

THE
SEDDONIAN



Being the Annual Magazine of
THE SEDDON MEMORIAL TECHNICAL COLLEGE
Auckland, New Zealand, December, Nineteen Thirty-Five

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THE
SEDDONIAN



This Magazine has been wholly produced
by the College Printing
Department.

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THE SEDDON MEMORIAL TECHNICAL COLLEGE
Auckland, New Zealand, December, Nineteen Thirty-Five

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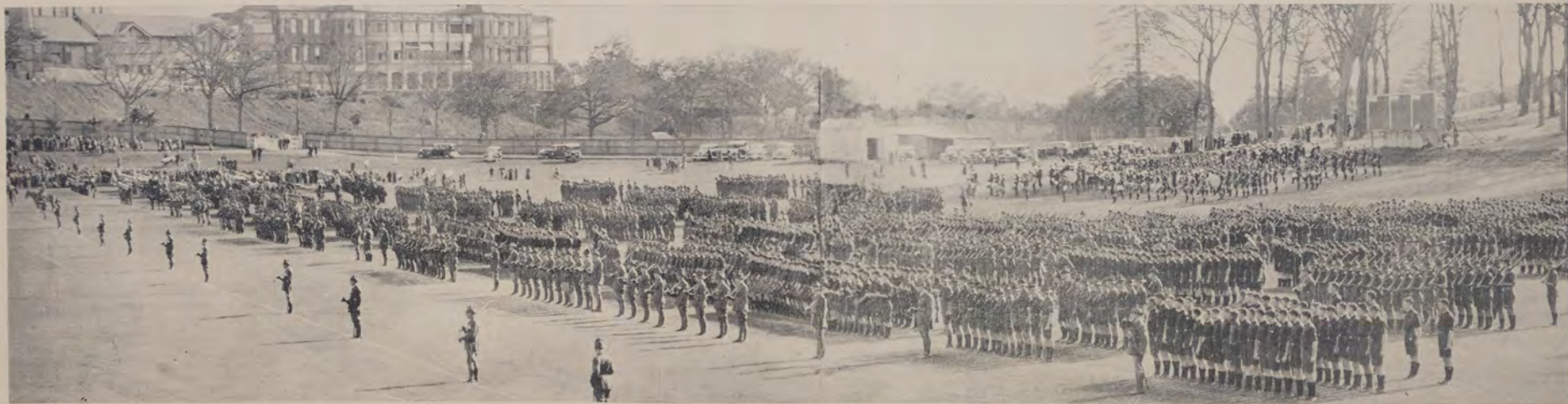
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FIRST YEAR GIRLS, 1935.

—By Courtesy of the "Auckland Star."



KING'S BIRTHDAY PARADE, 1935.

SEDDON MEMORIAL TECHNICAL COLLEGE—THIRD BATTALION FROM RIGHT.

—By Courtesy of the "Auckland Star."

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A. Thompson
C. Thorpe
A. Tweedie
S. McL. Wallace

GIRLS.

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Cecil Cantlay
Dorothy Mansfield
Florence Woodward
Esther Moss

Sub-Prefects:

BOYS.

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L. Rowe
A. Whaley
T. Woodward.

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Margaret Gow
Christine Jones
Camille le Long
Nancy Melbourne
Nancy Noall
Betty Stratton
Dorothy Tainsh

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Evening Records, Miss J. Cleal.

Book Room, Miss J. E. Stanley.

Day Records, Miss T. A. Pinhey.

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School Officers of 1935

"Seddonian": Editor-Manager, Mr. E. C. Wooller.

Cadet Corps: O.C., Captain Scott.

Infantry Battalion:

A Company, Captain Wood, Lieutenant Wooller, Lieutenant Halstead.
B Company, Captain Thompson, Lieutenant Adams.
C Company, Lieutenant Leeves, Lieutenant McRobie.
D Company, Captain Davis, Lieutenants Brooke and E. James.

Artillery Section, Lieutenant Carnachan.

Games Organiser: Mr. Burley.

Cricket: Messrs. Taylor (1st XI.), Drake, McKillop, Wooller, Stewart, Wood, McCombs.

Football: Messrs. Titheridge, Scott, Wooller, Ohlson, Webber, Smyth, Drake, Halstead, McKillop, Brooke, Adams.

Athletics: Messrs. Leeves, Titheridge, Webber, Wooller.

Basketball: Miss Adams.

Tennis, Boys: Messrs. Carnachan, Taylor. Girls: Miss Wright.

Houses:

Binns, Misses Cambridge, M. G. Anderson; Messrs. McKillop, Wooller.
Hindley, Misses Aitchison, Henderson; Messrs. Drake, Adams.
Seddon, Misses Boynton, MacCormick; Messrs. Carnachan, Brooke.

Wellesley, Misses Stubbs, Irving; Messrs. Wood, Stewart.

School Concert and Choir: Messrs. Thompson, H. James, Scobie, Wood.

Orchestra: Mr. Burley, Misses Adams, Davis.

Savings Bank, Mr. Jones.

Shooting: Mr. McRobie.

Stamp Club: Messrs. Wooller and Scott.

Captains of School Teams

Basketball:

A Team, Dorothy Mansfield.
B Team, Rhona Tilby.

Rugby:

First XV. (Second Grade), A. Findlay.
Second XV. (Third Grade), M. Lund.
Fourth Grade, V. Harris.
Fifth Grade A, F. Rosenfeldt.
Fifth Grade B, R. Carter.
Sixth Grade A, J. Riddell.
Sixth Grade B, B. Thompson.
Seventh Grade, D. Tucker.

Soccer:

Intermediate, G. Healy.
Junior, R. Crabb.

Cricket:

First XI., A. Thompson.
Second XI., H. Emus.
Third XI., J. Roberts.
Fourth XI., I. Jensen.
Fifth XI., L. H. Pratt.
Sixth XI., J. W. Davison.

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EDITORIAL - -

In years to come, when the citizens of New Zealand have come to a realisation of their duty towards the crippled children of the community, the pupils of 1935 may well look back with pride on the part they played in helping to launch the New Zealand Crippled Children's Society. They will be especially proud to remember the leadership and inspiration of their Principal, Mr. G. J. Park, who, as chairman of the Crippled Children's Committee of the Auckland Rotary Club, closely identified himself with the movement from the outset.

Coming, as they do, from all parts of Auckland, the boys and girls of the College were able to give valuable help in preparing a list of crippled children. Then, spurred on, firstly, by Lord Nuffield's princely gift of £50,000, followed later by another £10,000, and, secondly, by the magnificent gesture of Mr. and Mrs. W. R. Wilson, of Takapuna, in giving their beautiful home, St. Leonards, to crippled children, the College made a united effort. The result was that Mr. Park was able to hand over to the Mayor's Endowment Fund on behalf of the College Board, the staff and the pupils, the sum of £200.

Although the results to date are encouraging, a tremendous amount of work yet remains to be done before the crippled children's movement is established on a firm footing. It is not fully realised how many children are in need of help. The Auckland branch of the Crippled Children's Society alone has a record of 202 cripples, and the estimated cost of running St. Leonards for 40 patients would be over £3,000 a year. Cost what it will, the movement to help the unfortunate cripples is worthy of national support, for, when they are trained to earn their own living, not only will these children no longer be a charge on the community, but, far greater than this, they will be able to enjoy the happiness which is the right of every human being.

No more spontaneous applause has been heard in the Assembly Hall than when the Head Prefect came forward one morning in June to offer Mr. Park the congratulations of the College on being included in the list of recipients of the King's Jubilee Medal. With characteristic unselfishness Mr. Park expressed the opinion that it was not he who had been awarded the honour, but the Seddon Memorial Technical College through him. However, those who have been identified with the College for any length of time, know that Mr. Park's services to technical education are such that he would deserve well of any honour that might be bestowed on him.

It was 40 years ago on Monday, June 10th, 1895, that the Auckland Technical School, now the Seddon Memorial Technical College, was opened in premises in Rutland Street, opposite the Drill Hall. Originally the school, which ran mainly evening classes, was controlled by a council composed of members elected by subscribers to the funds of the association and representatives of educational and other bodies, but, in 1902, the work was taken over by the Education Board. From such small beginnings, then, has sprung a mighty school which, in its day and evening classes, now caters for the educational wants of about 3,500 students. Who can say to what heights our College will have attained in another decade when, no doubt, thousands of ex-students will gather to celebrate our golden jubilee?

STAFF NEWS

At the end of 1934 **Mr. C. C. Allen**, who has been connected with the College for many years, retired from the teaching profession, carrying with him the best wishes of his colleagues. Another old friend in **Miss F. E. Lee**, left us to be married, at the end of the first term this year. **Miss Lee** has always been closely identified with the outside activities of the girls, and her work in connection with basketball and the orchestra will not be soon forgotten. In farewelling **Miss Lee** opportunity was taken by the staff to congratulate **Mr. T. H. McCombs** on his recent marriage, and to welcome his wife. At the same time **Miss Vickery**, who is spending eight months in England, was wished "bon voyage." More recently, **Miss Cruickshank** left the Home Science Department to take up a position at **St. Hilda's Collegiate School, Dunedin**. In her place has come **Miss N. Burley, B.H.Sc.**, who is no stranger to us as she was a student teacher at the College during 1929 and 1930. (Her father, **Mr. W. E. Burley**, is not unknown in the College.)

In place of **Miss Allum** who has been gaining teaching experience overseas for the past two years, we welcome **Miss L. R. Todd**, who is on exchange from **Marlecliffe Intermediate School, Sheffield**. **Miss Todd** is a specialist in the French language. In **Miss Vickery's** absence, **Miss T. H. Clough, A.R.A., N.Z.**, formerly of the office staff, has filled her position in the Commercial Department. A new member of the staff on the women's side is **Miss K. Irving, B.A.**, who formerly occupied the position of Librarian. Her place has been taken by **Miss Wood, M.A.**, who comes to us from the **Auckland University College**.

Great excitement was aroused in July when it became known that **Mr. T. H. McCombs** had been selected by the Labour Party as the official candidate for the **Lytelton electorate**. The general opinion that **Mr. McCombs** would be successful in gaining the seat held by his family for some 22 years, was upheld by the results of the poll. For a time **Mr. McCombs's** position was held by **Mr. J. W. Edwards**, a student teacher who, owing to difficulties with the Education Department, had to revert to his former position, so now the destinies of **Commercial 1D** are ruled by **Mr. Young**, an evening school instructor.

During the course of the year several new members have been welcomed to the men's common-room. In April **Mr. E. H. Halstead, M.A.**, came to us from **Howick District High School**. During the first term **Messrs. Byrnes and Finkelstein** held temporarily the positions which were taken up permanently at the beginning of the second term by **Messrs. Ohlson and Maloy**. **Mr. A. B. Ohlson, B.A.**, is a newcomer to technical schools, his last post being at **Ngatea District High School**. **Mr. C. Maloy, M.Sc.**, is an old boy of the College, who, after spending two years here as a student teacher, entered the **Auckland Training College** for three years, and was then appointed to **Invercargill Technical High School**, whence he came to us. A little later **Mr. J. M. Scobie, Dip. Soc. Sci.**, of the **Canterbury University College** arrived to take up the position vacated by **Miss Lee**.

Rugby Success of Old Boys' Club

The **Technical Old Boys' Club** is to be heartily congratulated upon its winning of the **Auckland Rugby Union's senior championship**. The club was formed in 1920 and entered senior A grade in 1929. This year marked its first success in the senior championship.

The team was very capably coached by **Mr. R. F. Galbraith**, and captained by **M. Turbott**. The lastnamed was recently married, and, in honour of the occasion, the senior team made him a presentation after last Saturday's game.

The **Technical Club** as a whole had a very successful season. Apart from winning the senior championship and **Gallaher Shield**, the first grade team won the **Jubilee Trophy** competition. The junior, third and third intermediate teams were all runners-up in their respective grades, while the fifth grade team won that particular championship.

As the result of the good performances of all its junior teams the club won the **Southland Shield**, awarded for the highest average of points scored by the three best junior teams. **Technical** gained the remarkably fine average of 92.7 points. It has always been the club's policy to encourage its junior members, and this is borne out by the fact that several members of the successful senior team commenced in the fifth grade. Juniors filled the places of injured players with the greatest credit. —N.Z. Herald.



FIRST ELEVEN, 1934.

Standing: V. McLean, L. Broberg, J. Pearson, D. Castles, W. Malyon.
Sitting: Mr. Burley, A. Thompson, M. Wakefield (captain), M. Lund, D. Jones.
Absent: R. Burton, G. Woolley.

—Photograph by Alan Blakey.



WAITING FOR THE NEXT EVENT AT THE SWIMMING SPORTS.

—By courtesy of the "Auckland Star."

SUMMER SPORTS

CRICKET - SWIMMING ATHLETICS - TENNIS

CRICKET

FIRST ELEVEN.

Technical opened the 1935 cricket season against Mount Albert Grammar School, Mount Albert winning the toss sent Technical to the batting crease.

TECHNICAL—First Innings.

Thompson, c. Mayn, b. Kirkham	13
Brady, lb.w. Kirkham	3
Malyn, b. Stewart	1
Randrup, b. Stewart	8
Bainbridge, b. Kirkham	9
Lund, b. Mayn	3
Jones, b. Mayn	2
Wiles, b. Kirkham	2
McLean, b. Kirkham	2
Walbran, b. Mayn	9
Rosenfeldt, not out	9
Extras	6
Total	44

Bowling: Kirkham, 5 for 17; Stewart, 2 for 15; Mayn, 3 for 3; Thom, 0 for 3.

MOUNT ALBERT—First Innings.

Martin, b. Thompson	0
McDonald, c. Randrup, b. Lund	21
Kingstone, lb.w. Wiles	7
Thom, b. Lund	25
Burgess, b. Lund	19
Rowntree, not out	23
Mills, b. Wiles	4
Mayne, b. Wiles	14
Williamson, lb.w. Thompson	1
Stewart, b. Wiles	1
Kirkham, b. Wiles	0
Extras	9
Total	139

Bowling: Wiles, 5 for 24; Lund, 3 for 45; Thompson, 2 for 35; Walbran, 0 for 16.

TECHNICAL—Second Innings.

Thompson, b. Kirkham	1
Randrup, b. Stewart	19
Wiles, st. Rowntree, b. Kirkham	0
Malyn, c. Stewart, b. Kirkham	0
Brady, st. Rowntree, b. Stewart	0
Bainbridge, run out	0
Lund, run out	1
McLean, run out	0
Rosenfeldt, c. Burgess, b. Stewart	8
Walbran, not out	4
Jones, absent	0
Extras	8
Total	28

Bowling: Kirkham, 3 for 10; Stewart, 3 for 12; Mayn, 0 for 10; Thom, 0 for 3.

Thompson and Brady opened for S.M.T.C., but disaster fell early, Brady going lb.w. 6-1-3. Randrup and Thompson defied the attack for a time and, as the result of a careless shot, Randrup was bowled. 25-3-8.

The tall failed to wag and Technical were all out after two and a quarter hours' play, for a total of 44. With one and a half hours to bat Mount Albert opened their first innings, one wicket falling in the

first over. 1-1-0. The incoming batsmen attacked the bowling with confidence, and, at the end of the first day's play, had lost 5 wickets for 95 runs.

Continuing on March 2, Mount Albert were dismissed for a total of 139, due to the excellent bowling of Wiles, whose figures were 5 wickets for 24 runs off 13 overs.

S.M.T.C. opened their second innings, Randrup being the only batsman to play with confidence. The side were dismissed for the meagre total of 28, Mount Albert securing an outright win.

S.M.T.C. V. KING'S COLLEGE.

King's College, winning the toss, elected to bat on a batsman's wicket. The opening batsmen for King's, Mathers and McGruther, played the bowling very confidently until McGruther was bowled by Wiles, 28-1-11. Mathers and Roberts carried the score to 73 before Mathers was bowled, 73-3-42.

The remaining King's batsmen, except for Reece, scored moderately and King's College were dismissed for 151. Walbran bowled well for Technical, securing 4 for 17.

Technical opened their first innings in a very dull light, and disaster came early, Thompson being bowled, 5-1-0. Randrup and Malyn both batted confidently, but, as the result of a careless shot, Malyn was caught, 40-3-10. At the end of the first day's play Technical had 4 wickets down for 63 runs.

Continuing the following Saturday, Technical's hopes of getting the runs were very small, Wiles, who had scored 33 the previous Saturday, was bowled when he had added one to his over-week score. Brady and Rosenfeldt (the two smallest boys in the team) brought the score from 68 to 93, before Rosenfeldt was caught after he had played very patiently, the score being 93-7-5.

Brady and Lund lifted the score to 112, before Brady stepped in front of a straight one from Smith, only to be given out, lb.w. 112-3-29. The 29, which Brady scored, came at a time when it was needed most.

Walbran, the last man in, associated with Lund. This pair batted confidently together, and, defying all chances of bowling, put on 61 for the last wicket before Walbran was bowled by Mathers. This gave S.M.T.C. a victory by 22 runs on the first innings. Lund struck form in this match, giving a good display for 42 not out. It was pleasing to see the performance of two first year boys—Wiles and Walbran—who batted and bowled splendidly.

KING'S COLLEGE—First Innings.

Mathers, b. Walbran	42
McGruther, b. Wiles	11
Abbott, b. Woolley	2
Roberts, lb.w.	17
Barr-Brown, c. Thompson, b. Walbran	4
Douglas, run out	8
Wilson, b. Lund	14
Jenkins, run out	2
Reece, not out	24
Malyn, b. Walbran	7
Smith, lb.w.	16
Extras	18
Total	161

Bowling: Walbran, 4 for 17; Wiles, 2 for 24; Lund, 1 for 28; Woolley, 1 for 30; Thompson, 0 for 25.

TECHNICAL—First Innings.

Thompson, b. McGruther	0
Handrup, b. Roberts	0
Wiles, b. Abbott	34
Malvon, c. Roberts, b. Abbott	10
Woolley, b. Abbott	5
Brady, lb.w. Smith	23
Lund, not out	42
Hayer, b. Roberts	4
Bainbridge, b. Smith	0
Rosenfeldt, c. McGruther, b. Mathers	5
Walbran, b. Mathers	22
Extras	15
Total	173

Bowling: Smith, 2 for 13; Abbott, 3 for 28, Mathers, 2 for 27; Roberts 2 for 34; McGruther, 1 for 16.

S.M.T.C. v. S.H.C.

The third series of matches, played at the Auckland Grammar School ground, between Sacred Heart College and S.M.T.C., resulted in a win for Sacred Heart on the first innings.

S.H.C. won the toss and decided to bat. Clancy and O'Donohue opened, but their partnership was short as Clancy was dismissed with the score at 1-1-0. The next wicket fell at 2-2-16. Here, the S.H.C. captain, was next man in and, quickly settling down, played a brilliant innings of 103, not giving a chance until being nearly caught and bowled by Wiles. The remainder of the S.H.C. batsmen batted well against keen bowling, and the innings closed for 228.

