right way. Now the whole of Ramsgate says one thing—he has saved hundreds of lives.

Even his critics apologise and say it was not madness—just foresight and imagination.

For the mayor, his borough surveyor, his architect, and a few friendly councillors got the best air raid shelter in the country built before the war began.

When German airmen dropped 500 bombs on the town, smashed a thousand houses, most of the town was deep under the ground in three and a half miles of tunnelled chalk.

Since this savage mass raid thousands of people sleep in the tunnels, and every night the mayor goes round saying goodnight, tucking the children into their cots, assured that his population is in the safest spot in Britain.

#### FOR 60,000 PEOPLE

The idea for the tunnels was put before Ramsgate Council on 2nd February, 1939. The plan was that if there were war the tunnels would hold 60,000 people in safety and comfort.

If there were no war the tunnels could be used as an underground railway to the disused harbour station. They would revive the harbour Channel trade.

The scheme got a rough ride, but was passed. It was not entirely the mayor's, but his enthusiasm pulled it through.

On June 2nd the Duke of Kent was taken through the first completed part of the tunnels. By September 3 they were finished. But the underground railway was abandoned.

The tunnels cost £60,000, have independent electric light, ventilator shafts, washroom accommodation. Mr. Kempe took me over them a day or two ago. They are the twentieth century catacombs.

Hundreds of people from wrecked homes were sleeping on deck-chairs and mattresses, with bundles of linen and clothes they had rescued.

They all knew Mr. Kempe as he walked through, and he knew them all and their children.

At first there were many who thought these tunnels were just another Kempe toy.

"Now we can say there are hundreds of people here alive, who might have been dead or maimed," said Mr. Kempe.

He has been in many fights in his town. First was when he was a councillor and marched into a meeting in a suit of armour, helmet and with a battle axe.

He had been rehearsing his part as Hengist in the festival. He was told to go home and change, but when the stir died down every one knew there was a summer festival in Ramsgate.

They made him mayor, and he began to publicise his town, attract visitors. There were still critics who wanted to know why the mayor walked on the beach in a top hat, his chain and a braided morning coat, saying good morning to the visitors.

He replied that a mayor had to be dignified and a credit to his town.

He gave tea for 1,000 visitors on the sands. He went bathing with a beauty queen and with a little boy from Rotherhithe who was given a free holiday for bravery.

I talked with one leading citizen, who said: "Oh, yes. Kempe used to clown around, but he is no fool."

No. Rather he has proved himself a man of sincerity and judgment.

He is a real city father.

\* \* \*

*Rev. R. F. S. Abbott* (1892-1902), Weston Vicarage, Hitchin, Herts. "We keep very well. One way or another we both have plenty on our hands. We still have two evacuee children, and have had them over a year now. Also we have the wife and child of a naval officer, who has been called up, so we are a full house. I am vicar, organist, verger, churchyard attendant, and shall be stoker too when we start fires. I am also Sergeant in the Home Guard and had some gruelling hard work building our strong point—far harder than I should have had as an Army Chaplain; but I am too old for that in the present war. The average chaplain seems to be far too young to have enough experience of men and life for such a delicate job. I remember only too well from the last war, how easy it is to blunder through inexperience."

\* \* \*

*A. B. C. Kempe* (1894-1900), Mayor's Parlour, Ramsgate. "Yes, I am the A. B. C. Kempe who used to be at Waltham College. I was very pleased to hear from you, because I have memories of many very happy years at school. For 35 years now I have been in the Insurance profession, and I am at the moment branch manager of the Royal London Mutual Insurance Society here. I have been here for seven years. I was elected Alderman after two years' service on the Council, and Mayor after five years. Since I have been here I have organized and I am Chairman of our Carnival Week. This has been a wonderful success, and has brought thousands of visitors to our town. I am also Chairman of the Conservative Association, Chairman of our Publicity and Entertainment Committees, so you see I have no spare time. Our town became famous when the war broke out. We are now in the front line and having a hectic time, but we are not afraid, and in fact the morale of the town is very good." (The Sub-Editor got into touch with the writer of this letter, through hearing him broadcast.)

*A. B. C. Kempe* (2nd letter). "We have had a hot time here. 1,600 houses shattered in three minutes; they simply unloaded 600 bombs on us, and I had a very near shave myself. We have cleared things up a bit now, but about 200 houses will have to come down. Thank God for our deep tunnels; these kept the casualty list down to 30 dead and 50 injured. I had the pleasure of going to the Home Office and getting these approved. It was the third attempt, and I had to be very aggressive about it—the only thing Government Departments seem to understand.

We have had some very distinguished people here to see

them, including the Prime Minister and the Archbishop of Canterbury. They all say it is a wonderful scheme. Try to get the 'Picture Post' this next week or so; it is making a special feature of them. We have a trying time here. The planes are over day and night dropping bombs around us; yet our people are cheerful and determined. I have been elected Mayor again. This is my third year; it is certain to be hard going, but I considered it my duty to accept."