With 35 minutes to bat Randrup and Malvon opened for Technical, but Malvon's wicket fell early, 4-1-0. McLean then partnered Randrup and, facing opponents out for 140, although the first two wickets realised over half of the score. After a bad start Bundoek and Emus held the fort and we ended up with quite a reasonable score, having passed the century. Owing to shortage of time, the game could not be played out.

The third game, against Auckland Grammar B, was unfinished, with one day's play only.

Harris, Coulter and Emus proved successful with bowling, and Bundoek, Irving, Coulter, McLean, Jones and Emus were reliable batsmen.

Team: Emus (captain), Harris, Coulter, Bundoek, Irving, McLean, Jones, Patterson, Annan, Bentley, Robertson and Morrison.

S.H.C.—First Innings.

Clancy, lb.w. Wiles	0
O'Donohue, c. Woolley, b. Lund	24
Shedden, c. Wiles, b. Lund	16
Hare, c. Wiles, b. Wiles	109
Conole, b. Wiles	15
Sullivan, b. Lund	6
Kawe, c. Malvon, b. McLean	4
Reid, c. Lund, b. Hayer	11
Bond, c. Thompson, b. Lund	20
Dobbyn, b. Woolley	5
Pipe, not out	5
Extras	12
Total	228

Bowling: Lund, 4 for 45; Wiles, 3 for 54; McLean, 1 for 23; Woolley, 1 for 21; Hayer, 1 for 14; Thompson, 0 for 21; Walbran, 0 for 30.

TECHNICAL—First Innings.

Handrup, b. Reid	27
Malvon, b. Bond	0
McLean, b. Bond	0
Thompson, lb.w. Clancy	45
Brady, c. Clancy, b. Kawe	27
Wiles, b. Kawe	54
Lund, c. Sullivan, b. Sheddson	9
Woolley, b. Clancy	14
Walbran, c. Reid, b. Clancy	0
Hayer, not out	0
Rosenfeldt, b. Clancy	0
Extras	5
Total	138

Bowling: Clancy, 4 for 18; Sheddson, 1 for 7; Reid, 1 for 15; Bond, 3 for 31; Kawe, 2 for 35; Hare, 0 for 19; Sullivan, 0 for 8.

The 1935 First Eleven, is a young team which contains some very promising players who should be the nucleus of a good team next year. The boys are grateful to Mr. Taylor for his patient and skilful coaching. They feel that during the season they have made a definite improvement, which they hope to continue when cricket is resumed in the third term. A valuable innovation introduced by Mr. Taylor is a wooden cradle made by the Woodwork Department for fielding practice. Half an hour per week on this apparatus will improve the fielding wonderfully.

SECOND ELEVEN.

The first term games were played under the unusual circumstances of having most of the team of the previous year available. As a consequence very satisfactory performances were put up, and the older hands were able to provide a stiff opposition when things were going against the team.

In the first game, against Auckland Grammar A, Grammar were put out for the small total of 62. This was due to the meritorious bowling of Harris and Coulter. Our boys fared little better and had lost 8 wickets for 62 at the end of the day. Continuing the following week, the whole team was put out for 73, Irving having made a good stand. The Grammar team did much better in their second attempt, and declared with their score at 104. Various causes contributed to the downfall of the Technical team in the second innings, and, after playing extra time, they were all out for less than the number of runs required.

In the second match, against Mount Albert Grammar, an experienced team, we managed to put our opponents out for 140, although the first two wickets realised over half of the score. After a bad start Bundoek and Emus held the fort and we ended up with quite a reasonable score, having passed the century. Owing to shortage of time, the game could not be played out.

The third game, against Auckland Grammar B, was unfinished, with one day's play only.

Harris, Coulter and Emus proved successful with bowling, and Bundoek, Irving, Coulter, McLean, Jones and Emus were reliable batsmen.

Team: Emus (captain), Harris, Coulter, Bundoek, Irving, McLean, Jones, Patterson, Annan, Bentley, Robertson and Morrison.

THIRD ELEVEN.

This year's Third Eleven proved to be an effective team on the field, but the batting was weak on several occasions. Due to fairly accurate fielding and bowling we were able to dismiss the opponents for less than a century, but our own batting score never reached great heights.

The attack, which was quite well handled by the captain, Roberts, consisted mainly of Hart, Roberts, Bolton and Stevenson. These were assisted by some fielding by Montague, Thompson, Stevenson and Speer playing some good knocks, the batting was generally weak.

The games were interesting. We won the first by 2 and lost the second by 2 runs. The margin was never very large. We were greatly assisted by the services of a regular scorer, C. Williams.

Games played: Versus M.A.G.S. A, won 73 to 71; v. M.A.G.S. B, lost 44 to 46; v. Takapuna, lost 16 to 17; v. Sacred Heart, won 66 to 25; v. Grammar, lost 50 to 54.

Team: Roberts, Bolton, Montague, Stevenson, Pike, Morris, Hart, Speer, Carr, Thompson, Barry, and Matheson.

Parts of the famous Lord's cricket ground—scene of many a hard-fought test—are 150 years old. The centre portion of this playing area of eight acres, is to be returned at a cost of several thousand pounds.

FOURTH ELEVEN.

Team: Jensen (captain), White, Hannam, Yates, Robertson, Findlay, Selwyn, Otter, Smithers, Stanley, Roffe, Balidick.

Owing to the Domain being engaged for athletic fixtures, only five matches were played in the first term. Of these two were won easily and the remaining three lost by a very small margin. One of these was against Takapuna Grammar (65), when four of our batsmen were run out through over-eagerness to pass that score. Consequently, the last wicket fell at 15. In the game versus S.M.T.C. B, it is sad to relate that, owing to a good strike by Hannam, an excellent young wicket-keeper, a loss was sustained.

At the close of the brief first term season, the team was developing into a very fair combination. In the final game versus Mount Albert Grammar, the bowlers had a veritable feast, dismissing their opponents for 18 runs. The most promising batsmen were Robertson, White, Hannam and Smithers, who, with the exception of the wicket-keeper, Hannam, also bowled well. A word of praise must be given to Jensen, who proved an excellent captain.

FIFTH ELEVEN.

The Fifth Eleven opened the season against Grammar and won an exciting game by 4 runs. Stanley and White were top scorers, while White and Pike shared the wickets.

After this match the team should do well later on.

Hannam was a smart wicket-keeper, and the most consistent bat, his 35 against the Fourth Eleven, being a particularly good effort in which he combined a sound defence with an ability to pick out the right ball to hit.

Veitch, a left-hand bat, who prefers slow bowling, G. Ash and Pratt, also did well with the bat.

Wilson, a left hand, leg break bowler, who played in the last two matches, taking six wickets in each, was a distinct find. T. Ash and Pratt were the most successful of the other bowlers tried.

The fielding was patchy, except in the match against the Fourth Eleven, when both the ground work and the catches taken showed a keenness which was not so much in evidence in the other games.

Results were: Versus Grammar, won on first innings; v. Takapuna Grammar, lost on first innings; v. Kowhai, lost on first innings; v. Fourth Eleven, won on first innings; v. Dilworth, lost by an innings.

Team: Pratt (captain), Hannam, Veitch, T. Ash, G. Ash, Tuzby, Ebrey, Wilson, Fuller, Baker and Owen.

SEVENTH ELEVEN.

During the 1935 cricket season, the Seventh Eleven were not very successful, drawing one match, and losing the rest, but were very unlucky at times.

The best effort of the team was in their first match when in Technical Seventh's second innings they completed 77 for 7 wickets, but were beaten on the first innings. The best bowling average of the season was that of Armstrong, who took 7 for 12 against Sacred Heart, including the hat trick. Other good bowling performances during the season were as follows:—

Davison 6 for 30, Graham 5 for 20, Nicholson 3 for 7.

The following were the best scores made: McCully 21 runs; Swanburg 16; Brown 10; Howarth 13; Day 11; Armstrong 10.

There are brighter hopes for next season, and we can be sure that all the members of the team will do their best for the school.

Team: Davison (captain), Graham, Nicholson, McCully, Swanburg, Brown, Howarth, Day, Armstrong, Ryland, King.

ATHLETICS

ATHLETIC SPORTS—GIRLS.

A's for Athletic Sports held once a year. B is for films with its colours of cheer. C is the cheering from spectators keen. D's the Domain—a most colourful scene. E's for the efforts that everyone makes. F is for frenzy at someone's mistake! G's for the grit that will tell in the test. H is for Hindley, in girl's points the best. I is for interest at times very tense. J is for juniors, in numbers immense. K is the keenness that all Houses show. L's the loudspeaker; it lets the world know! M's melon—semi-circular slices! N is for noise in moments of crises. O's overhead ball with much effort won. P is for practice that's part of the fun. Q is for quills—here one takes a long chance! R is for runners, who House-points advance. S is for Seddon, boy's House in the lead. T is the training competitors need. U is for unity; it makes teams fast. V is the vim that drives on to the last. W's Wellesley, last House in our rhyme. X is for Xmas; close the line! Y is for youth, in prominence here. Z is for zeal for the sports of the year.

GIRLS' ATHLETIC SPORTS RESULTS.

House Points—	
Hindley	102
Binns	93
Wellesley	91
Seddon	44

Champions—	
Senior: Rosa Tilby.	
Intermediate: Vera Faulkner.	
Junior: Margaret Gow.	

Championship Events.

- Intermediate Skipping Championship—V. Faulkner (H); 1; E. Hoskings (W); 2; E. Hutchinson (B), 3.
- 75 Yards Junior Championship: Skipping—M. Bedbrook (H); 1; J. Dale (B); 2; J. Sanders (B), 3.
- 75 Yards Skipping Championship: Intermediate—V. Faulkner (H); 1; E. Hoskings (W); 2; E. Hutchinson (B), 3.
- 75 Yards Skipping Championship: Senior—R. Tilby (H); 1; O. Darby (B); 2; C. Le Long (W), 3.
- 100 Yards Junior Championship—M. Gow (B); 1; J. Sanders (B); 2; D. Wooding (S), 3.
- 100 Yards Intermediate Championship—V. Faulkner (H); 1; E. Hutchinson (B); 2; T. Miller (H), 3.
- 100 Yards Senior Championship—R. Tilby (H); 1; M. Mullins (W); 2; O. Darby (B), 3.
- 220 Yards Junior Championship—M. Gow (B); 1; N. Critoph (B); 2; M. Bedbrook (H), 3.
- 220 Yards Intermediate Championship—V. Faulkner (H); 1; E. Hutchinson (B); 2; T. Miller (H), 3.
- 220 Yards Senior Championship—M. Mullins (W); 1; R. Tilby (H); 2; C. Cantlay (S), 3.
- Quot Throwing: Junior Championship—M. Gow (B); 1; J. Davis (W); 2; E. Noat (W), 3.
- Quot Throwing: Intermediate Championship—N. Noall (W); 1; G. Griffiths (S); 2; J. Sullivan (H), 3.
- Quot Throwing: Senior Championship—C. Le Long (W); 1; R. Tilby (H); 2; C. Cantlay (S), 3.
- Hop, Step and Jump: Junior Championship—M. Gow (B); 1; E. Noat (W); 2; A. Letica (B) and J. Pritchard (S), 3.
- Hop, Step and Jump: Intermediate Championship—J. Thompson (S); 1; E. Silva (S); 2; V. Faulkner (H), 3.
- Hop, Step and Jump: Senior Championship—R. Tilby (H); 1; O. Darby (B); 2; E. McKenzie (B), 3.

House Events.

- 440 Yards Junior Relay—Seddon, 1; Hindley, 2; Wellesley, 3.
 440 Yards Senior Relay—Hindley, 1; Wellesley, 2; Binns, 3.
 Overhead Ball: Junior—Wellesley, 1; Seddon, 2; Hindley, 3.
 Overhead Ball: Senior—Binns, 1; Hindley, 2; Wellesley, 3.
 Bean Bags: Junior—Wellesley, 1; Binns, 2; Hindley, 3.
 Bean Bags: Senior—Wellesley, 1; Hindley, 2; Binns, 3.
 Circular Ball: Junior—Hindley, 1; Seddon, 2; Wellesley, 3.
 Circular Ball: Senior—Binns, 1; Wellesley, 2; Hindley, 3.
 Flag Relay: Junior—Binns, 1; Wellesley, 2; Seddon, 3.
 Flag Relay: Senior—Hindley, 1; Binns, 2; Wellesley, 3.

ANNUAL ATHLETIC SPORTS—BOYS' EVENTS.

The hearts of the boys beat high when the 25th of March dawned bright and clear. Soon they were streaming from all points of the compass to their meet—the Domain Cricket Ground—where their eager eyes were greeted by the carefully marked out tracks for the various races.

During the day C. Thorpe, the winner of the Senior Championship, put up a notable performance in breaking the 880 senior record by 5 seconds, his time being 2 minutes 11 seconds. Woolley equalled the shot put record of 20 ft 10in, and, as he is an intermediate, will probably improve on this performance next year. The championship results were:—

- Senior: C. Thorpe 1, Stevenson 2, Emus 3.
 Intermediate: Covey 1, E. V. Harrison 2, Morrison 3.
 Junior: R. G. Harrison 1, Shellac 2, Selwyn 3.

House Points—

Seddon	222½
Hindley	166½
Wellesley	60½
Binns	45½

Championships.

- 100 Yards Junior—Harrison (S), 1; Selwyn (W), 2; Smith (S), 3. Won easily. Time 12 seconds.
 220 Yards Junior—Shellac (S), 1; Harrison (S), 2; Selwyn (W), 3. Won by 3 yards. Time 27 4-5 sec.
 440 Yards Junior—Shellac (S), 1; Harrison (S), 2; Selwyn (W), 3. Time 62 1-5 seconds.
 880 Yards Junior—Smith (S), 1; Selwyn (W), 2; Shellac (S), 3. Time 2 minutes 28 2-5 seconds.
 Long Jump: Junior—Harrison (S), 14ft 7in. ; Morton (S), 2; Swanberg (B), 3.
 High Jump: Junior—Shellac (S), 1; Harrison (S), 2.
 100 Yards Intermediate—Covey (H), 1; Morrison (H), 2; Harrison (S), 3. A wonderful finish, Covey just breasting the tape by inches. Time 11 2-5 seconds.
 220 Yards Intermediate—Covey (H), 1; Harrison (S), 2; Manning (S), 3. The race was never in doubt. Time 26 4-5 seconds.
 440 Yards Intermediate—Covey (H), 1; Manning (S), 2; Harrison (S), 3. Covey again showed his burst of speed 20 yards from the tape, and won easily. Time 64 1-5 seconds.

- 880 Yards Intermediate—Woolley 1, Covey 2. Good finish. Time 2 minutes 20 seconds.
 90 Yards Hurdles: Intermediate—Manning (S), 1; Covey (H), 2; Harrison (S), 3. Manning showed his ability as a hurdler.
 High Jump: Intermediate—McPherson (S), 1; Harrison (S), 2; Morrison (H), and Manning (S), equal, 3. Height: 4ft 9½in. This bettered the senior winner's height of 4ft 7in.
 Long Jump: Intermediate—Harrison (S), 1; Morton (S), 2; Swanberg (B), 3. Distance: 14ft 7in.
 100 Yards Senior—Thorpe (H), 1; Stevenson (S), 2; Emus (W), 3. Only inches separated the placed boys. Time 11 2-5 seconds.
 220 Yards Senior—Emus (W), 1; Stevenson (S), 2; Thorpe (H), 3. Led all the way, but 20 yards from the tape Stevenson put in a burst, only to be beaten by a foot, with Thorpe 2 yards away third. Time 24 4-5 seconds.
 440 Yards Senior—Emus (W), 1; Thorpe (H), 2; Stevenson (S), 3. Emus ran a well-judged race, in good time. Time 57 seconds.
 880 Yards Senior—C. Thorpe (H), 1; Tweedie (S), 2; Stevenson (S), 3. The first time round the field punched but Thorpe took charge on entering the straight to do 2 minutes 11 seconds—record.
 1 Mile: Senior—Tweedie (S), 1; Taylor (W), 2; Thorpe (H), 3. Won easily. Time 4 minutes 49 4-5 second. Three-fifths outside the record.
 120 Yards Hurdles: Senior—Stevenson (S), 1; Jensen (H), 2; Thorpe (H), 3. Stevenson was never troubled. Time 19 3-5 seconds.
 High Jump: Senior—Stevenson (S), 1; Jensen (H), 2; Thorpe (H), 3. Height 4ft 7in.
 Long Jump: Senior—Thorpe (H), 1; Emus (W), 2; Thompson (B), 3. Distance 16ft 7in.
 Relay Races: Senior—Hindley 1, Seddon 2, Binns 2. Intermediate—Hindley 1, Seddon 2. Junior: Seddon 1, Hindley 2, Wellesley 3.
 Old Boys' Race—Mitchell 1, Clark 2.

Boys' Handicap Events.

- 100 Yards, Under 13—Patterson (S), Time 12 3-5 seconds.
 440 Yards, Under 15—Murphy (W), Time 64 seconds.
 440 Yards, Under 16—Brennan (H), Time 59 1-5 seconds.
 440 Yards, Over 16—Carr (H), Time 58 3-5 seconds.
 880 Yards, Over 16—Carr (H), Time 2 minutes 14 seconds.
 High Jump, Under 16—G. Chisholm (S), 4ft 11in.
 Long Jump, Under 16—D. Jones (H), 15ft 9½in.
 Long Jump, Over 16—Findlay (S), 17ft 1-4in.
 220 Yards, Under 16—Kinchant (W), Time 27 4-5 seconds.
 220 Yards, Over 16—Sutton (H), Time 26 1-5 seconds.
 100 Yards, Over 16—Sutton (H), Time 11 2-5 seconds.
 High Jump, Over 16—J. Taylor (B).
 120 Hurdles: Open—R. Stevenson. Time 20 4-5 seconds.
 One Mile Cycle—Hooker (H), 1; Chappell (S), 2.
 Two Mile Cycle—Hooker (H), 1; Pooch (S), 2.
 220 Yards, Under 15—Carson (S), 1. Time 23 1-3 seconds.
 One Mile: Open—Tweedie (S), 1. Time 5 2 2-5.
 Throwing The Cricket Ball—Ozich (B), 1. Distance, 265ft 6in.
 Tug-of-War—Junior: Seddon, 1; Intermediate: Binns, 1; Senior: Seddon, 1.



NOVEL EXHIBITION BY GYMNASIAC SQUAD
 —By Courtesy of the "Auckland Star."



SUCCESSFUL COMPETITORS AT BOYS' ATHLETIC SPORTS.

—Photo by G. K. Heimbrod.

ATHLETIC CHAMPIONSHIPS—SECONDARY SCHOOLS' MEETING.

The 1935 team is the best all-round team that the College has yet produced. Their efforts at the eighth annual series merit our warmest congratulations. For the first time the Seddon Memorial Technical College (bracketed be it noted with Otahuhu Technical High School), emerged victorious in one of the group championships, namely, the Junior. If one we can retain these promising juniors at school for two or three years, we may yet win the intermediate or even the senior championship. Last year also the Junior boys gained most points, but, unfortunately, Clarke and Herring left at the end of the year and deprived us of certain points in the intermediate section this year.

The first race of the day in which we were represented was the Senior 880. Watt (A.G.S.), the indefatigable miler, set up a hot pace all the way, followed by Atkin-stall (A.G.S.) and Thorpe (S.M.T.C.). These were the final placings, and, had Thorpe lengthened out his stride in the early stages, he would have got second. He ran a good race and his time must have been inside his own school record of 2:11.

The hearts of the Technical supporters were gladdened by the fine efforts of Woolley and Manning, who ran second and third respectively in the intermediate 440, which was won by Mansill (A.G.S.) in the record time of 54 4-5 seconds. (Previous record 55 seconds). In the nearest race Selwyn secured our only individual win in the Junior 100. Following this victory there was a lull in our successes until Covey ran a close third in the Intermediate 100. Covey has a wonderful burst of speed for his size, and he will be outstanding when he has learnt to get off the mark smartly.

Tweedie ran a good race in the Senior Mile. It was gratifying to see both Tweedie and "Pat" Taylor keeping right up with Watt and Hill (A.G.S.) all the way. Watt, the record holder, sprinted away in the final lap but Hill and Tweedie cut down his lead considerably in the straight. Taylor came in fourth—a very good effort. Next, Schellac, a promising Junior, who was runner-up in the College Junior Championship, ran a close second in the Junior 440, and a little later Emus was just out of a place in the Senior 440, which provided the most exciting and gruelling finish of the day.

Our chief and final glory came in the relay races, which carry double points. The Junior event consisting of four distances of 110 yards, saw Selwyn (S.M.T.C.) get a lead which, by good changing of the baton, was increased successively by Wilson and Schellack, for Harrison to win easily and thus gain the 10 points which enabled us to tie with Otahuhu for the Junior Championship. In the Intermediate relay of 880 yards Covey took over the baton nicely from Woolley to fall in behind A.G.S. Eventually, the team finished in second place. We were not so successful in the Senior race. Emus, exhausted by his hard race in the Senior 440, could not stand the hot paces set in the opening quarter of the mile relay. Thorpe, however, once again ran a very smart half-mile.

Altogether, the day was the most successful one that the College has experienced at the Secondary Schools' Championships. This is due chiefly to the training given the boys after school at Blandford Park by the athletic coaches, and partly, perhaps, to the fact that our own sports were held a good time before the secondary championships, thus allowing ample time to select and train a team. However, before we can reach the greatest heights in athletics, we must produce boys to represent us in the hurdles, jumps and field events. These are all events in which specialised training extending over a period of several years is needed. In the shot and discus the choice is narrowed considerably by the fact that good physique is necessary. Think it over, first-years! NOW is the time to begin training.

Team.

Senior: Emus, Jensen, Stevenson, Taylor, Thorpe, Tweedie.

Intermediate: Covey, Harrison, E. V. Manning, McPherson, Morrison, Woolley.

Junior: Harrison, R. G. Selwyn, Schellac, Wilson.

SWIMMING

GIRLS' SWIMMING SPORTS.

Points:	Binns	63
	Seddon	59
	Hindley	43
	Wellesley	33

Senior Champion: C. Waters (B), 9 points.

Runner-up: O. Darby (B), 4 points.

Intermediate Champion: M. Glassey (S), 6 points.

Runner-up: E. Black (S), 5 points.

Junior Champion: G. Priestley (S), 9 points.

Runner-up: M. Stewart (B), 4 points.

The First of March dawned fine and clear,
The year of '35.

And forth there streamed to Shelly Beach,
Of girls a buzzing hive.

For 'twas the day to swimmers dear,
When they their skill might show

In how to dive, neat jump, life-save,
Things that all folk don't know!

Some pleasant sights did then appear,
To our admiring eyes,

For right and left, all round, in fact,
Mermaids now did arise!

And soon in mortal combat they
Did furiously engage

In breaststroke, free-style, overarm,
The struggle fierce did rage.

The "100 yards" it made us gasp!
It did the swimmers, too!

And while we cheered, we realised
What training hard can do!

The dressing-race meant swimming hard,
When 'cross the baths you'd leapt,

You'd find the garment you'd just shed
The one you should have kept!

Form-relays then and House events
Did occupy us all—

"Binns, Seddon, Hindley, Wellesley!"
Near caused the roof to fall!

The final House-points then appeared,
Runners-up and champions three—

Binns leads in Swimming Sports, we knew
About the rest—we'll see!

ODE IN COMMEMORATION OF SEDDON'S VICTORY.

As I laye a-thynkinge, a-thynkinge, a-thynkinge,
Merrie shout the boys of the form of E2A,

For they swim past through the tide,
They have champions on their side,

And before the race is finishd they can safely about
"Hurraay."

As I laye a-thynkinge
They had easily won the day.

As I laye a-thynkinge, a-thynkinge, a-thynkinge,
Gaily rang the shouts for the victors of the day.

It was a gallant sight
As they strove with all their might

But Seddon's men were leaders all the way.
As I laye a-thynkinge

All had much to say.

BOYS' SWIMMING SPORTS.

The Boys' Swimming Sports were held at the Shelley Beach Baths on Tuesday, March 9. The weather was dull and mild but the programme was varied and exciting. The only people who enjoyed themselves more than the spectators were the competitors.

The school congratulates Pascoe, the senior champion, and Jones, the junior champion. Both these boys broke existing records—Jones one, and Pascoe no less than three. Pascoe's swimming was the outstanding feature of the day.

Senior Championship.

Event 1.—220 Yards: A. Pascoe (W), 1; Finlay (S), 2; Wallace (H), 3. Time 2 minutes 43 1-5 seconds (record).
Event 2.—Next Header: Finlay (S), 1; Anderson (B), 2; Wallace (H), 3.
Event 3.—50 Yards Backstroke: Pascoe (W), 1; Finlay (S), 2; Stevenson (S), 3. Time 37 2-5 seconds (record).
Event 4.—50 Yards Breaststroke: Pascoe (W), 1; Finlay (S), 2; Stevenson (S), 3. Time 41 4-5 seconds (record).
Event 5.—140 Yards: Pascoe (W), 1; Wallace (H), 2; Stevenson (S), 3. Time 5 minutes 53 1-5 seconds (record).

Event 6.—Fringe Dive: Pascoe (W), 1; Finlay (S), 2; Wallace (H), 3. Distance 42ft 7 1/2 in.
Event 7.—50 Yards Freestyle: Pascoe (W), 1; Finlay (S), 2; Wallace (H), 3. Time 29 4-5 seconds (record).
Result of Senior Championship: Pascoe (W), 39 points, 1; Finlay (S), 20 points, 2.

Junior Championship.

Event 1.—220 Yards: Jones (B), 1; Wiles (S), 2; Rickman (W), 3. Time 3 minutes 4 2-5 seconds (record).
Event 2.—Next Header: Wallbrin (H), 1; Rickman (W), 2; Wiles (S), 3.
Event 3.—50 Yards Breaststroke: Jones (B), 1; Parris (W), 2; Wallbrin (H), 3. Time 41 4-5 seconds (record).
Event 4.—Fringe Dive: Wiles (S), 1; Wallbrin (H), 2; Parris (W), 3. Distance 41ft 10in.
Event 5.—50 Yards: Harrison (S), 1; Wiles (S), 2; Wallbrin (H), 3. Time 31 4-5 seconds (record).
Result of Junior Championship: Jones (B), 13 points, 1; Wiles (S), 11 points, 2.

Relay Races.

Junior House Teams: Hindley, 1; Seddon, 2; Wellesley, 3.
Senior House Teams: Wellesley, 1; Binns, 2; Seddon, 3.
First Year Forms: E1E and F, 1; M.E. 1C and D, 2.
Second Year Forms: E2A, 1; M.E.2, 2.
Third and Fourth Year Forms: A.A. 1; E3B, 2.

Handicap Events.

440 Yards: Open—Pascoe (W), 1.
220 Yards: Open—Jones (B), 1.
100 Yards: Open—Nunnis (W), 1.
50 Yards (under 15)—Parris (B), 1.
50 Yards: Open—Chaffield (B), 1.
90 Yards (under 15)—Bundock (H), 1.
50 Yards (under 14)—Schleeta (W), 1.
50 Yards (under 12)—Moulder (S), 1.
50 Yards Breaststroke: Open—Jones (B), 1.
Fringe Dive: Handicap—Woolley (S), 1.

Novelty Events.

Egg and Spoon Race—Riddell (H), 1.
Corky Dive—Morris (D), 1.
Pinto Dive—Hamblin (S), 1.
Learners Race—Penhalligan (S), 1.
High Points: Seddon, 53; Wellesley, 49; Binns, 45; Hindley, 41.

Great Field Athletics—In 1928, a sixteen-pound shot put record of 21ft 7 3/8 in. was established, but, last year, Jack Torrrence, U.S.A., set the amazing record of 27ft 1in of the same calibre in Matti Jarvinen's fellow-countryman of that wonderful Finnish all-round, Matti Shipah, who delighted Aucklanders with his javelin throwing this year. Jarvinen holds the world's best javelin throw at 249ft 5in, and has since done 251ft 6in.

TENNIS

GIRLS' TENNIS NOTES, 1934-5.

On a fine Thursday morning of October, 1934, eight tennis enthusiasts from S.M.T.C. assembled at the Windmill Road Courts to contest the Senior Cup. Time passed quickly, and so did the games, although each of them was evenly contested and kept throughout the keen interest of those who watched. The final game and the most interesting was that between Connie Clayton and Flora Teppapa. Flora won the first set, 6-4, and in the second set Connie retained the lead. Good tennis was played by both girls, but Connie's superior play gained the match for her. After congratulating the winners, we returned to school, having thoroughly enjoyed the day's play.

In the Junior championship, Nora Macdonald was the winner from Betty Gravill, who proved a strong opponent. The school team won in the matches played at the Domain Courts against Otahuhu Technical College, and a return game played at Otahuhu left us in possession of the laurels.

There were not many S.M.T.C. girl entrants for the Secondary School Championships, Rona Wilson, who won three games, being the most successful.

BOYS' TENNIS—COLLEGE CHAMPIONSHIPS.

The annual championships were held in December, 1934, at the Royal Oak Tennis Club's courts. In the senior championship, Wallace, Wallace, Wallace, Cox, Wakefield and Langton. Wallace had to work hard to defeat Cox, who proved a very determined fighter, but Wakefield, and Langton, in spite of the fact that Langton was playing quite well. The final proved very disappointing as the standard of play was low and the match was a rather one-sided affair which they seemed unable to grasp. Wakefield won after three dreary sets, throughout which his service had been deplorable. Although Wallace won the middle set he was never confident, and at no time looked like a winner. Wakefield has a good, natural style, and with practice, could make a fine player.

In the senior doubles Cox and Burgoyne easily defeated Wakefield and Taylor, and then went on to win comfortably from Wallace and Langton. Both the winners were steady and determined, while Wallace was still unhappy about his game, and Langton was unable to build up his partner's confidence. It must have been a disappointing tournament for Wallace, who is keen and eager, and has taken the game very seriously, but, on the day, he could do nothing right. In the junior singles Lind outscored the critics by defeating Manning, who was considered a likely winner. The semi-finalists were Lee, Smith, Burgess and Campbell. Smith and Burgess easily defeated their opponents, and met in a close final, which D. Smith won, 7-5, 2-6, 6-3. Smith had a good forehand which he used to advantage. Burgess was extremely well served. Burgess fought hard but his faulty tactics in playing to Smith's forehand, cost him the match.

Secondary School Championships.

In the Secondary School Championships we entered fewer boys than usual but our representatives performed well and needed only a little more skill to have won. In the junior event Hall and Lee represented the College. Hall was defeated in the semi-final by the ultimate winner, after three close sets; while, playing with Lee, he reached the semi-final of the doubles. His performance was very good and, as he is trying very seriously to improve his stroke production, he should prove a worthy representative next year. In the intermediate section Harrison reached the third round of the singles, and, with Manning, in the third round of the doubles. E. Wallace was defeated only in the final of the intermediate, which he played well to reach. His temperament is good and he possesses excellent technique, but has not yet had sufficient match experience to know when to attack. He has every reason to be satisfied with his performance and he seems to set the pace and attack, should do even better next year. Our representatives in the senior section was S. McE. Wallace, who was defeated in the quarter-final. He played well and was striking the ball very nicely, but was defeated after a very close game, by his old enemy, lack of confidence.

TECHNICAL SECTION

MECHANICS - ELECTRICITY ENGINEERING - BUILDING

FOOD FRAUDS - WHAT THE HEALTH DEPARTMENT PROTECTS US FROM

A HISTORY of the adulteration of foods and drugs is amusing to people who are accustomed to our present day standards of food quality. Fifty years ago things were far different. Tennyson wrote—"and chalk and alum and plaster are sold to the poor for bread."

It is interesting to note that the oldest English record of adulteration is in the Doomesday Book. In the reign of Edward the Confessor, a dishonest brewer was drawn round the town in the cart in which rubbish was collected. In the good old days she was, of course, given special attention, and its purity was safeguarded by appointment of ale-tasters, who took oath to try, taste and assize the beer before it could be sold. One test applied was to pour some of the ale on a well-cleaned wooden seat; upon this the ale taster sat in leather breeches until the ale had dried; a difficulty in rising was taken as proof of the presence of added sugar.

A writer in 1874 mentions a number of adulterants used in butter. Of course, then, as now, margarine was sometimes sold as butter. These substances were reported as having been found in butter: water, salt, silicate of soda, chlorids of calcium, starch, potatoes, flour, cheese-stuff, rag pulp, gelatine, beef and mutton fats.

Some old journals give a humorous series of letters based on a discovery by an analyst. He found that when butter and margarine were left exposed to the deprivations of mice these animals would eat the butter and always left the margarine practically untouched. "How would it do," he wrote, "to make this sentence on the part of mice the basis of a rough method of testing butter?" Methinks the words "Mouse test" would look and sound remarkably well. The mice would be kept in a cage and the suspected fats temptingly displayed on watch glasses arranged on a little shelf running from one end of the cage to the other. Another correspondent suggested, "Cats might be employed in a precisely similar manner to rapidly analyse milk, and thus supply a long-felt want."

In recent years the vigilance of the Public Analysts keeps the practice of adulteration in check, but cheese was reported in Surrey with a coating of tallow and barites amounting to about 20 per cent of the weight, and in 1915 an article was offered for sale to grocers under the name of Roka Tea, which consisted of thin moulded sticks composed principally of starch and coloured to resemble tea stalks. This, it was claimed, obviously with truth, would reduce the quantity of tannin in the beverage.

A few years ago chocolate "Easter eggs" offered for sale in Liverpool were found to contain 3.5 per cent of sand, particles of glass, traces of lead, copper and zinc, and a considerable quantity of seawater. It was ascertained that they had been made from the sweepings of a chocolate factory. Needless to say, they were seized and destroyed.

Recent food adulterants of special interest are Yeast extract, in most extracts ground apricot kernels sold as ground almonds; so-called "cream cheese" containing 2 per cent of fat; cream made from various fats not that of milk and sometimes from brains; ordinary bread and flour sold at special prices as food for diabetic patients; soya bean oil, and even coloured paraffin substituted for olive oil. The reader may say that, of course, this is all done with and in New Zealand everyone is honest. The Dominion Analyst does his best to see that it is so, but occasionally interesting discoveries are made. Some adulterations are lamentably frequent. Excess water in butter and bread, and cream lacking butterfat are fairly common. Milk has been found to contain water and preservatives. Beer frequently contained salt, but brewers do not often offend nowadays, though wrongly labelled spirits are found. Artificial colouring is found in fruit drinks, jam, sausages, and applied to smoke fish to make them appear well smoked. Preservatives have been found in butter, milk, cream, bacon, whitebait and cordials. One sample of tea actually contained 20 per cent of Condy's crystals. Starch has been found in ice cream, and fizzy drinks frequently contain saccharin instead of sugar. Condensed milk has been sold as evaporated cream, and custard powder labelled "egg" and "cream" when its contents were dyed and flavoured confection. This labelled "pork and beans" contained only 1-3 of an ounce of pork. Jelly crystals have been made up with low grade gelatine—a quality usually used as glue. Apple pulp in other jam has been detected on a number of occasions. In medicine methylated spirit has been used in tincture of iodine, and during the influenza epidemic in quinine. The author of the last fraud was fined £25 for the offence. Some Aucklanders may remember the result of a milk feed some years ago, when milkmen added Epsom salts and tartaric acid to their rival's milk.

The Dominion Analyst and his staff act as our protection from the dishonest trader, and it is very seldom anything is heard of his work. We may rest assured that detection of fraud is almost certain with the elaborate precautions taken by the Health Department and the Dominion analyst, and our thanks are due to them for the excellent state of our food supply.

PAMPAS GRASS—USE AS CATTLE FODDER.

Farmers throughout New Zealand are keenly interested in an experiment carried out on the Otago Plains by Mr. A. McClean. For some years he has been feeding his cattle on the succulent giant grass, commonly known as pampas, a native of South America, which has now been naturalised in New Zealand. Where cattle have been allowed to feed on the pampas grass, the net result has been an increase of 3 per cent or more in the butterfat yield. As soon as they returned to the ordinary grass pasture the butterfat content fell. In the opinion of Mr. B. C. Aston, chief agricultural chemist of the Department of Agriculture, this is one of the biggest single discoveries which has been made in New Zealand. It is quite possible that the problem of providing a cheap winter fodder has been solved.

THE MYSTERY OF NAVIGATION

THERE is a story, common amongst seamen, which will serve to illustrate the object of this article.

It may or may not be true. I leave you to judge. A newly-elected First Lord of the Admiralty was paying his first official visit to a destroyer. He was received with all due pomp and ceremony and escorted to the companionway leading to the captain's quarters. There, viewing the steep ladder and the unknown depths below, he staggered back in horror, and exclaimed: "Jehoshaphat! the durned thing's hollow!"

But to return to the subject. To most landsmen ships are a new and unfamiliar country, and it is a mystery and a thing of wonder to all but the seamen, how a ship is taken safely out of harbour, set fair on her course, and located day by day on her chart until she reaches her destination.

It is a thing of wonder, like all exact sciences, but it is far from a thing of mystery, as I will endeavour to show.

To start with, so long as land is in sight, the position of the ship may be located on a chart, or map of the sea, simply by drawing lines in the right directions from prominent points, which are visible to the eye, and can also be picked out on the chart.

At night-time lights can be observed, and the ship's position from hour to hour checked. Rocks and dangers are shown in their proper positions on the chart, and depths of water are marked at frequent intervals.

So far, so good, but on a fine day we can very rarely see more than fifty miles, usually much less.

If we still strike out to sea, we can see nothing but a complete circle of heaving water—not to mention, of course, an occasional flying fish, or even a whale.

Did I say nothing? If the day be fine there is always the sun overhead, to be replaced at night by the stars and maybe the moon.

Hence, any location of the ship must be by reference to these heavenly bodies; since we cannot trust the flying fish or even the whale to keep in the same position for any great length of time.

Not that the sun or stars stay still; but their movements from day to day, and from hour to hour are known and are tabulated in the Nautical Almanac. This appears a fearsome volume to the uninitiated, and suggests our days of mathematics; but it isn't as bad as it seems at first sight.