\* \* \*

*Captain John Horsey* (1906-1912), British Imperial Airways. "I spend all day flying the latest R.A.F. machines, taking them from the makers to various aerodromes. They are all new machines, and some are quite secret. I have been as far as —, —, and — to-day on three different types of machines. Tomorrow I am off again at 9.30 to collect and deliver four different machines from various makers. I really am now in a good position to know what our R.A.F. is and means. It is stupendous. The whole story cannot be told yet, but as sure as we have ruled the seas for centuries, we are ruling the air now and shall keep on doing so. It isn't only the aeroplanes. It is the various gadgets on them as well. Intriguing and wonderful some of them are, and I don't think Jerry has a hope. If ever a miracle did happen, it was the birth of the new R.A.F. In another six months, I believe the famous Luftwaffe of the Germans will crumble against it. . . . I can't get over the fact that here am I, over 40 years old, and yet flying Spitfires, Hurricanes and lots of other very fast fighter aeroplanes. Our job on the air lines is finished for the present, and the job I'm on now is of more national importance. I have had two little incidents, but got away each time."

\* \* \*

*Signalman D. R. Molbert* (19—19—), B Company Depot Battalion, 2nd Training Centre, Royal Corps of Signals, 2347269. "I feel I should write to you, as you ask in the 'Harlovian' for news of Old Boys. You will, I know, be very sorry to hear that my brother, W. T. Molbert, who was at Harlow College 1931-1934, is believed to have lost his life at Dunkirk. He was in this regiment, attached to a field regiment of the R.A., and was ordered to retreat to Dunkirk. He was in his wireless lorry with a man named Smith, and after trouble with the engine, which separated them from the Regiment, the two arrived on the beach five miles east of Dunkirk. A bombing raid occurred, and Smith lost sight of my brother. Smith boarded a destroyer, which was sunk, but eventually he arrived home safely, though without seeing

my brother again. The Captain feels that as my brother got to the beach, the only thing that could have prevented his embarking was that he had become a casualty. There is little hope of his having been saved, though there is a bare possibility that he was wounded and taken to a French hospital, but as we have not heard from him since Whitsun, the chance seems remote. The section suffered heavily, and the section officer and sergeants are also missing.

I am in the Royal Corps of Signals, and in a few days I am to be transferred to take a five months' course to become a wireless and line operator. When I have qualified I may apply for a commission, as my C.O. has promised to recommend me. So far life has been quite pleasant, as this is a holiday camp converted into a military training centre, where there are many conveniences, including a swimming pool, tennis courts, football and cricket grounds, besides billiards, table tennis, a library and rest rooms."

\* \* \*

*J. Walford*, 26 Wilmot Way, Banstead, Surrey. "Knowing that you ask for news of Old Boys for the Magazine, I thought you would be interested to hear that Peter went to France with the B.E.F., and, I am thankful to say, survived the Dunkirk evacuation. He got away in a small tug. His experiences were amazing, and the ordeal he went through must have been ghastly. However, he came through it without a scratch, and I must say that when he arrived home for his Dunkirk leave, he looked and felt none the worse; in fact, he looked bigger than ever. He is now 6 feet tall. You can imagine our anxiety during that terrible week, and what our feelings were, when we got a post card on the Saturday, saying that he was safe in England. I don't mind admitting that I am very proud of him. Though only 18, he showed grit and initiative, when he might easily have lost his head, as the battery was all split up during the retreat, and it was every man for himself. We value very much a letter from the Colonel saying this, and how pleased he was to have such a lad in his regiment. He was selected for a commission, but, when the question of birth certificate was mentioned, his correct age was divulged; therefore, much to the regret of the Colonel, Peter, and incidentally myself, the commission must be left in abeyance for the time being. I hope the College has not suffered in the raids. Please remember me to Mr. and Mrs. Dames, Mrs. Horsey and Miss Jessie. We seem to be on Jerry's waiting list but the nearest bomb was 150 yards away."

\* \* \*

*John G. Henfrey*, L/Bdr. 1428180, 152 H.A.A. Battery, 51st (London) Reg. R.A. "Some time ago I wrote that our regiment was possibly going to France. But we never went, and, instead, we were sent to Norway. We sailed in fine luxury liners, and after a rather rough journey, we sighted the snowy peaks of Northern Scandinavia. The waters of the fiord which we entered were as calm as a pond. We disembarked in the light of an Arctic midnight, for we were 100 miles inside the Arctic circle, in the land of the midnight sun. We were transferred to a boat, not unlike a tug, and having taken on a few days' supplies, we steamed silently up a fiord, dwarfed by huge rocky heights on either side of us. Hardly had we landed some three hours later when Jerry came nosing around, but the clouds were too low for him, and he soon flew off again. Two days later we saw our first big air raid. Fifteen German planes raided the harbour, ammunition ships and cruisers for two hours, without doing any damage. We had no ammunition as yet, so we were unable to retaliate. That evening, however, it arrived, and the very next morning we were able to get a crack at him at last. We made ourselves such a nuisance that, whereas he was formerly wont to bomb from 7,000 feet, he now rarely descended lower than 15,000. One morning we caught the distant echoes of his engines throbbing through the mountains, and the next minute five Heinkel 111K bombers—his latest type—appeared out of a cloud bank, heading straight for us. We opened up with a terrific barrage of shells, and, as they turned away, great columns of water shot up along the shore followed by heavy rending concussions. They had dropped a salvo of bombs about 300 yards away. This was the nearest they got to us, and we had the satisfaction of shooting one of them down. During our three weeks out there we were, I believe, credited with about 21 planes. On the average we were raided three times a day. We saw H.M.S. *Curlew* sunk after days of repeated attack.

When the order came to withdraw, we blew up the guns, smashed stores and thanked God for the Royal Navy, which so efficiently and successfully evacuated us on destroyers to our troopship out at sea. We escaped the fate of H.M.S. *Glorious* by one day, had a lucky escape from hostile aircraft, and were thankful to reach home again after nearly a month's fighting just north of Narvik.

My brother is still very busy engineering in Lincoln. He tried to join the Navy several months ago, but they refused to take him on account of his reserved occupation, very much to his disappointment."

\* \* \*

*L/Cpl. J. M. Harris* (1928-1931), Corps of Military Police, No. 1686736. "My commanding officer has recommended me for a commission in the Royal Corps of Signals, You may be interested to know that I am expecting to join the Palestine Police after the cessation of hostilities. I hope I shall be fortunate enough to obtain the commission, and I will let you know whether I am successful or not. We are at present chiefly engaged in plain clothes work. We have a tremendous lot to do in this corps, and we have no time at all for leisure. I have been unable to undress at all for the last three days, and for almost a week now I have only been able to snatch a few hours' sleep each day. I note your wish that I should send you a little material for the *Old Harlovians'* section of the magazine. I have a very prickly conscience for not having kept in closer contact with the College in recent years, and I will atone for this lapse by writing you a newsy letter in the near future."

*J. M. Harris* (2nd letter). "There are, unfortunately, no vacancies for commissions in the Royal Corps of Signals now and, what is more, there will not be any for some considerable time yet. In the Infantry, however, there are still plenty of vacancies, and my O.C. suggested that I should apply for one of these. This I did, and I am pleased to say that I have been successful, and am joining the O.C.T.U. on or before September 20th. I am extremely lucky in being selected, for six members of the unit were nominated for commissions, but only two of us have been fortunate enough to be chosen. It was at first thought that we should have to spend a probationary period with an Infantry unit in the field, but it has now been decided that this is unnecessary, and we are joining the O.T.C. direct. I cannot help feeling that I am greatly indebted to you for your reference, and I can assure you that I will always do my utmost to justify it. At some later time I hope to write you a more newsy letter. I hope to be able to spend seven days at home at Sawbridgeworth before very long, and I might then get the opportunity of visiting you to thank you personally for all you have done for me."

\* \* \*

*Driver H. E. Minett* (1932-1936), S 2, B Battery 49, 22nd Med. and Heavy Regt., Royal Artillery (955970). "Since my last letter, which I was flattered to see quoted in the 'Harlovian,' I have passed out as 'Driver 1/C,' and have become attached to Headquarters down here. I just missed various drafts to France, and as no more drivers were required in our own unit, I was retained and I have spent my time since

then driving round this district which I am beginning to know almost as well as I know Harlow. I have been very busy in the entertainment line. I am the pianist of the Regimental Dance Band, and also official accompanist of the Garrison Concert Party. Besides entertaining our own boys, we have given several shows at various out-of-the-way military camps. We cram all the instruments, props, make-up and artists into an Army lorry, and set off to the different places, not knowing whether we are to give our show in a hall, or, as is more often the case, a hastily erected marquee. This brings me to a rather strange coincidence. We did a show last week at one of the most outlandish spots along the coast, and when we had finished, one of the audience came up and asked me if I came from Harlow. It turned out that he was Grundy i, who came to Harlow the term after I left, but he remembered seeing me on Old Boys' day. It is a small world isn't it? I expect you have heard that Stock ii is reported missing in France. He and his brother were great friends of mine and I do hope he is safe somewhere."