After a bit of practice the mathematics involved consist mainly of simple addition and subtraction, and this becomes a routine business.

The basic idea of most modern systems of navigation is as follows:—

We guess at the position of the ship, being assisted in our guess by the ship's log. This is a small streamlined propeller screw which trails astern on a long line, and spins a clock face mounted on the after rail of the ship. The propeller makes a certain number of revolutions per sea mile, and the clock face is graduated to read miles direct. We can thus tell how far the ship has done, subject, however, to the effect of heavy seas, tide sets, drift, and, of course, the accuracy of the log.

This guess at our position is called "Dead Reckoning." The navigator corrects this dead reckoning by his knowledge of tides and conditions, but even then, after a few days run, it would be dangerous to rely on it. So twice a day, or even often, a sight of the sun is taken to get the true position.

Using the position we have guessed at—our dead reckoning or D.R. position—we work out what the height of the sun should be at a certain time. Then we actually observe the sun through a sextant, or altitude measurer, and see what its height really is at that time. The difference between these results is the error of the dead reckoning and is measured in minutes of angle. This may be plotted on the chart and a line drawn at right angles to the direction of the sun. This gives us a line of position and we are somewhere on this line.

A second observation a few hours later gives us another line of position, and where these two lines intersect gives the ship's exact position.

I have purposely left out the little difficulties that arise, but I may not just allude to these, without explaining them.

First, the ship is moving, between these two sights, and hence changing her dead reckoning position. This change can be calculated. Second, a number of corrections must be made to the height of the sun, owing to refraction, dip of the horizon, etc. Third, the time itself must be corrected according to the position of the ship on the earth's surface. Greenwich, in England, is the standard position from which time is calculated, and ship's chronometers carry, or are corrected to, Greenwich time.

The ship's position may also be established from the stars and planets, or in extreme cases, from the moon.

To a novice, the difficulties in star sights are several, the main ones being:—

First—Stars cannot be seen during the daytime except in exceptional circumstances (as when a jib sheet block hits you over the ear—and this kind of star is unsuitable for calculation), and at night, the horizon is invisible or indistinct, making an ordinary sextant useless. Hence we have only about half-an-hour at dawn and at twilight in which to take star "shots."

Second—If the sky is at all cloudy, even if clear in patches, it is hard to pick out a particular star, and name it so that its tabulated angles may be found in the Nautical Almanac; even if one can recognise it amongst its fellow on a clear night.

Third—A star has to be picked up in the sextant telescope and gradually "brought down" to the level of the horizon. This, in a lumpy sea, when one cannot properly see the star, the horizon, or the jibe, is a bit difficult. Especially if it's a dawn sight and you've just got out of bunk, and find it hard to keep your eyes open sufficiently to see the sextant, let alone the star.

However, navigation is a fascinating subject, especially if one realises the principles underlying it.

When land first drops from view one has a feeling of being utterly lost, especially if on a small boat. The boat rolls and charges steadily along, leaving a track of foam and bubbles by day and a trail of phosphorescence by night as the only break in a monotonous expanse of lifting waters.

You anchor yourself firmly against the main boom, squint at the sun with the true professional squint, read your instruments, and dive below to wrestle with a dancing and twisting page of figures.

Then, with more assurance than you actually feel, you prick a spot on the cart and say, "Were there, boys!"

And the crew say, "By Jove, eh? Only another 100 miles to a landfall! What'll we see first?"



THE BROODER AT THE FARM AREA, BENSON ROAD.

—By Courtesy of the "Auckland Star."

Again with considerably more assurance than you feel, you say, "Such and such a lighthouse, with a high land of so and so a bit to starboard." And you pack away your books and sextant and go to sleep.

Next morning, you've done seventy of the hundred miles, by the log, Thirty miles to go! No sign of land! Those clouds ahead may mean land, but there are also clouds astern, and right abeam. Am I right? Or are we still in the middle of the Pacific?

No! I'm sure I'm right! And yet—? A few seagulls out to starboard, visible occasionally on the crest of a wave, look hopeful. That's all! "What about going up to the cross-trees, Bob, to have a look? If we're within thirty miles you'll see something from there."

"Not in this roll—I'm the steward to-day, not the look-out! Go up yourself. You're the one that's got us here, and if you've forgotten a cosine or a logarithm or something, it's your look out!"

The navigator protests that his job is shooting stars, not climbing masts—but to no avail. In the end curiosity and anxiety get the better of his laziness, and up he goes, resolving not to look shorewards (or will it be shorewards?) until he gets to the cross-trees.

He reaches there after a battle, losing a yard of skin as the boat rolls to windward. Now for it!

As the boat rolls hard to leeward he turns and looks ahead—

Sure enough. Land-ho! Why should he feel so surprised—he expected it?

A dim shape of low hills stretches far to the eastward, while almost dead ahead the low, black tips of the headlands show up, with the slim form of the lighthouse shining white in the morning sun. A perfect landfall; and he lets everyone know it!

The crew are also elated, but more from the thought of reaching port than for any other reason.

The navigator, however, feels pleased in a different and far deeper sense.

Pleased because the sun and the stars have run to schedule again, a fact at which he never ceases to marvel. Pleased because his mathematics have been accurate, another fact at which he marvels, knowing his shortcomings in this subject, and finally pleased because his has been the responsibility and anxiety of leading the ship across the "trackless paths of the uneasy ocean," safe to port.

—J.B.

THE WONDERFUL SOYA.

The world's most wonderful plant is the soya bean. It grows with extraordinary rapidity, taking only one hundred days to mature from seed to plant and seed again, and is of a bright scarlet colour, which afterwards fades to green. It needs very little attention, and will yield as much as one hundred bushels to the acre. It is said to improve the land on which it grows. The beans can be made into flour, salad-dressing, lubricating and illuminating oil, glycerine, paint, varnish, celluloid, printing ink, soap, waterproofs, explosives, linoleum, and substitutes for milk, rubber, coffee and margarine. The inhabitants of the East have used this magic bean for thousands of years, but it has only been introduced recently into Europe. In 1914 a member of the Royal Botanic Society obtained 13 tiny seeds, and every year he has grown the bean, selecting the seeds most likely to stand the British climate. Now he has 60,000 seeds. The plant is very hardy, but at present it needs sunshine. It is hoped in time to produce seeds that will be able to do without sunshine, and then the soya bean will be grown in large quantities.

PLANETARY SECRETS DOES ONLY THE EARTH HOLD LIFE

SOME billions of years ago a colossal star swam into our part of the heavens. It drifted near our sun and by the sheer gravitational power of its mass pulled out of the sun long streamers of gas. The wanderer passed on. The streamers shrivelled into globes that became our planets. So runs the prevailing theory of the solar system's origin, writes Waldemar Kaempffert in the "New York Times."

The odds are a hundred million to one against such an encounter. Hence Eddington remarks: "The solar system is not a typical product of the development of a star; it is not even a common variety of development; it is a freak!"

There are many reasons to suppose that the solar system may have been created thus. Jeans has pointed out that "the long filament pulled out of the sun is likely to have been richest in matter of its middle parts, these parts having been pulled out when the second star was nearest and its gravitational pull the strongest." String the planets in a line but preserve their relative distances from one another, draw a line round them and you have a cigar. In the middle of the cigar are Jupiter and Saturn, the two largest planets.

If we pursue the inquiry in Eddington's frame of mind we find that each one of the planets in the system is in its turn a freak. No two have identical sizes and masses or identical lengths of day and night, or identical atmospheres, or axes tilted at identical angles. Despite their common origin, the planets differ far more than do the children of the same family.

Life Hangs by a Thread.

It is because of the uniqueness of the solar system and the uniqueness of the earth that life is a precarious, exciting cosmic adventure. It literally hangs by a thread. Tilt the axis of the earth so that it assumes a new angle to the elliptic, lengthen or shorten the day or year materially, rob the atmosphere of its oxygen and water vapour, change the globular mass and therefore the attraction of gravitation, or greatly increase or decrease the distance from the sun, and every plant and animal perishes.

A combination of a dozen known conditions and perhaps many more that are not known made it possible for the first bit of protoplasmic ooze to become animate, reproduce itself and, what is more, evolve through the sponge, fish, reptile, bird, and mammal into Buddha, Leonardo and Beethoven. The many essentials of life are so remarkably interrelated that it seems as if being alive cannot be fortuitous, as if it is the very purpose of Nature to experiment with a thousand million stars to produce one little world for the creation of protoplasm capable of evolving into a myriad organic forms.

All this is borne in upon us by the recent discoveries that have been made about the atmospheres of the major planets. The astrophysicist with the aid of his spectroscopa transports himself through millions of miles to worlds incredibly terrifying and beautiful. Here, for example, are Drs. Silpher, Adel and Wildt in different parts of America and Europe piecing together the story of Jupiter, Saturn and Uranus, and here Drs. Walter S. Adams and Theodore Dunham, of Mount Wilson, revealing new facts about Venus.

Incredible Worlds.

Such work does much to dispel the notion that Jupiter is still red hot after a separation from the sun that must have occurred 5000 million years ago. Red heat implies a temperature so high that ammonia and methane would be decomposed. Their bands and lines would not appear in the rainbows that have been studied.

So, two new worlds are visualised. They have cores like the earth's—heavy, dense, solid lumps of rock or nickel-iron. Outside is a thick layer of ice under high pressure. Above that a highly compressed atmosphere with much hydrogen and ammonia and methane. Why the high pressure? Because of the known masses of the two planets. The clutch of gravitation upon them is more powerful than on earth. On Jupiter a man would find it difficult to lift his arm because of its weight. The earth lost most of its hydrogen long ago because of its small mass. Jupiter and Saturn retain their allotments because of their mass.

We need measurements of temperature to piece out the story.

What are the findings of Flett and Nicholson? Cold, bitter cold. Minus 229 degrees Fahrenheit for Jupiter and minus 250 for Saturn. The cold is so intense that ammonia freezes solid. Dunham, Silpher and Wildt independently reach the conclusion that the two great planets are wrapped in clouds of ammonia crystals. So thick are the clouds that it is impossible to see deep down to the surface of the planet, where the methane must be particularly rich. Light a match on that surface, whatever it may be, and the atmosphere would catch fire—become a roaring furnace if there were any oxygen. In fact, there would be an explosion, an instantaneous chemical combination that would yield carbon dioxide and water.

The ammonia clouds speed over the surfaces of the two planets and thus testify to terrific hurricanes travelling at 400 to 600 miles an hour on Saturn and at least 250 on Jupiter. Why these terrific blasts? No one knows. Our own winds are the result of the sun's heat. But at the distance of Jupiter and Saturn the sun's heat is so remote that it can hardly warm chilly hydrogen and solid ammonia crystals. Here we have the chief argument of those who still believe that Jupiter and Saturn are red hot.

Venus and Mars.

The same method of spectroscopic analysis and the same reliance on artificial atmospheres in tubes at the hands of Drs. Adams and Dunham have made it clear that the air of Venus is composed largely of carbon dioxide—the gas that froths in beer and bubbles in ginger ale. Carbon dioxide is a necessary for the support of terrestrial life as oxygen. Through some mysterious alchemy, of which we know not even the rudiments, light acting upon the carbon dioxide of our atmosphere produces green plants, and with them starches and sugars. Given green vegetation, it follows that there must be water and the necessary mineral salts to support it, with oxygen as an exhaled by-product. And plants in their turn suggest the great drama of evolution.

We turn to Mars. Not so long ago physicists differed about its temperature. Dr. Coblenz of the Bureau of Standards, settled all doubts with the aid of a marvellously sensitive thermo-couple only one two-hundredths of an inch in diameter. With that instrument he measured the heat received not from the planet as a whole, but from particular regions. For the South Pole in summer 15 to 50 degrees F. were the readings;

for the south temperate zone at the same season 55 to 75 degrees; for the tropics at noon 55 to 85 degrees; for the north temperate zone in winter 30 to 60 degrees.

The planet proved to be warmer than the sceptics contended. Probably the Martian equator is bitterly cold at night, but no colder than New York at its wintry worst.

But what of the Martian atmosphere? Water vapour and oxygen are there—both prerequisites of life. Astronomical doubters once believed that the white Meridian polar caps were not snow but solidified carbon dioxide. Now it is certain that the caps are snow or hoar-frost that melts in the spring and summer and inevitably gives rise to water vapour. Dr. Wright has photographed Mars at Mount Wilson with light of different colours, and discovered yellow, watery clouds floating at a height of 15,000 feet.

On the other hand, Professor Henry Norris Russell, of Princeton, thinks that the red areas of Mars may be otherwise interpreted. He bids us consider the oxygen that the earth carried with it from the sun when the great creative catastrophe occurred. Half of the original amount is gone. We see it everywhere in the form of iron ore (mere rust), iron-bearing red clays and red sandstone. Iron combines avidly with oxygen. Ultimately all our oxygen will be thus chemically removed from the atmosphere. If man is not to die gasping for breath he will have to liberate oxygen some day from the ores, clays and rocks in which it is being imprisoned.

Can It Be?

When we turn to the other planets we face enigmas. Mercury is so near the sun that lead would melt on its surface and water flash into steam. Uranus and Pluto are so far off that the sun must appear like a brilliant star. Days that are no brighter than our late twilight, seasons measured by years, cold that is as intense as that which prevails on Jupiter and Saturn conjure up a vision of terrifying barrenness.

So it seems that only the earth is capable of supporting the higher forms of life—the one freakish world in a freakish solar system. Can it be that Nature creates a thousand million stars and chooses them to radiate their substance away in order to produce a cinder or two with just the right relation to a central sun, with just the right atmosphere and chemical conditions for the support of life? Have we here justification for man's conceit—his deep conviction that he is the very king-pin of the universe?

—"Auckland Star," 15/6/25.

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A STRATOSPHERE BALLOON.

The balloon used in the National Geographic Society Stratosphere Flight, made on July 28, 1934, from South Dakota, U.S.A., was the largest ever built. The gas-bag was constructed in a factory, the windows of which were sealed so that only filtered air was admitted. It required five months to fashion the gigantic bag, and into it went two and a half acres of rubberised cloth, making a total capacity of three million cubic feet. At an elevation of 60,000 feet the fabric ripped and the balloon crashed. Luckily the three occupants jumped clear and landed safely.

THE RELATIONS BETWEEN PLANTS AND INSECTS

It is probably not generally realised how interdependent are flowering-plants and insects. The dependence of a large proportion of the flowering-plants upon the visits of insects for cross-pollination is especially great. Most plants must be cross-pollinated to produce viable seed; even those plants habitually self-pollinated, usually have an occasional generation producing seeds by cross-pollination. Thus all those plants whose pollen is not carried by wind or water must be adapted to insect pollination. In this relationship, plants, in general, are more greatly developed, although special groups of insects, like bees, moths and butterflies, show highly specialised adaptations for feeding on nectar or for gathering pollen.

Pollination is, of course, not the sole process in which plants and insects are intimately connected. In common with all other animals, insects are absolutely dependent upon plants as a source of food, and their success in obtaining this food marks them off to-day as probably the dominant class of animal life. This relation is equally true in favour of the insects. Some other cases are known of mutual advantage. For example, a species of acacia provides shelter and nectar for a certain ant, which swarms on the plant and drives off harcourting ants and other animals. The domatia on the leaf of *Coprosma*, and several New Zealand plants have been shown to harbour an acarid.

Further, there are many instances of insectivorous plants—there is obviously no advantage here to the insects. As a common example in New Zealand, we have the sundew, a frequenter of bogs, on the leaves of which are placed many stalks with sticky glands at the tips. These attract and secure small, flying insects; when a capture is made, the other glands of the leaf lean over to the gland holding the insect and help in its digestion. This process is very similar to that occurring in the stomachs of animals. When the complex compounds of the insect's body are broken down and rendered soluble, they are absorbed into the plant.

But one of the most fascinating and important phases of this subject is that connected with the cross-pollination of plants by insects. It is with this phase that we shall chiefly deal, as being the most important of the varied and interesting modifications existing both in plants and insects.

Firstly, the plants. In point of time, plants must have become specially adapted for insect visits before insects acquired wholly or distinctly floral diets. Nectar is not produced by wind-pollinated plants, and must therefore be a special adaptation to promote insect visits, and not, as has sometimes been suggested, a secretion of substances harmful to the plant.

The general assumption is that insect-pollinated flowers developed from unisexual, wind-pollinated flowers, which, owing to the initial uncertainty of insect-pollination, became perfect (having both male and female elements, stamens and pistils). Later, as pollination became more certain, and attractive devices more nearly perfect, some flowers, by a process of reduction, would again become unisexual.

Since the object of insects in visiting flowers is to obtain food, obvious attractions are supplies of pollen and honey, scent, and attractiveness of colour, shape and grouping. Originally, the pollen and nectar would be exposed. But as there are obvious advantages in protection, etc., nectaries developed and the petals formed an enclosing tube. The mouth parts of certain insects would become

adapted for securing these hidden supplies, and, while the nectar would be less easily discernible by unintelligent insects, this would be counteracted by a greater accumulation of nectar and a consequent increase of long-tongued insects. Such modifications would, therefore, be of advantage, both to the plant and to the special types of insects involved, and a mutual development would take place of the inaccessibility of the nectar (by lengthening of the flower tube or special arrangements of the petals), and the length and adaptability of the mouth-parts of the insects.

Hand in hand with these adaptations go such things as grouping of flowers for greater effect, and the development of special floral forms. The daisy is an excellent example of the former: masses of small flowers, showing great reduction of petals and sepals, are grouped into heads, with the attractive ray florets towards the outside. One insect may pollinate many flowers at a single visit, and specialisation of labour is shown by the presence of ray and disc florets. Even if cross-pollination should fail, self-pollination is assured by the style bending over and touching the anther below it.

Developments of floral form include honey-guides to the nectaries, special parts for the alighting of insects (the wing-petals of peas, etc.), and adaptations tending to restrict pollination to one particular group of insects. So decided may this tendency become, that a species of plant may die out in a neighbourhood where the necessary pollinating agent is absent. Such a case was that of Red Clover when first introduced into New Zealand. No seeds would set until bumblebees were brought here to cross-pollinate the flowers.

Besides the male and female elements being produced on different flowers, cross-pollination may be assured in perfect flowers by the stamens and the pistils ripening at different times. The stamens usually ripen before the pistils.

Another simple but very effective method is seen in the primrose and the oxalis. In the former, two distinct forms of flowers will be seen on different plants. In one type, the stamens are low down in the flower-tube, and the stigma up on a level with the flower entrance. In another, the stamens are higher than the stigma. In each form, the anthers stand at the same level as the stigma in the other, so that an insect searching for nectar on a short-styled flower brushes its head with pollen from the anthers and deposits it on the stigma of a long-styled flower, and vice-versa. In the common yellow oxalis, three forms of flowers are seen, each with two whorls of stamens and one whorl of styles: (a) Long-styled flowers with two lower whorls of stamens; (b) mid-styled with one upper and one lower whorl of stamens; (c) short-styled with two upper whorls of stamens. The result is that in each form there are two whorls of stamens whose anthers stand respectively at the same height as the stigmas of the other two forms. This increases the complexity and the possibilities of cross-pollination.