\* \* \*

*H. A. Cantor* (1924-1931), Ramridge House, Weyhill, near Andover, Hants. "I am a full-blooded Non-Com. now and am applying for a commission. I am engaged to be married and my fiancée and I hope to be married at the beginning of October. I am enclosing some snapshots of her, and also of myself, with some of the N.C.O.s I work with. I doubt whether you will recognize me, as since I had to give up boxing, of which I did a lot for about two years, I have put on weight. I am expecting to go overseas before long. It will be bad luck if I have to go within the next three months. I was hoping to be able to attend the dinner and dance with my fiancée but unluckily could not get the time off, but as soon as I am able, we shall come down and see you all again. I met Major Hendin the other day. As you know, he lives down here and I have known him for about a year. He sends his kindest regards to you."

\* \* \*

*J. Grundy*, Freshwater. "I have now been transferred to the Royal Artillery. An air raid last night dispelled the illusion that I had a comfy billet, as six planes flew over and dropped a couple of bombs close by. Our job is coastal defence, with heavy guns and searchlights. My own job alternates between Lewis gun for anti-aircraft, and searchlight for examination purposes. Next week the Navy is going to take over command. Thus, in three months I shall have served in the Army, Air Force and Navy! The news from France does not depress us

here, since we have an obstinate faith in Britain, and don't believe that any Hun will ever overcome us. How is the old school? I often long to enjoy its peaceful atmosphere again. The fellows who came with me from the Kensingtons are all a decent crowd. My friend was at Wellington. The battery crowd call us the Public School boys!"

\* \* \*

*E. D. Valle-Jones* (1931-1937), c/o The Anglo-Saxon Pet. Co., 110-113 Tavistock Road, Plymouth. "I wish to transfer myself from the Merchant Navy to the R.N.R. I have found life at sea not nearly so rough as it is made out to be. The only disappointing thing about it is that I have had only eleven days at home since November, 1937. Since the declaration of war we have had quite an exciting time. On this particular voyage we were twice bombed by enemy Heinkels. But they did no material damage, and after dropping eight bombs, they found our A.A. gunfire too hot for them and flew homewards. Unfortunately, we are out of the excitement most of the time. If I go into the R.N.R. as a temporary midshipman for the duration of the war, I ought to be nearer the scene of action."

\* \* \*

*R. E. Wykes*, Roselea, 33 Carlisle Avenue, St. Albans. "I have entered the Midland Bank after passing the customary entrance exam., and I find the work very interesting. I miss the pleasant cricket or football matches we used to play on Wednesday afternoons, on which I now have to plough through my bank work, but I am able to play on Saturdays. I had not realized before how much practice one gets at school, and how one's play deteriorates without it."

\* \* \*

*Captain Alan Greatrex* (1910-1916), 45th Maintenance Unit, R.N.A.S., paid us a visit in August. He is back again in the same fighting branch in which he served in the last war. He has been enjoying a varied career ever since he left school: first fighting, then tea-planting in India, then, when modern "reforms" ruined much of the tea-planting industry, a large garage in England, and now fighting once more. In the course of his career he acquired a very charming wife, and like a true Old Harlovian, he brought her to Harlow, to introduce her to his former schoolmaster. Other Old Harlovians please copy.

\* \* \*

*J. W. Cook* (1926-1931), 37 Woodlands Avenue, Wanstead, also visited the school in August. On leaving school he

joined the British India Steam Navigation Co. as apprentice. After four years' service at sea he passed the 3rd, and later on the 2nd Officer's examination. He is now in England enjoying, as far as the war will allow, his long looked forward to eight months' holiday; and lest such an unusual length of leisure should encourage idle habits, he devotes part of his time to studying for the 1st Officer's exam. May he pass it with honours.

\* \* \*

*G. B. Fletcher* (1930-1932) on leaving school enlisted in the Royal Navy for seven years as an A.B. He had an exciting time at Narvik; his ship on its way home to England sank two submarines. He spent part of his 48 hours' leave in paying us a visit. It was just when the whole world was on tenterhooks, wondering what would become of the French fleet, and he thrilled and delighted us by revealing that he had seen the greater part of it safely tucked away in British ports. Such a wonderful piece of news made him a doubly welcome visitor.

\* \* \*

*R. E. Wells*, 29 Warwick Road, Bishop's Stortford. "I am now working at the Chartered Bank of India, Australia, and China. Ernest is still on the coast with the London Rifle Brigade."

\* \* \*

The following names are to be added to the list of Old Harlovians in the fighting forces:—

P. F. Douglas (1934-1939), Paymaster Department of Royal Navy.

E. C. Russell (1933-1937), Midshipman.

W. M. Brown (1933-1936), Naval Telegraphist.

\* \* \*

News is much appreciated about all Old Harlovians, particularly those serving in the Forces. Letters—the longer and the fuller of details the better—will be gratefully received at the College by Mr. Dames, or at Baythorn House, Harlow, by the Old Harlovians' Sub-Editor, E. Percival Horsey.