Insects also have become modified by a parallel process to secure nectar and pollen from flowers. The head and mouth parts, being the organs primarily concerned, were the first to show special adaptations. In the beetle order, we see the first decided tendencies to a floral diet, and the corresponding modifications, which are comparatively rudimentary. Such adaptations are the elongation of the head, a neck-like development behind the eyes, and a lengthening and narrowing of the forepart of the thorax.

Among the flies, the modifications are much more specialised, and their origin difficult to trace; and the majority of flies are flower-frequenter. Some

flowers emit disagreeable odours (to man) specially to entice carrion flies.

In the order including bees, wasps, etc. (Hymenoptera), even higher adaptations are present. Most hymenoptera, except bees, obtain their honey from freely-exposed surfaces, but the bees not only live exclusively on honey and pollen in the adult stage, but also feed their young on these products. Consequently, bees have become specially adapted, both in the mouth-parts and in the legs, and have influenced more than any other group of insects the development of floral mechanisms. The irregularly shaped flowers of the pea, for instance, are especially adapted to attract bees, which are the only insects capable of pushing down the wings and keel of the flower to reach the pollen within. The special devices of bees for carrying pollen are of interest. It is possible, in living species, to trace the development of pollen-collecting arrangements of the legs, from simply an abundance of hairs on the hind-legs to the pollen baskets of the honey and bumble-bees. In these, the pollen is restricted to the outer surface of the tibiae of the hind-legs, which are smooth, except for an outer fringe of hairs. A basket is thus formed in which the pollen may be quickly heaped over the brim, and leaves the tarsae (or feet joints) free. In most bees, too, there is an abundance of hairs on the under surface of the abdomen, which serve to sweep up pollen.

The moths and butterflies are universally adapted for feeding on flowers. A portion of their mouth-parts is specially developed at the expense of the others, which are aborted. The mouth takes the form of a long tube which can be coiled up when at rest. The proboscis of the Swift Moths is especially long and adapted for sucking honey from very long tubes or spurs. In addition, the flowers which they and other night-flying moths frequent, are light-coloured, nocturnal, and send out a strong, sweet perfume at night.

AUTOMOBILE CYLINDER WEAR

DURING the past years since 1930, the general problem of cylinder wear has caused much time and money to be spent in research and experimental work. To ensure a longer cylinder life for 1935 cars, manufacturers of pistons, rings, and liners, as well as lubrication experts, have been striving with each other to produce a high performance car engine that will last the longest and keep its tune.

The question that arises with the subject of cylinder wear is "What causes it?" First there is the general abrasion and corrosion of the parts in contact. Excessive corrosion takes place at abnormally low "wall" temperatures, i.e., when first starting up a cold engine. This is due to the corrosive effects of acids occurring when the temperature is low enough to allow the steam produced by combustion to condense upon the polished surface of the bore. Secondly, when the engine is cold the oil is sluggish, and it is some time before it can provide a protective film. Also during this time the big and little ends have considerable "nip" in them, thus tending to rock the piston with each stroke—offset gudgeons help in this place.

During the first or warming up period, the rings tend to scrape the bore to such an extent as to leave it bare of its film of oil, and thus exposed to gases and acids which are part products of combustion.

Other points, which tend to accelerate cylinder wear are the effects of too far advanced spark, under which condition the piston has to force its way against an

exploding mixture, hence undue and unnecessary rocking of the piston on cylinder walls. An over-rich mixture or running with the choke out has the effect of washing the protective film of oil off the cylinder walls. A bent crankshaft, or a connecting rod out of alignment, has the effect of tilting the pistons, and crankshaft "whip" has the same effect, hence the more main bearings the less the "whip," and so the less the wear from this source. Badly balanced pistons, as for example, those in 1929 Austins, which were too heavy and all the above amount to piston distortion in the cylinder, and an uneven amount of cooling surface through to the water jacket, and so increased cylinder wear because of uneven expansion of the block.

The lubrication of wearing parts is undoubtedly the most important factor in cylinder wear. The viscosity of an oil increases the resistance of that oil to flow through a certain standard size orifice at a fixed temperature. Supposing we have an oil of a certain viscosity when tested in the laboratory. When tested in the actual engine or when compared with another oil testing similarly in the laboratory, it may produce altogether different results under actual working conditions. It is, therefore, most desirable that the oil be such that it will not thicken unduly at low temperatures such as obtain at cold starting. An oil, which remains fairly thin and fluid will get into circulation more quickly, hence the period during which the bore has to operate in a more or less dry condition, is considerably lessened.

Nevertheless, when all these points are strictly adhered to, wear does occur, and, when the bore is worn to such an extent as to allow "blow past," with the resultant loss of compression, something has to be done to repair or replace the bore and fit new pistons. There are two distinct methods, viz., grinding, reaming and honing, and fitting a new cylinder liner. In dealing with liners, there are two distinct types, the wet and the dry. The wet liner has the outside of it acting as a water jacket and joints top and bottom are provided by rubber rings. In this type the whole bore can be replaced, which incidentally gives access to the water jackets for cleaning. One point in favour of this is that the original size of the bore can be adhered to, which means new engine performance. The liners are made of specially hardened, centrifugally cast steel. In the dry type the bore is enlarged to approximately 1-4in oversize, and the liner is about 1-8in thick. Care must be taken when re-boring to make the bores at right angles to the crankshaft centre line. In both cases the liners are held in place by the head, when bolted in position.

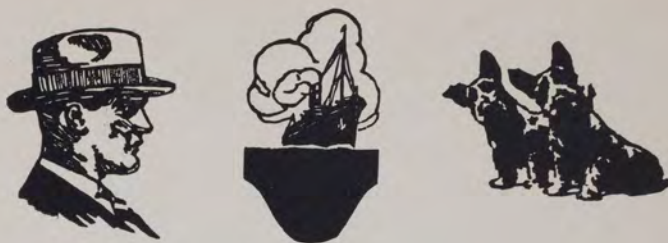
The advantage of fitting such a liner is that the surface being of the special alloy steel, will be tremendously resistant to wear, and will take such a smooth mirror-like finish that it reduces wear on the pistons.

Boring or honing is very popular at present, being the cheaper repair. One point brought out in its favour, is that the thinner wall allows quicker cooling, and so a cooler engine, but where one only of the cylinders is treated, it throws the engine out of balance.

In conclusion it must be pointed out that many manufacturers are recognising the merits of the new hard liners, and are designing their engine to have them from the very start.

—Keith Macdonald, Motor Engineering Class.

Of the areas under each of the principle crops grown in New Zealand, grass accounts for 563,756 acres, potatoes 478,652 acres, wheat 294,992 acres, and oats 394,729 acres.



PRECISION - - MINUTE MEASUREMENTS

It is a dismal, but nevertheless true, thought that all that stands between the perfect operation and destruction of a motor car is a layer of metal no thicker than the sheet of paper on which this article is printed. This is about three-thousandths of an inch thick.

Consider a car worn to such an extent that every single surface has 0.002 in worn off it. The pistons would have twelve "thou." play, for the piston diameter would be 0.006 in under size, and cylinders would be that amount larger than standard. The rings would have twelve "thou." of slop, and the same degree of freedom would exist in all the bearings. Long before the car had reached this state of wear it would have to be scrapped if it did not break up of its own accord beforehand; and break it almost certainly would, for, if the transmission ball bearings, splined shafts and gear teeth had all this slack in them they would run sufficiently out of true to jam.

If one turns a new engine over by hand, it is quickly realized that every bearing is extremely tight, so tight that it is often impossible for a man of medium strength to swing the engine with the handle. It is readily appreciated that if each bearing and moving part in the car were made only half "thou." tighter it would no longer be possible for the parts to work at all, for that reason car parts have to be manufactured to very precise limits. The days when the thousandth part of an inch was spoken of with awe have passed and even on the cheapest cars certain parts, such as gudgeon pins and ball and roller bearings, are manufactured to limits of plus or minus one or two ten-thousandth parts of an inch.

It follows that if the part has to be made correct within a fraction of a "thou." the gauges used to check it in the course of manufacture must be correct to within two or three hundred-thousandths parts of an inch, and the instruments which check these gauges must be right to within a few millionths of an inch. If you slit this sheet of paper into three thousand thin sheets each would be one-millionth of an inch thick.

This matter of being able to measure to very fine limits is of importance in every factory, but to those firms which manufacture their products simultaneously in several parts of the world, and require interchangeability between the products of their different factories, extreme precision in gauge manufacture is the keystone of success. Without it the whole organization would fall to pieces.

Instruments which measure with extreme accuracy may be divided into two classes: those which give a direct reading in inches and fractions, and comparators which tell the operator how much error exists in a part as compared with a set standard.

Standard Measurement.

The standard to which all master gauges are made is the Johansson gauge block. These are small rectangular blocks of tool steel which have been ground, lapped, heat-treated and seasoned. They are the most accurate articles made and sold commercially. A complete master laboratory set consists of eighty-one blocks, each guaranteed correct to plus or minus 0.000,002 in at 63 deg. F. The smallest of them is 0.1001 in wide, and they step up in one-tenth of a thousandth of an inch stages to four inches. By building them up on one another various dimensions are obtained.

All the instruments used to measure precisely work on a system of levers, which scales up the movement of the gauging point to such an extent that the minutest deflection is visible. The simplest instrument

of this kind, although in these days it is scarcely regarded as a precision device, is the familiar works micrometer. In this, one of the gauging points has a screw cut on it. This has forty threads to an inch, and therefore each revolution of the screw moves the gauge point 1-40 in. On the end of the screw is a thimble, the edge of which is divided into twenty-five equal parts. Turning the thimble through one division moves the gauge point one thousandth part of an inch.

An elaboration of this screw principle is to be found on the Newall measuring machine. In appearance this instrument is not unlike a lathe, the measuring screw being contained in the head-stock. On the end of this screw is a large diameter wheel graduated so that its rotation through one graduation moves the gauge point 0.0001 in. A vernier alongside the wheel enables readings down to one hundred-thousandth part of an inch to be obtained. The vernier is not fixed. It moves slightly, its movement being controlled by the compensator, which automatically corrects any small errors in the pitch of the measuring screw. On top of the tailstock, in which is mounted the other gauging point, is a spirit level. When the gauging point is just in contact with the piece to be measured the level is horizontal. This feature prevents inaccuracies arising due to a careless operator applying end-pressure through the medium of the screwed gauging point.

In the Prestwich fluid gauge, one gauging point is fixed in the centre of a large diaphragm, above which is a small-bore tube. The space above the diaphragm and the lower half of the small-bore tube is filled with liquid, and any small movement of the diaphragm causes the level in the tube to fluctuate widely. In the type of fluid gauge used in most engineering works the tube is so proportioned in relation to the diaphragm that a movement of one "thou." of the gauging point causes the liquid level in the tube to alter half an inch. In this instrument there are three fine pointers attached to the side of the tube. One of these indicates the correct size as called for on the drawing, and the other pair the permissible errors of workmanship.

The Ultra-Optimeter.

The latest and most sensitive of these precision measuring machines is the Zeiss Ultra-Optimeter, and, as might be expected from its origin, it works on optical principles. In the Ultra-Optimeter the instrument is protected from the warmth of the operator's body by sheets of heat-resisting glass. In common with all the precise measuring instruments at this factory, it is housed in a specially equipped laboratory fitted with thermostatic temperature control keeping its temperature at a constant 63 deg. F.

This machine works on a system of levers, but, in this case, the levers are beams of light—a form of mechanism that does not wear or distort with age. The instrument is graduated to one hundred-thousandth part of an inch, but the graduations are sufficiently wide apart to enable millionths of an inch to be readily estimated.

It is well known that the angle of reflection of a beam of light from a mirror is the same as the angle at which the beam of light is projected on to the mirror. When a small boy catches a ray of sunlight on a piece of looking-glass and reflects it on to the shaded side of a building he is taking advantage of this principle, and the minutest movement of the mirror makes a very large difference to the position of the spot of reflected sunlight on the shaded wall.

Under the microscope eye-piece of the Ultra-Optimeter there is an index line, and in the base of the

machine there is a tilting mirror which is connected to a sapphire gauging point. Above the tilting mirror is a fixed mirror. Under the light of a powerful lamp there is a transparent plate which is graduated. The image of the index line is thrown on the tilting mirror to the tilting mirror, and finally on to the graduated and from there up on to the stationary mirror, back plate. It will be seen that the four beams of light that are the reflections of the image of the index line are, in effect, long levers. The operator sees, in the microscope eye-piece, the index line and that part of the graduated plate across which its reflection falls. The graduations indicate the size of the part being measured.

The measurement of linear dimensions does not, however, present the problems that have to be solved when it is desired to measure the form of shaped objects. The cam-shaft is, perhaps, the most intricately shaped piece in a car, calling for extreme accuracy in every respect, and a machine is in existence which will gauge the lift of each cam to the nearest ten-thousandth part of an inch at any point; moreover, it will check the spacing of the cams relative to each other and give the points of valve opening and closure to the nearest minute. (There are 60 minutes in one degree, or 21,600 minutes in a circle.)

Instrument of Many Uses.

To the base of the toolmaker's microscope is fitted a bed not unlike the bed of an instrument maker's precision lathe. The lead screw and traversing screws are extremely accurately cut and provided with thimbles graduated to show each 0.0001 in. of movement of the saddle carrying the screw thread to be measured. In the base of the machine is a powerful electric lamp which shines a light on to the screw head and throws its shadow, enlarged some thirty times, on to a screen. In the microscope head is placed a transparent slide on which is drawn the correct form of screw thread. As the shadow of the thread to be measured is thrown on the screen, superimposed on the picture of the correct thread, any inaccuracies are at once visible, and all the elements of the thread, such as the radii at the root and top of the tooth, and the slope of the sides of the tooth, can be checked.

To check errors in pitch the operator has only to advance the lead screw through one pitch, and he can immediately see if there is any error, for, if one exists, the shadow of the thread will not fall directly under the drawing on the screen. Movement of the lead screw until the picture and shadow coincide gives the magnitude of the error. To obtain the diameter of the screw it must be traversed until the threads on its remote side fall under the picture. The distance that the traversing screw has been moved is a measure of the diameter of the screw that is being tested for size.

On January 1, 1933, an important international agreement was reached between Great Britain, U.S.A., Germany and France. Prior to this agreement Great Britain measured gauges at 62 deg. F., Germany at 20 deg. C., France at freezing point, and America at 68 deg. F., which is the Fahrenheit equivalent of the German standard. Now all the nations concerned have accepted the 68 deg. F. standard.

While man worked in thousands of small temperature differences were of no account, but once the millionth came into the realm of practical politics, it became important to standardise the temperature at which all gauges were measured, for a variation of only 1 deg. F. alters the size of a one-inch gauge block six millionths of an inch.

—“Auckland Star,” 21/5/35.

A BATTERY RADIO

TO-DAY there exists a real need for a small, economical battery radio of a type not extensively catered for by the various manufacturers. The only type coming near the needed type is the smaller auto type, which has certain characteristics which render it not quite ideal. The need is that of the beach shack owner, camper and yachtsman, who wants news, some entertainment, and very often weather reports and time signals.

The requirements are ample range with a make-shift aerial system, cheap construction, yet robust and reliable, reasonable high tension drain at comparatively low voltages, with filament current round about an ampere, reasonable quality without frills, such as variable tone control, delayed action, automatic volume control, though a simple A.V.C. is desirable if it does not add too many complications.

With these characteristics in view, a superhet, embodying the latest valves was chosen. For distance reception to be reliable, a four valve design was undertaken, using a pentagrid frequency changer, a single J.F. pentode as the intermediate frequency amplifier, a diode pentode as second detector for quality, and low frequency stage, and an output pentode of moderate size, feeding a good quality, permanent magnet dynamic speaker. To avoid complications the volume control was taken off the audio side. Six volt valves were chosen, owing to the greater variety of types available to suit our purpose, their admitted robustness, their freedom from background noise, and the satisfactory performance given when run at lower voltages than the makers specify.

The Materials Required.

The valves decided on were a 6AT pentagrid, 78 LP, 6BT diode, and a 41 output pentode.

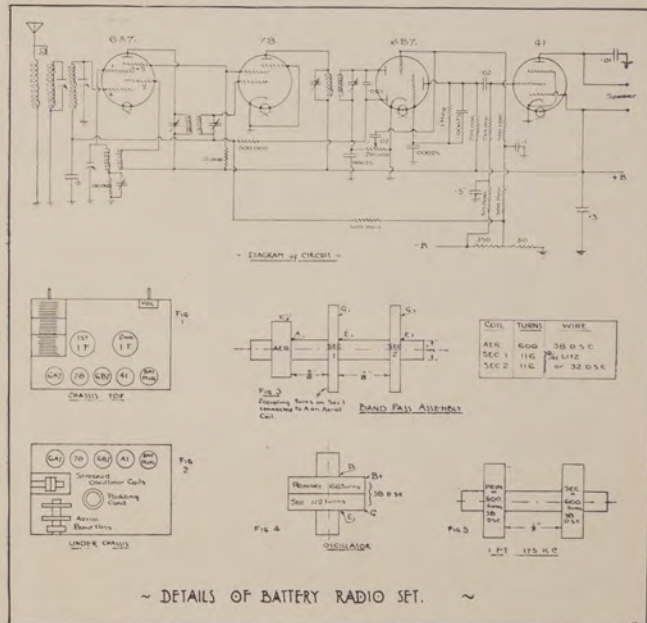
Automatic grid bias was used to save the trouble of extra batteries, and a single high tension lead was used instead of the usual number of leads.

The materials required were:—

- 1 Chassis.
- 2 6 pin baseboard sockets.
- 2 7 pin (small) baseboard sockets.
- 1 3 gang .0027 condenser.
- 1 Dial and knob to fit above.
- 4 .5MF tubular condensers.
- 1 .1MF tubular condenser.
- 2 .08MF tubular condensers.
- 2 .00025 tubular condensers.
- 1 .001 tubular condenser.
- 1 .01 tubular condenser.
- 1 Quarter meg potentiometer and knob.
- 1 10,000 ohm 1 watt resistor.
- 4 ½ meg 1 watt resistors.
- 2 Quarter meg 1 watt resistors.
- 1 50,000 ohm 1 watt resistor.
- 1 100,000 ohm 1 watt resistor.
- 2 .0002MF padding condensers.

Wire, nuts, bolts and springs washers.

To simplify construction it was decided to use the drop across resistors in the —B to earth lead as the automatic bias, and earth the four cathodes. These resistors are best made of wire to carry the full B



ing this value into the required bias voltage, multiplied by 1000. One must be careful to remember that the bias for optimum working conditions remains constant, and are calculated from the full data of the valves by taking the total millamp drain and dividing by the types of valve used, irrespective of the plate voltage applied. So one must select the plate voltage to be used and look up the various total plate and screen currents at that voltage and calculate accordingly, viz, the 78 at 100 volts takes 7 m.a.; the 41, 10.6 m.a.; the 6B7, 7 m.a.; the 6A7, 7 m.a.; a total of 31.6 m.a. To get the required -3 volts the resistance will be 3 multiplied by 1000 and divided by .0316, equals 95 ohms. To get the -7 volts for the 41 valve, the resistance will be 7 multiplied by 1000 and divided by .0316, equals 222 ohms, so a resistance of 220-25, equals 125 ohms, will be needed.

Details of the Chassis.

We are left now with the chassis, band pass broadcast band, set of coils, oscillator coil, and padding condenser, intermediate frequency transformers, "push back" connecting wire, resin core solder, an old 4 pin valve base, and a permanent magnet dynamic speaker fitted with suitable output transformer. That suitable for the standard type of American output pentode, the 2A5 or the 42, is satisfactory.

The chassis can be of steel or aluminium-top, 12in x 7in, bent with trough sides 2in deep. Tin chassis can be bought for a few shillings from almost any radio dealer, and one can adapt the design chosen to practically any four valve and rectifier chassis. A neat arrangement is to have the four valve sockets across the rear, the I.F. transformers just in front of the valves, the band pass coils, oscillator coil, underneath the chassis. If a chassis is bought with five valve socket holes, use the fifth one with the 4 pin socket to make a battery lead plug connection. Thus, the layout will be as shown in the diagram.

Now to make the coils. The band pass assembly is wound on $\frac{1}{2}$ in dowelling, well seasoned and baked and doped with paraffin wax. The coils may be jumble wound, but a duolateral winding is better, and this may be procured very cheaply ready made by any of the dealers possessing a winding machine. The layout is self explanatory; remember to take a couple of coupling turns from aerial coil to secondary I.

The oscillator coil is wound on the same size dowelling, and is better duolateral, but jumble winding is very satisfactory. The primary and secondary coils are separated merely by a piece of impregnated paper, and when finished the coil is shielded by an aluminium can, allowing 2-sin clearance on all sides. The shield may be left open at the end for the connecting wires to pass through. (See Fig. 3.)

The I.F. transformers are best wound on one of the special bases which can be purchased at most dealers, and these bases include the tuning condensers and screening cans.

The coils are again wound on $\frac{1}{2}$ in dowelling and are similar in all respects, both coils are duolateral or jumble wound of 600 turns of 38 D.S.C. separated by $\frac{1}{2}$ in, and each coil is tuned by one of the condensers in the base. Both coils are fitted with shielding cans, and the grid lead is taken from the top of the first I.F. can. (See Fig. 4.)

A valve can should be procured for the 78 and three grid clips for the grids of the 6A7, 6B7 and the 78. Now proceed to wire up, following the conventional circuit, Fig. 5, taking care to make good soldered joints in each case. When the wiring has been checked and found correct, connect the filament leads to the filament lugs of the 4 pin socket, the negative

B to the grid lug, and the positive B to the plate lug. Solder 4 wires to the old 4 pin valve base legs, heavy flex to the filament legs, a red flex to the plate leg and a black flex to the grid leg, the heavy flex being A battery, irrespective of positive and negative, the red flex to maximum B positive and the black flex to -B.

Now fit the valves and speaker. After warming up for about 30 seconds, remove the grid cap from the 6B7 and a noise should be heard in the speaker. Touch aerial lead to frame and a click should be heard. If access can be got to an oscillator calibrated for 175 kilocycles, it should be used to adjust the I.F. tuning condensers to correct setting, if not, set condensers about midway, tune in a broadcast station of as high a frequency as possible, i.e., main condenser vanes all out, adjust trimmers on all condensers of gang to maximum sensitivity. Now turn condenser vanes all in to tune in a broadcast station near this position (2YA), and adjust padding condenser to maximum volume. Now, if care is taken, the I.F.S. may be carefully adjusted and satisfactory results will be got. Without an oscillator or signal generator, the best cannot be got, and it would be worth while to get someone to go over the adjustments. The dealer from whom you obtained your materials would most likely be only too pleased to do this final adjustment for you.

Good results can be obtained on 90 volts B battery, and by judiciously raising the bias resistors in value the millamp drain can be brought down to 12 to 15 m.a. without any distortion creeping in. Such a set will give months of satisfactory day and evening service on a set of two standard 45 volt B batteries; as a matter of fact, the writer's set gave 7 weeks day and evening service at Christmas, and three months later the standard, cheap 45 volt B's, had enough kick left to run it for the whole May holidays. A 6 volt car battery will give a month's filament supply on a charge. Terminals are not fitted, but good rubber covered leads are connected to aerial coil and chassis respectively, and are more convenient than terminals. The old valve base may be filled with sealing wax, and makes a neat plug which, on being removed, cuts off all supply from the valves.

When correctly adjusted the sensitivity is good, most New Zealand main stations in daytime, and plenty of American and Australians at night. Selectivity is very good just out of Auckland, as KFI can be got with YVA working. The A.C. version is similarly constructed, with altered bias resistors, a power transformer, filter choke, condensers and rectifier.

1124 WRECKS IN NEW ZEALAND—A CAPTAIN'S HOBBY.

Collecting records of wrecks, strandings, fast passages and other shipping information is the interesting hobby of Captain A. G. Baggett, of the motor vessel Breeze, trading out of Wellington. When that busy coaster berthed recently Captain Baggett showed the large notebook in which he has stored these records, neatly arranged in tabulated form, to a "Post" reporter.

Captain Baggett's book contained, among other information, records of as many as 1124 wrecks on the coasts of New Zealand and the outlying islands. The oldest of these referred to the sailing ship Endeavour, piled up in Dusky Sound on September 17, 1795; she was not Cook's Endeavour, stated Captain Baggett, but probably a whaler. The most recent entry marked the passing of the historic Auckland scow Moa, lost on the bar of the Big Wanganni River, about 29 miles south-west of Hokitika, on March 31 of this year.

Considering the number of wrecks Captain Baggett has listed, and the relatively small number of years during which Europeans have navigated the waters of New Zealand, the toll taken by the sea is amazing.

THE "QUEEN MARY"

"May shipwreck and collision, fog and fire
Rook, shoal and other evils of the sea
Be kept from you; and may the heart's desire
Of those who speed your launching come to
be."

THUS, in the concluding verse of a poem written by John Massfield to mark the launching of the "Queen Mary," are expressed the wishes of all who have watched the progress of the ship, which, it is hoped will regain the Atlantic record for Britain.

The Cunarder, known to everyone before the launching as the "534," has already had an eventful record. Work started on her about the end of 1930 and good progress was made for a year. Then came adversity, and for two years and four months the shell was in the stocks without a plate or rivet being added. In the meantime the other shipbuilding countries had not been idle, and first Germany, with the "Bremer" and "Europa," and, more recently, France with the "Normandie," have established new records in crossing the Atlantic.

In April, 1934, work was resumed on the "534," and, after another six months, on September 26, she was successfully launched, the naming ceremony being performed by the Queen. From that day the vessel has been known as the "Queen Mary."

The ship is being built and engined by the famous shipbuilding firm of John Brown and Co., Ltd., of Clydebank, near Glasgow, and, although they have built many famous ships, the preliminary arrangements for this huge vessel were on a scale never approached before.

Owing to her immense weight the ground on which the ship had to be built was specially strengthened, piled and cross-piled. Over these cross-piles were placed layers of steel plates and many tons of concrete, as it was essential that the ground should not yield an inch. During construction, in addition to the usual gangways, large electric lifts were fitted to the sides of the vessel to carry the workmen to the towering upper decks, over 100ft above ground level.

A good deal of work had also to be done in the River Clyde to facilitate the launching and docking of the liner. This included not only the excavation of the bank where the River Cart joins the Clyde, but also months of dredging in the Clyde in front of the ship's berth.

We all know that no hitch occurred during the launching of the vessel, but this ceremony had already been carried out mathematically several times. A scale model was used under exactly the same circumstances, and with the same assistances and possible impediments as the vessel itself.

Some Features of the "Queen Mary."

The largest liner ever built in Britain (she is 9ft shorter than the "Normandie"), is 1015 feet long and about 135 feet from the keel to the top of her funnels. To take a local comparison, if placed in Queen Street the ship would reach from Shortland Street to Victoria Street and her height would exceed the spire of the Power Board Building by 5 feet.

The hull structure comprises twelve decks, from the spacious sun deck down to the lower decks, which are discontinued in the way of the extensive machinery spaces. An unusual feature in the construction of the hull has been the use of special high elastic limit steel in the super-structure.

Official records state that into the ship are driven 10,000,000 rivets, which collectively weight 4000 tons, and at least twice that number of rivet holes would be required in the plates. Yet each rivet has been carefully and skilfully formed—it is generally admitted that Clydeside riveters cannot be beaten at their job.

Oil fuel will be used to raise steam in the twenty-four main boilers, which supply the steam for the turbines, and over 2600ft of main steam piping will be necessary.

For electric power seven turbo-generator sets, developing 10,000 kilowatts, or sufficient electric energy to supply lighting and public services for a town of 150,000 people, will be used.

The propelling machinery will consist of a quadruple screw arrangement of Parson's single reduction geared turbines. That is, there will be four sets of turbines and four propellers. Altogether there will be 257,000 turbine blades, varying in length from two to sixteen inches, and each one must be carefully tested and fitted by hand. There are four manganese bronze propellers, each of which, after machining, weighs 35 tons, is 20ft in diameter, and is worth £7000. These are cast in one piece, have four blades, with special pitch, and are required to pass a test for balance by being mounted on a special apparatus where they must be able to revolve by hand.

The rudder weighs 150 tons, and the builders believe it to be the best ever designed. Some huge steel castings were required for the stern post shaft brackets, rudder stock and frame, and these were made by the Darlington Forge Company, the collective weight of these parts being over 600 tons. One of the castings, the rudder stock, which weighs 90 tons, had later to have a key-way cut in it to a limit of 1-10,000 of an inch. All the machining of the engine parts is necessarily to a very high degree of accuracy. One example will be sufficient to illustrate this. There are gear wheels 14ft diameter for the turbines, which must have the teeth cut to 1-1000 of an inch of accuracy. When the teeth are being hobbled, the wheel revolves so slowly in the machine as to appear almost motionless. It takes two months of ceaseless running in the machine before the teeth are perfectly formed, and there are five of these to do, four and a spare.

The two great anchors, of special design, each weighing 16 tons, are recessed into the bows to obviate wind resistance, while the cable links are made from special steel, 4in in diameter and have had to undergo very severe tensile tests. A three link piece was successfully subjected to a stress of nearly 700 tons, which is more than double the official requirements.

It is not to be supposed that a ship like the "Queen Mary" will be built without those responsible knowing exactly what she will do under every circumstance. Very thorough researches were carried out in an experimental tank at Clydebank with a scale model of the ship, where it was possible to reproduce, in miniature, all the Atlantic weather conditions. The tank is several hundred feet long, and in it was tested a scale model 17ft long, self-propelled. Over 7000 experiments were carried out in this tank before the form of the ship was finally determined.

For example, the three funnels are 30ft in diameter, each one large enough to allow three "Royal Scot" engines to stand abreast inside. Naturally, they wished to know how these would behave with the wind from all quarters, so scale models were built and subjected to all sorts of tests with smoke-producing apparatus.

Thirty model sets of funnels had to be made before the design was finally approved, a design which has proved conclusively that under no circumstances will the smoke be drawn down in contact with the decks.



PREFECTS AND SUB-PREFECTS.

Back Row: C. Thorpe, B. Skattow, A. Tweedie, E. Amos, L. Rowe, N. Noall,
I. Jensen, D. Tainsh.
Middle Row: N. Melbourne, N. Whaley, C. LeLong, T. Woodward, C. Cantlay,
A. Thompson, M. Gow, H. Emsay, C. Jones.
Front Row: V. McLean, F. Woodward, R. Stevenson, R. Tilby, Mr. Park,
M. Lund, D. Mansfield, S. Wallace, E. Moss.



THE COLLEGE ORCHESTRA.

Third Row: Loren Skinner, R. Thompson, K. Moulder, A. Smithers, E.
Short, J. McKnight, R. Pople, H. Dalny, Marjorie Wood.
Second Row: Mr. W. E. Burley, J. Ainsworth, W. Broadley, Florence Wood-
ward, Velma Lindsay, R. Marson, R. Hannam, Mr. H. W. James.
Front Row: Miss Davis, Batty Sinclair, Rona Smith, Olive Densby, Mr. A.
B. Thompson, Floisie Daly, Norma Dennis, Aldwyth Dunn, Miss Adams.

When completed, accommodation will be provided for first, tourist and third class passengers. An area of nearly two acres will be available for deck sports, while the promenade deck is 750ft long. There will be twenty-one electric lifts, some of the express type, and the ship's staff will number over 1000.

The latest apparatus is provided for navigation at sea and while docking. The ship will be steered by a powerful electric hydraulic four-ram steering gear. A gyroscopic compass will be installed, and other features of the bridge equipment include a telephone and telegraph system, giving instant communication to any part of the ship.

It is debatable whether such large liners will justify the enormous cost of building and upkeep. In this case, however, the supremacy of British shipbuilding has been seriously challenged by the splendid record of the "Normandie," and the whole world will watch with interest when the "Queen Mary" at last sets off on her maiden voyage.

THE ANCIENT EGYPTIANS HAD STONE - - NOT STEEL

OURS is a lazy civilisation. The ancient Egyptians 5000 years ago could do practically everything with materials which we can do today; we have simply applied mechanical power to the operations. Modern engineers and architects marvel at the Pyramid of Cheops, frankly admitting their inability to duplicate it even with all our modern aids to material handling, stone cutting, and engineering. Built by Khufu in the years following 2800 B.C., as his own burial place, it is not only the most considerable of all architectural works in bulk, but one of the most perfect in execution.

We, as a people, magnify our accomplishments, belittle the efforts of earlier peoples, and somewhat vaingloriously assume that, because we have been unable to accomplish some certain thing, it cannot be accomplished. We assume that the Egyptians could have had tools which, at best, were only partially as good as ours. Yet we are unable to explain their works even judging by our own modern standards. For a considerable time we have been engaged in an effort to perpetuate our civilisation by carving battle scenes in relief, and by incising 500 word histories on the face of monuments. The Egyptians did as well, but without machinery, as we know the term, to aid them.

The Egyptian stone worker worked materials such as quartz, rock crystals, garnet, beryl, turquoise—even emery, which we find great difficulty in cutting to-day. These evidences of ancient Egyptian stone-cutting can point to one possibility—that of a material harder than ordinary copper for cutting. We have been offered theories that hardened copper, even iron or steel tools were used. Why not advance the logical conjecture that a material harder than steel was available? Simply because we have been unable to find a material entirely satisfactory for this class of work, is no indication that they might not have done so.

When we examine specimens of the Egyptian stone-cutter's works we can only marvel at his skill, and wonder what materials he used to incise the lines on the hard stone used by him. Perhaps, some New Zealander, wandering amidst the vestiges of ancient Egyptian architecture may light upon the clue to this riddle.

ART AND INDUSTRY

"Advertising moulds public opinion and thus creates the economics of to-morrow." These words appeared in a recent number of a Commercial Art magazine. At the beginning of the century they would probably have been ignored by the majority of people who chanced to read them, or passed over with a smile of mild contempt. To-day, however, the leading men in the business world realise the truth of this sentence and advertising is recognised as an art, for the first time in the world's history.

The first picture by a well-known artist to be used for advertising purposes was a painting entitled "Bubbles," by Sir John Milais, about the middle of the last century. This was purchased by the Pears Soap Company for the sum of £1000. It is said that the artist had no idea that the picture was to be used for the purpose of selling soap, and was very indignant that a work of art should be so degraded as to appear before the public as an advertisement.

To-day the commercial artist is considered in a very different light, and a host of famous painters contribute posters, which occupy positions of honour in public buildings, and are appreciated by hundreds of people who would not dream of visiting an art gallery. The poster is simple and direct, and the meaning conveyed in line or colour, flashes a message which is grasped immediately, whereas a painting must be studied closely, and with a knowledge of drawing and colour, to be really understood.

Like all other things Commercial Art is progressing with the demand, and when we consider its development during this century, and its appeal to all classes of people, we realise that it has definitely come to stay, and that more and more it will become absorbed into everyday things—a necessity in human life.

AGRICULTURE CLUB—1935

President, V. Pooch; secretaries, E. Moss (girls), N. Sergeant (boys); committee: Girls, N. Brown, K. Fatchen, J. Hill; Boys, W. Binsted, I. Jensen, A. Gribble.

The Agriculture Club commenced this year with a membership of about forty. Meetings have been held every second Wednesday in Room K, and many interesting lectureries have been delivered. Several shows have been held during the year, the most important being the large annual show held in November. This show completely filled the Assembly Hall with exhibits produced by the pupils of the College. The 1934 show had nearly one thousand entries, this being a record for the show.

☆☆☆

NEVER SEE THEIR TEACHER.

Queensland claims to possess the biggest children's school in the world. The number of scholars has just passed the 5000 mark, but none of them has ever seen his teachers; it is called the State Primary Correspondence School. Its pupils, who live in such widely separated parts as Northern Territory, New Guinea, Papua, Sourabaya, and the Solomon Islands, receive their education by post. The school was founded in Brisbane in 1923 in order to give some sort of education to children who lived near the town but too far from the railway or main road to attend local schools. During term time a large staff of teachers in Brisbane set the lessons on papers for the various grades for the whole term, and the children receive them by post. Then the papers are examined and sent back for correction, and the children informed of the result. The school has a wonderful number of scholastic successes to its credit.

AROUND THE FORMS

COMMERCIAL DIPLOMA - GIRLS

The tantalising subject of Economics that deals with wealth—we have studied it hard, with no perceptible increase in our wealth. 150 years ago it was said that Economics was a dismal science—we must be living in the past. Occasional gleams of light filter through our darkened minds with the aid of bulging folios of newspaper cuttings (for which we search industriously when they are at least a week old) all about gold, unemployment.



STUDENTS' VISION OF A TRADE CYCLE

During the term our minds strangely resemble the trade cycle. "It revolves apparently in an established cycle. First we find it in a state of quiescence—next improvement—growing confidence—prosperity—excitement—over-trading—convulsion—pressure—stagnation—distress—ending again in quiescence," and there we remain until the beginning of another term.

We show our appreciation of the bi-metallic standard by daily referring to Silverman. The most satisfactory definition of money is that it is the "Root of all evil."

Gold also suggests to us a cycle which resembles that of trade—gold—currency—pudding—indigestion—death—heaven.

Have you ever met the old woman with her shopping basket? Purely Imaginary, of course, but a real weight lifter.



SHOPPING BASKET.

Anyone listening to us would think that we deluded in scientific expressions—net marginal productivity—exchange equalisation—standardisation—stabilisation—specialisation—mortisation—but it is entirely the fault of the examiners, who may reveal in obscure terms, and this necessitates our mastering them.

During the year our enlightenment on this subject has been aided by wonderful diagrams. A few strokes of the "mighty" chalk and the whole pages of a text-book are illustrated. The theory of rent was made clear by the drawings of farms (truly artistic). On the one side rocks and barren land, on the other a stream, which watered a green plain. We could even SEE the fertility of the soil. Then again an island fringed with palm trees and surrounded by the deep blue ocean. All there for us to view (with no extra cost).

One of the most difficult passages to grasp was the national income. We could get no further than the INK part—and could not see where the COME came in as far as income was concerned.

A favourite subject was the IRON LAW. Here we could let our imagination run riot—pirates wresting gold from merchants, forcing them to walk the plank, and other more gruesome pictures, as for example:—



We have all learnt about nominal wages and are hoping to obtain real wages sometime in the future, as reward for our labours. Real wages present themselves to us as something like this:—



ACCOUNTANCY DIPLOMA - BOYS

Once again the Accountancy Diploma Form submits for your personal the modest record of its comings and goings—coming at any time between nine and ten a.m. and going mad with overwork. No doubt, to the uninitiated, five subjects which are all we have, form but a moderate quota of work, but should the said uninitiated be forced to study the following subjects, they also might be in the sorry state of mind described above:—

(1) Book-keeping—

Of course, everybody knows that, as a rule, accountants and "would-be" accountants are expert book-keepers, but certain people, whose opinion must be respected, seem to think that we supply the exception which proves the rule. For example, what Diploma student ever thought of worrying over such a triviality as a few hundred pounds placed on the debit instead of the credit side of an account? Also, after an hour's fruitless effort in endeavouring to make a credit balance become the correct debit balance, we begin to believe that the debit balance is really only a variation of the gymnastic long-arm balance. As for reconciliation statements—we are afraid that Mr. Jones will never be reconciled to the belief that we can do them.



(2) Economics—

Economics is undoubtedly a most interesting subject, and one which enables us to appreciate the wisdom and point out the mistakes of clever men and politicians.

During our studies we gleaned the information that Professor Jevons attributed the trade cycle to the influence of sun-spots—the last trade cycle that any of us noticed was a butcher's cycle, the contents of whose basket was undoubtedly influenced by many fly-spots. Our syllabus also includes the law of supply and demand, and the principle of diminishing utility. An excellent combination of these is found in W—e demanding the "community" rest to be supplied by T—y—r, only to find that the utility of the said instrument has diminished since it was "accidentally" broken by L—d.

(3) Company Law—

It no doubt takes many of you a long time to float a boat, but with the help of that masterpiece of Jurisdiction, the Companies Act, we soon hope to be able to float a company—perhaps a trust company or two. Our readers have no idea as to what a pleasant subject company law is—at times. For example, one derives great amusement at seeing the large number of reverend gentlemen who hold shares in brewery companies, or from noticing how delightfully obliging company promoters can be in putting impressive but trivial information where it can easily be seen in the prospectus, and putting the really important details required by the Act in a secluded and inconspicuous place. Of course, we realise that they do it out of sheer goodness of heart in order

to provide pleasant reading matter and not bore prospective shareholders with the uninteresting details with which the law insists that they should appon "their singularly charming prospects."



(4) Mercantile Law—

Although law in general is gloomy enough, mercantile law has its bright moments.

One of the most important enactments which we have to study is a section of the Statute of Frauds, which must not be confused with some of the statutes of frauds which one sees in wax works exhibitions. We have learnt that contracts in restraint of marriage are illegal—an excellent rule, for it would be depressing to see love's labour lost.

Do our readers know that, although New Zealand lawyers are quite free of such disability, barristers in England cannot sue for their fees? It is not strange therefore that lawyers are so numerous in New Zealand, or that their fees are so low (?).

(5) Bankruptcy Law—

Mr. Drake considers that in a few months we will all be experts on bankruptcy law (?). However, our personal opinion is that if the cost of living remains at its present high level, we will all be bankrupts and in need of the law which we are at present, metaphorically speaking, doing our best to digest. Some peculiar terms are to be found in bankruptcy, and a few of them have led to the imagination of our form artist running riot. For example, when he first heard of liquidated damages, he could not help thinking of a damaged barrel with its contents running out. Again, due no doubt to the number of law subjects which he has been studying, the mere mention of a floating charge made him think of a court in session upon a boat.





THE LOG OF THE WINDJAMMER

COMMERCIAL 3A - Flagship of the S.M.T.C. Fleet

On February 7th, 1935, our gallant ship weighed her anchor, loosened her hawsers and set sail for the Land of Commerce. Aboard her were Rear-Admiral M. G. Anderson and a merry crew of thirty. Before leaving the harbour, the ship hove to for a short period to enable the crew to partake in the Swimming Sports of the Fleet, and the crew of our vessel here conducted themselves with merit, for they won the relay. When we had put out to sea a fierce storm swept down upon us, and great waves of book-keeping, typewriting, shorthand and history, threatened to swamp our sturdy craft, but under the guiding hands of our admiral and our captains, she breast and dashed through the mighty waves. Yet, alas, when the storm had passed and we had reached calmer waters, the crew had sadly diminished, for some of our gallant complement had been swept away meanwhile.

A small island appeared on the horizon before us, and there we found the people busily engaged in organizing a Crippled Children's Fund, and so when the other ships of the S.M.T.C. Fleet arrived in port it was decided to aid the people in this work, and a competition was arranged among the ships to see who could give the most assistance, and our crew, led by our commander herself, won.

Sailing away we were once again beset by storms, and fearsome denizens of the deep (certain businesses of the city) arose and vanished into those unexplored depths with some of our best able seamen, thus halving our original numbers. Cries of sorrow rose from our decks, so another vessel transferred six men to us. The needs of commerce not yet being satisfied though, yet more of our seamen were seized and disappeared beyond our ken, leaving us to weather the storms without their aid.

And now, a land arises on the horizon, the Land of Commerce; all gaze at it, for our three years' voyage is drawing to an end, and we wonder what awaits us in this distant country. Good sailors are never so happy as when on the ocean, and like true good sailors, we shall always remember and long for our valiant vessel, no matter whether success or failure meets us in the future.

—N.G.M.

☆☆☆

STANDARD WEIGHTS AND MEASURES

The first standards in New Zealand were obtained in 1860, and were in use until about seven years ago, when a complete new set of standards was obtained. The Ministry of Labour is charged with the custody of the primary standards, which are kept in a special standards room in Wellington and are used every two years for verifying or testing the Departmental standards. The latter in turn are used for verifying the standards kept by inspectors of weights and measures in the various towns throughout the Dominion.

COMMERCIAL 3B

Since the commencement of the year, which found us an enthusiastic band of thirty, looking forward with undaunted ardour to the year ahead, our numbers have been sadly depleted. The first term exams were responsible for the reluctant departure of seven of our members to join the ranks of Commercial 3A. Of course, we do not wonder at the reluctance. When our third year of secondary school arrives we are regarded by lesser members of the school as being far above the mediocre exponents of the respective arts of shorthand, book-keeping, and typing.

Under the new and strict regime of "NO talking in the corridor" we find it rather hard to uphold our dignity; still we are in the van with the good, the exemplary classes.

We did not do as well as we had hoped in either the Swimming or Athletic Sports, but we can proudly claim the Senior Swimming Champion. But we have a grievance. Why, oh, why, were we not chosen to partake of the bounty of blessing, John Court and Sons? It is a sore question with us. Some one suggested that the morning tea had held first place in our thoughts, a statement which needless to say, was indignantly repudiated.

We had not even thought of such a thing—at least, not much!

So ends our dissertation, small, as our class is, but we hope interesting.

COMMERCIAL 2A

Commercial 2A, the brightest, best and brainiest (no not brainiest!) girls in the school, greet you for 1935.

We make ourselves heard not only in the classroom, but also on the sports-field, for was not one of our number winner of the Junior Championship at the Athletic Sports? We have, also, in our form, a budding Paderewski, who has the honour of playing the piano for the practices of the "Mikado," which the school-pupils are presenting as the annual concert.

We quote this little "lighter moment" in Commercial 2A's usual routine. "Miss J— had asked us whether or not a certain girl had left school. Upon hearing that she had done so, she said, 'Tell her to come up and see me—' but before she could conclude, one of our witty screen devotees chimed in with the universal ending—'sometime!'" We have not yet heard the conclusion of the original remark!

COMMERCIAL 2B

A member of the staff says we are a very good class—at forgetting!—and perhaps, that is a fairly good description of Commercial 2B, at times.

To everyone's surprise, our form has been congratulated on the neatness of our book-keeping. We have in our class, Ruth Holbrook, who is entering for an annual speed championship.

Margory Griffiths, because of her excellence in judo, gave a demonstration at this year's Winter Exhibition.

An exercise in an English book was to write the following in simple English: "His hirsute appendage was dexterously removed by a tonsorial artist." One bright genius gave this simple reply. "His appendix was removed by an artist, who was good at taking tonsils out."

It was stated by a certain bright Wendy one day in history, that the boats which travelled between England and America during the 19th century, were barges towed by horses.

It was asked of a teacher in a certain history lesson as to who would be heir to the throne of England if the Prince of Wales had twin sons. The surprised teacher answered that it would be best to wait until the question arose.

Last, but not least, Commercial 2B is noted for the quickness it displays at packing up its books when the bell rings.



THE START OF THE GIRLS' SKIPPING RACE.

—By Courtesy of the "Auckland Star."



A HAPPY GROUP AT THE ATHLETIC SPORTS.

—By Courtesy of the "Auckland Star."

COMMERCIAL 1A

Room 37 was in an uproar, everyone was talking and no one was listening. The form sergeant and prefects did their best, but in vain. It was only when a teacher's form loomed at the door that silence prevailed. As you have guessed this class was Commercial 1A, but, of course, we are not always like this, as we have the following motto to keep up:—

Commercial 1A,
We work all day,
Do homework all night,
But keep merry and bright.

At the end of the first term our form mistress left us to go to England, which caused disappointment amongst the form, until our present mistress filled her place. The girls of the form are very keen on sports. In the swimming sports one of our number won the junior championship, and many others won their heats, and some did well in the finals. In the athletic sports we also did rather well. One of our girls was the runner-up in the junior championship and nearly every girl took part in at least one event.

Although we have the reputation of being the noisiest class in the school, we can work when we like. Though we don't always feel inclined to work, we are—when we remember—a really good form.

COMMERCIAL 1B

The pupils of Commercial 1B, like those of other classes, excel in some subjects more than in others. We are specially proud of one of our members whose ability was such, that she was chosen for the school orchestra. Well done!

The generosity of New Zealanders towards the Crippled Children inspired us to help, with the result that our "Quits" Competition raised 10/-.

With becoming modesty, we admit that we did very well in the Swimming Sports, gaining prizes for the following events:—Junior championship backstroke, dressing race, neat jump, neat dive, swimming (under 14 years).

Again, at the Annual Athletic Sports the 220 yards running prize was left in our good care.

Altogether we feel rather proud of ourselves, but do not tell anyone we said so. They may think we are boasting.

COMMERCIAL 1C

This is Commercial 1C, broadcasting from their form room, No. 39, at Seddon Memorial Technical College, Auckland, New Zealand. We are about to announce the weather forecast.

An intense cyclone in the form of examinations is steadily approaching, and all pupils are given a warning of a stormy month. The term is nearing its close, and the sunny days ahead are to be preceded by this heavy downpour. We again repeat the warning, beware of examinations.

An item of interest is now to be announced, concerning our late form teacher, Mr. T. H. McCombs, who has been teaching at Seddon Memorial Technical College, is now a Member of Parliament for Lyttelton, being elected by a good majority. We are all very sorry to lose our form-teacher, but nevertheless, we

have now got Mr. Edwards in his place. We are luckier than other forms, for we have two teachers, the other being Miss Boynton, the health mistress.

The announcement recently recorded about the term examinations leads us to the position in class of the girls. The top girl, Nita Parrent, who is by far the smallest in the class, as well as the youngest, must be praised for her good work.

At the beginning of the term, we lost one of our fellow pupils, as she was transferred to a different form, Commercial 1B, and one having left at the end of the previous term, left two places in the form, whereupon, two boys from the Accountancy Class were transferred to our form, much to our surprise. The class now consists of boys and girls, 2 boys and 42 girls. We suppose the boys feel bashful.

We will now change over to the Happy Helpers, so called because we help the poor, by making clothes for them, bringing from home discarded clothes, collecting wool to make patches, and giving small contributions of money to the "Happy Man," which is a money box with the face of a man laughing. This activity is taken up on Thursday afternoons during the hobby class hour. While the other classes of girls are busy at elocution, play-reading, musical appreciation, and other activities, our form is happy knitting and sewing. We are sure everyone will agree with us, that this is a most delightful form, and when looking through the school, one will always find Commercial 1C, full of fun.

"Commercial 1C is a happy band,
Always willing to lend a hand,
By making clothes to help the poor,
We're sure no form is loved by more."

COMMERCIAL 1D

What fun we have had in Commercial 1D
Could anyone else be as noisy as we?
Our teachers, I'm sure, must have suffered great
pains,
In attempts to enlighten our very dense brains.

What with book-keeping, shorthand and typewriting,
too,
We hard-worked Commercialists have plenty to do.
At the end of a day our poor heads do whirl—
I wonder if study is good for a girl?

During the year, one of our number excelled herself by selling over thirty tickets in aid of the Crippled Children's Fund.

A most respected member of our form is Esther Moss, a Prefect, who migrated from the Domestic Course to us.

☆☆☆

THE OLDEST SHIP—136 YEARS AND STILL SAILING.

The sailing vessel *Lisa*, stated in the Shipping Register to have been built at Troense, Sweden, in 1799, and now established as the oldest vessel in the world, is owned by three brothers in Korshamn, two of whom sail as skipper and mate. In appearance she is an interesting little vessel, resembling the Arciform ships in a striking manner, especially about the bows and quarters, and the heavy timbers of which she is built are remarkably sound for her age. The *Lisa* is reputed to have sailed for a period of ten years in her younger days as a slaver between the West Coast of Africa and America.



COMMERCIAL we are, artistic too,
 OUR book-keeping most of our troubles doth breed!
 MR. ED— says, "T'will never do!"

THREE dutiful sergeants have we lost,
 WHAT business has gained, has been at our cost.
 ON the same seas soon we all will be tossed!

ART'S our ambition; art is our aim
 REAL hard work we sometimes attain.
 TRY now to guess our noble form's name.

GEOGRAPHY OF REGION NUMBER ONE . . . THE COUNTRY OF COMMERCIAL ART

This is Station I.O.U. on relay from S.M.T.C. We now announce the weather forecast. A terrific cyclone—commonly known as exams—is hovering in sight and we are setting to, to learn our work. We now introduce Professor Xanthoprotic, who will speak to you on the geography of the country of Commercial Art: "Good evening, everyone. The country of Commercial Art may be divided into two natural regions. 1. The Tropical Region—This consists of the two rooms nearest the window in room 38. It is a coastal region, but commands a good view of the surrounding country. The climate is hot all the year round, and has an enervating effect, so that the only permanent occupation is wood cutting, and vegetation is produced and exported by air into the interior. 2. The Frigid Zone—This consists of the two rows near the door in the same room. Violent blizzards are experienced, little heat penetrates, and vegetation is sparse. The people are unable to work owing to the coldness of the climate. Good evening, everybody." Well, my friends, as this brings this short session to a close, the time being 10 p.m. station I.O.U. (The voice of the creditors) is closing down until next year. Good-night, everybody. Good-night.

Domestic III. jolly and bright;
 According to elders
 Could never be right;
 In work we do not excel
 Though in sports we do quite well.

In number we are twelve,
 We're quite a happy throng,
 Domestic III, who sing this song—
 Next year you may see
 What remains of Domestic III.

According to our present reputation, we are likely to become, so some teachers think, expert back fence gossip. To our minds, to be able to chatter incessantly is one of Nature's gifts, though, perhaps, she did apply the oil a little too freely to our tongues, as they wag in obstinate disregard of threats, pleas, and executions on the part of our long suffering teachers.

Some of us, who have endeavoured to give an example of our beautiful language (while teachers are absent), have had the thrilling experience of forming part of a private audience after school. However, in spite of our preference to spend our time merry-making we have in our midst the head girl, prefects and councillors, who occasionally remind their sadly erring companions of the very honourable position they hold, and endeavour to lead the culprits back to the straight and narrow path.

Naturally the question arises—can we cook? Why, yes, we have in Domestic III, the celebrated cooks of the college, for have we not the honour of preparing the lunches, not only for the school cafeteria, but also for a number of the staff? In fact, there are so many demands for the service of Domestic III girls, that our class, which at the commencement of this year was over twenty, has now dwindled down to twelve.

Recently a very tragic result was the outcome of attempting to remove some stains from our cooking uniforms; for although the stains were eventually removed by the time our aprons had gone through a newly-greased wringer, they rather resembled some kind of floor-cloth.

We all feel very much enlightened upon the great subject of diets, and now that we have almost completed our work on same, we are sure we will be able to be trusted to prepare the dog's menu without causing the creature any great discomfort. In order that we may be familiar with the correct caloric value which constitutes a perfect diet, and so help to build up a strong rising generation, dogs as well as other animals.

Of course, we are all dressmaking experts, although it does not seem as if many save us with us on this point. One of the many crushing remarks was that the smartly tailored (?) coats we made last term, should be the garments we have to renovate this term.

In spite of our learned English teacher's good advice to read, mark, learn, and inwardly digest, as we proceed through the term, we prefer to sit back and take a little nourishment, but now that the fateful eve of exams is close upon us, it only remains to be seen that some of our particularly skittish members are now preparing themselves for the great event, and a most studious visage and scholarly air is quite prevalent throughout the form. But when all are safely past and joy reigns supreme again, we are sure we will deserve the praise from the most learned one, "well done thou good and faithful servants."

DOMESTIC 2A

Hello, Everybody—Domestic 2A calling. We are a class with well-developed talking abilities. In our midst we have the intermediate champion of the Athletic Sports, Vera Faulkner, Mavis Glassey is the intermediate champion of the Swimming Sports. Also we have a very good tennis player, Ivy Smith, who narrowly escaped distinction.

One of our honourable members seems to take a delight in being on the floor. While "swinging" on her chair she fell backwards and upset the desk behind her. She landed on the floor, bringing upon her anything but clucking hands fell upon, and also the wrath (?) of the teacher, and the mirth of the spectators.

Early in June we paid a visit to John Court, Limited, where we obtained a great insight into the running of their interesting factory and shop.

The beginning of the second term found that our form-teacher, Miss Lee, had left and that we had a new form-teacher, Mr. Scoble.

We have in our midst two sub-prefects, Betty Stratton and Dorothy Tainsh, whose endeavours to keep us quiet have nearly succeeded.

Domestic 2A closing down, now, Cheerio!

DOMESTIC 2B

There are many forms who depend for their fame upon routine examination subjects and mere theoretical work; but in our midst is the best of Domestic 2B, for it is noted for the perfection of its cookery, dressmaking and home science.

One look at the shining faces of those wizards of the "cafe," the Domestic girls, day after day serving hot food of superb quality over the counter, is sufficient to induce the person of the most fastidious tastes to stay awhile and eat a morsel—and then a meal!

At the best of time boys are stupid creatures, as we all know, and this certainly seemed to get on some-
 else's nerves when our form were enjoying the usual late hearty lunch in Room 28. The boys kept peeping round the door and staring at us (one thing we object to, like the King and Queen of France, is to be stared
 at while eating)—thought she would put a stop to this nonsense, so she stepped behind the door, with a ruler raised in her hand, intending to hit the next one who ventured in.

The door opened slowly. Standing like the Statue of Liberty (but with an even more fixed look)—made ready to strike. But, alas and alack! the next person to enter the room, came not in the form of a mischievous boy, but of Mr. ———. Picture then a rather stern looking teacher facing a very downcast maiden. Afterwards we all enjoyed the joke, but at the time we did not think so funny.

When Miss ——— remarked: "Follow the work on the board girls." We were all surprised to hear the "trick" of the class query—very low tone: "Where's it going, I wonder?"

DOMESTIC 1A

No one has any faults to find with Domestic 1A. We are quiet, we are happy in our work and in our play.

In science if we're slow, perhaps we're very, very sure.

Our spelling may be dreadful and our sums a little poor.

But in needlework we're models, a high standard there we reach,

And in history we're wonderful, "A pleasure quite to teach!"

When it comes to raising money we all work with a will;

The coffers of the Crippled Children's Fund we helped to fill.

So there you are, you see it is quite true what we say—

No one has any fault to find with Domestic 1A.

DOMESTIC 1 B

We try hard to make good bread,
 Our scones are about as heavy as lead!
 Our domestic duties we all do hate,
 Because they sometimes keep us late.

In dressmaking we are very clever
 At fitting and sewing sleeves together,
 Our tacking stitches are very small,
 But we like big ones best of all.

Our arithmetic, it is very sad,
 It is not good but very bad,
 It goes in one ear and out the other,
 And causes the teacher such a bother.

Our form room is very neat,
 Overlooking Wellesley Street;
 Out of the window we do gaze
 Upon the park across the ways.

But for all our wandering thoughts
 We aren't half so bad at sports,
 So this ends the notes of Domestic 1B,
 Which are very good as you can see.

DOMESTIC 1C

The girls of Domestic 1C are the jolliest and most sporting form of the first year Domestic. We try our hardest at our work, and although we do not excel in every subject, we keep up a good standard. We have in our midst an excellent basketball player, Betty Riemann, of whom we are very proud. Our "class humourist" is Gwen Rollicorn, who wrote our class poem. Miss Altchison is our form mistress. At the end of the first term we lost one of our teachers, Miss Lee, who took us for arithmetic and English. We were very much grieved at her leaving, but now in her place we have Mr. Scoble.

We are the girls of Domestic 1C.
 Happy, merry and jolly are we,
 We do our best at work and play,

Through morning, noon and all the day,
 On Monday afternoons we sew,
 And prick our fingers and say, "Oh, blow,"
 On Tuesdays off to sports we ride,
 And jump around from side to side.

Now Wednesday is the worst of all,
 There's history, English and arithmetic, too,
 All the things we hate, to do,
 But everyone looks for the following day,
 When sewing again doth come our way.

On Friday afternoons we cook,
 In the morning we read from a history book,
 All that happened at "Teck" long ago,
 When all our elders used to go,
 And now you know as much as me,
 About these girls of Domestic 1C,
 Who work and toil from morn till night,
 And still look just as jolly and bright.

DOMESTIC 1D

It was with regret that we lost our form mistress, Miss Cruikshank, but her place has now been filled by Miss Galloway.

A terrific form is Domestic 1D.
 The teachers cry, "Oh, dearie me!
 If only you girls would just attend
 Then I am sure that you would comprehend!"
 Our poor form mistresses was at her wits' end,
 For tired was she, our ways trying to mend.
 Every minute she'd cry "tention!"
 But do we obey—did I mention?
 One of these days we'll turn very good,
 Then teachers will cry, "Didn't know you could!"

Of course, these fits don't last very long. And then again it will be the old song—Terrible Domestic 1D.

☆☆☆

What is a Yard?—Henry J. decreed that the length of his own arm should be the standard yard of cloth measure. That standard is preserved to this day. A copy of the Imperial standard yard, which is a solid bar of bronze, 33in. long and one square inch in section, on which 36 divisions of one inch each have been marked off, is kept at Wellington.

ELECTRICAL ENGINEERING - DIPLOMA

The month of February, 1935, saw the founding of a new form in the Seddon Memorial Technical College, namely the "Electrical Engineering Diploma."

In the past years electrical engineering has not been taken in the day school to a stage advanced enough to establish a Diploma Form, but this year five pioneers congregated to make their debut. The fame of this class has tended far enough to entice members from other secondary schools in the North Island to join our ranks. From the Waiangarei High School came Lindsay Wallace, from the Auckland Grammar, R. E. C. Taylor and from Mount Albert Grammar we have a new chum (p.), J. R. McClymont. The three other originals are old timers of the Engineering Course.

Achievements and Performances.

J. R. McClymont (Adam)—School Certificate, champion rifle shot of Mount Albert, 1934, and a representative of Tech. in the Earl Robert's Shield, 1935. Also in the machine gunners.

L. H. Rowe—Matriculation and Engineering Preliminary and School Certificate exams. A hopeful candidate for the badminton championship. Also a high-light in the Lewis gun corps.

L. G. Rowe (Potty)—Matriculation, Engineering Preliminary and School Certificate exams. Sub-Prefect. Member of Rifle Club, and a representative of the College in the Earl Robert's Shield (1934 and 1935). Another competitor for the coming badminton championship. Head laboratory assistant.

R. E. C. Taylor (Bobbie)—Matriculation and Engineering Preliminary. Attends 'Varsity to prepare for the B.Sc. Is seen with the 'Varsity marksmen at Penrose, and is in the school artillery. Budding badminton enthusiast.

L. Wallace—Matriculation. Plays football for Second XV. Studying for the B.Sc. at the 'Varsity, and is a member of their Rifle Club.

D. H. Williams (Squiffy)—Matriculation and Engineering Preliminary. Fastest time in cross country run (1934), and reached semi-finals in boxing championship (1934). Likewise a badminton crank.

All the above (except our new comer) sat for City and Guilds Electrical Exam, in May, while D. H. Rowe and L. G. Rowe are also preparing for the Stud. I.M.E. exam. to be held in October.

After wading through the above and having seen their arrival at the Swimming Sports (via yacht), it is obvious that the Electrical Engineering Diploma class is a very promising group to pave the way for a new course.

N.B.—For repair jobs all care (?) but no responsibility taken (advertisement).

MECHANICAL ENGINEERING - DIPLOMA

The most distinguished of all the Diploma Classes is undoubtedly the Mechanical Engineering Class. It is very exclusive, so much so that its members are limited to only the highest lights of the College. On the average, the attainments of our class must easily rank the highest. We have all gained Hindley Scholarships, we are all Prefects, and we are all in the School Second Fifteen. At school work we excel and are the only class that can claim that its members have all passed sturdiness, but we are very modest, and, therefore, must not boast.

The teacher on coming into the room is often astounded by the quietness. The absence of flying chalk and upset chairs, in fact, the room is usually so tidy that he takes painstaking efforts to ascertain if we are present. Having satisfied himself that we have not arrived, he is on the point of going to follow, when he espies a sleeping figure curled up comfortably on a very hard chair, feet resting on a stool, and head reposing peacefully on an unopened school bag. He immediately gives a most blood-curdling shout, which is not only sufficient to wake us up but to start us working automatically. We are

set a certain amount of work which is finally accomplished by the help of snoozes and snacks of lunch.

At metalwork our path is fraught with danger, for not only has our instructor, Mr. H.W.H., a loud voice, but a straight left followed by an extraordinarily quick right hook. Many years ago, in our first year at the College, we realised that if we were to succeed at metalwork we had to follow either one of two alternatives, viz. stand still and be hit until the hardening process (by cold working) had reached such a stage that further hitting was of no avail, or make a study of our instructor's mood, health and vigour, and so be able to anticipate when trouble was approaching, and with what force. We of Mech. Eng. Diploma, are glad we followed the second alternative, for now we have so mastered our study as to know by a mere look at Mr. H.W.H., when the blow is coming, and a smart feint or dodge is sufficient to avoid a very friendly pat.

Probably one of the greatest attractions to the Diploma Course is the mid-day cup of tea. This wonderful stimulant can be obtained by joining the Tea Brewers' Club, at the modest subscription of 3d. per head, per week, perhaps. This daily cup of tea is not only a great beverage, but is a tremendous help to the digestion of a dry lunch.

In conclusion, we might add that our class, Mechanical Engineering, Diploma, contains only one member, the innocent victim of many a teacher's wrath, and nowadays, the snores of this innocent may be heard in the Diploma Rooms and his groans in the workshops.

ACCOUNTANCY 3

Every morning at nine a steady buzzing sound floats through the ether of Room 15. A stranger may be led to believe that some scholars' minds are working overtime; but be not misled, it is only Accountancy III, and its obscure other half, E. 2A, talking things over.

During a vocabulary lesson our form-master, Mr. Burley, was showing us how "contact" was derived from "tactum"—"touched." To illustrate this he announced in clear, ringing tones, "I am touched." Of course, the whole form was astonished at this revelation, for we did not imagine that such was his state.

During French in Room J we may see many of our heroes reduced to nervous wrecks. Our mighty rotund epicure named Ferrif, does not think of his delicate stomach, for his jaws are stilled from over-eating; his greatest rival, Carson, who for want of courage has allowed his razor to become blunt; our draughts champion, Stanley, sits cracking his knuckles as if pensive over the checker board.

What are those things protruding from the waste paper basket? Allowing our gaze to wander up, we see a sub-prefect, Emus, diving into French with his mind and burying his feet in the basket for want of heat.

Owing to the lack of interest in French and the dislike of the amount of work entailed, an old saying, "Tu n'as rien dit (if annoyed)" has polluted the minds of our young innocents, so several members have joined the Crusaders (A club for Good amongst Evil), so that when they leave this world all that happened in 1935 will be forgiven.

Sports—At the beginning of the year our swimming relay team: Sutton, Harrison, Carson, Emus, Findlay and Whitley, splashed through all the cold water in the bath to victory, before the opponents had dragged their trailing bodies over half the distance.

Our athletes are Harrison, sprinter and long jumper; Emus, middle distance; Morrison, sprinter; Manning, all-rounder; Stanley, Murphy, Ozich, Hirst, Martin, Buswell, Sutton and Carson*, who all did their best to uphold the form's noble reputation.

*Carson—This lad in his first year was called "Twinkle Toes." He sure must have twinkled his toes to make a bulky dash for victory in two events.

An S.O.S. from stricken detentionites—would Mr. Cox please install beds and bedding in Room J for Accountancy III's use on "dirty nights."



SUCCESSFUL GIRL ATHLETES.

—Photo by G. K. Helmholz



WINNERS OF THE GIRLS' SWIMMING EVENTS.

—By Courtesy of the "Auckland Star."

ACCOUNTANCY 2A

During the course of the year five of our members withdrew from our ranks to represent us at the Post Office. As one of our instructors remarked, it will soon be unsafe to post a letter.

Lately our attention has been diverted from such serious matters as French and Geometry by strenuous competition at Kingsboard during lunch times, and a marked improvement in the physique of the form has resulted. Even our form teacher has not been able to resist the lure at times. Much amusement has been gained from the "Kellow crunch" and the "Rosenfeldt wriggle"—two very successful types of stance adopted by players.

As a break in our classroom work the following amusing episodes were a very welcome relief. One day while reading some history to the form, P.—, stated that the Wars of the Roses were finally settled by the "Bottle of Blackworth". Another time we were rather astonished to hear during a lesson on suffixes, that a molecule is "a little mole." Would that make Wisley a little whale, we wonder.

It is rumoured that Krause intends to join the Fire Brigade. For two periods every Friday afternoon he practises hose drill in Room 12, much to the discomfort of several members of the class. If he did join up, however, a building would probably be burnt down while he was arriving on the scene.

ACCOUNTANCY 1A

Thump! Bang! Crash! No, not an earthquake, merely the boys of Accountancy 1A changing classes. Of course that was in the general and distant influence of the girls, and after repeated requests to "stop throwing the furniture around," to "leave a little of the school standing," and to "stop banging those confounded stools about," we have desisted (?) from heralding our approach in quite so boisterous a manner.

Our noise and frivolity, however, are but a cloak for the serious, studious natures, the brilliance, the genius of our form, which lies buried beneath (buried very deeply). Just in case you do not believe that we are very studious, we would like to announce that with the aid of our maths master we are about to publish a "new era" geometry book, which should be quite an inundation, I mean a revelation to the geometry world, consisting as it does of data "all out of our own heads."

As well as being studious, however, some of the members of our form are also very sensitive. For example, one afternoon when, as usual, we were all very hard at work, a slight stir attracted our attention, and all gazed enquiringly at one of our number who was carefully stacking her books into a neat little pile, which she presently transferred with grave dignity from the desk of her companion to a vacant one in front. Here she sat down, settled herself into a comfortable position and went on with her work. The reason for this divergence from the normal course of study was a slight difference of opinion with her companion, which could not be settled satisfactorily at the moment.

The boys, however, use a more forceful method to settle their arguments, which is not always discouraged by their teachers. A boy, his face very red beneath the dirt, his shirt very much the worse for wear, and his socks resting on the tops of his boots, came into class one afternoon about ten minutes or a quarter of an hour late.

"And what's happened to you, my young friend," demanded the teacher eyeing him critically and not without distaste.

"Had a fight, sir," briefly replied the miscreant.

"Oh! Had a fight did you. The point is though, did you win?"

"Yes, sir." The red face glowed triumphantly through the grime.

"That's all right then. Go and sit down," replied the teacher in quite a gratified tone of voice. Perhaps he is not so old that he does not remember that he, too, was once a boy.

AGRICULTURE 3

We started the year with a total number of fourteen, but now we have only nine left. On June 3rd we left Auckland Station for an eventful day at the Waikato Winter Show. One member of our form gaining distinction with a collection of grasses and weeds. We were treated very well at the show, the committee giving us afternoon tea. It takes more than Messrs. Davis and Jones to be triumphant at the bridge evening on the return trip.

At the Auckland Winter Exhibition we had exhibits in the classes of Insects, Grasses, Weeds, Marrows, Lemons, Oranges. All gained prizes except the Lemons and Oranges.

The Agricultural Club has had several successful meetings in Room K, where various speakers have kindly given very interesting lectures. The club has held two shows so far this year, a summer show and autumn show. An addition to Room K is a supply of all the common fertilizers, which can be purchased for a small sum during lunch-hours.

The form extended its congratulations to Ian Jensen who was awarded a Hindley Scholarship.

AGRICULTURE 2

We feel that we have grown up. From vegetables and fowls we have graduated to pigs and ploughs, from fruit to fertilisers, and from plants to animal husbandry. In our second year, we now go to Miller's Span Farm at Glen Eden for practical agriculture, and what we learn there is applied in our live stock work. No F—y, there is never any wind on a farm!

As juniors stewards at the summer show, we assisted the judges in the different sections. By the end of the day we found that the judges usually agreed with our decision!

In class we have led a quiet and harmless life. Worries are few, and when black clouds gather and our masters glower, we wait for the silver lining that always appears—they all seem to smile again.

AGRICULTURE 1

One day in a book-keeping lesson the teacher asked a boy what he was eating. The boy replied, "Nothing, sir." "Chewing your cud, eh?" "Yes, sir," replied the boy. "Well, you're the first cow I have ever taught," answered the teacher, who now in Parliament Grounds, Wellington, no longer finds it necessary to teach cows. Many boys have taken an interest in the plots at Benson Road, where Mr. Pye gives lessons on pruning and budding. One day while out at Benson Road, two boys, Smith and McCarthy, had a wheelbarrow derby, when McCarthy (12 stone) wheeled Smith (11 stone) from Remuera Road down to the farm, amid cheers from our lone cow and from the poultry. They finished in grand style, the wheeler half bandy and the occupant suffering from a jolted body.

During the year visits have been made to the Auckland Winter Show and to the Waikato Winter Show. The boys thoroughly enjoyed these visits, particularly the trip to Hamilton, and came away much wiser.

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July, 1935—Twenty years, nay, forty years hence the 1935 students will still talk of the winter, and particularly, July of that year. What havoc the weather created with the Tuesday sport's afternoon! Week after week the rain poured down, and even when the sun did peep out for a few hours, the boys heard with annoyance and, finally, resignation, that the Domain was not available for sports. It was not surprising at the end of July to find that, over 80 years that rainfall has been recorded in Auckland, a record fall of 19.55 inches had been established. The average rainfall for the month of July is 4.95 inches, and the previous record was 5.69 inches in 1917. Unless a drought sets in, it is likely that 1935 will prove to be one of the wettest years on record.

ENGINEERING



ENGINEERING 3A

Scholastically and physically Engineering 3A has always been a credit to the school, and this year it is no exception. The College Athletic Sports was a triumph for the form, which, contrary to all expectations, produced both the senior and intermediate champions, Thorpe and Covey, and added to its laurels the two records broken. The sequel to this meet, the Secondary Schools' Sports, resulted in the form being represented by four place-getters, honour unsurpassed in the history of the College. When the merry ring of the leather on the bat echoes across the Domain and King Willow holds the sceptre of sport, one will find many of the E. 3A, in the highest teams of House or School, leading teams to victory (7). Winter brings to us the national game of football, and here again the clan is well represented. In conclusion, we can sum up the celebrities of the form.

Prefects—Thorpe, Tweedie.

Crickets, 1st XI.—Woolley.

Athletic Team—Covey, Thorpe, Tweedie, Woolley.

Football, 1st and 2nd XV.—Anderson, Massicks, Thorpe, Tweedie, Woolley.

Holders of Records at School Athletic Sports—Thorpe, (880 yards, senior), Woolley (shot putt).

Sergeant-Majors—A. Company, Covey; B. Company, Thorpe; C. Company, Tweedie; D. Company, Massicks.

The casual observer has only to visit our various rooms of study and he will be struck, not by an ink pellet, we hope, but by the familiar attitudes of our masters. He has only to hear Mr. T.'s biting sarcasm, Mr. S.'s deadly descent upon the non-homeworkist, to see Mr. T.'s fainting fits, and the result of Mr. F.'s English tests, to appreciate fully the life of E. 3A.

ENGINEERING 3B

Owing to the fact that the literary geniuses of this renowned form have declined to write these notes, on the plea that such trifles are beneath their dignity as potential writers, the task of recording the remarkable doings of Engineering 3B has fallen to my weak pen.

Although in numbers we are a small form, we make up for it on the playing field, sports, and the classroom. The facts of the two former spheres are too universally known to make it necessary for them to be given here—sufficient to say that in the swimming we were second in the form relays, and that several members distinguished themselves on that day and on the day of the athletic sports.

In the classroom we are no less distinguished. Most of us sat for London City and Guilds last May, but it was said that we would not get the results till October. Though we know now who the lucky ones are at the time of writing these notes we did not, and has only to go to the drawing office or the workshop to see our draftsmanship and craftsmanship, though we have several bright sparks in each.

Summing this all up we may say, with apologies to Elbeick, that "There is no form like E. 3B, and no boys like E. 3B boys."

ENGINEERING 1B

The minds of Engineering 1B dwell principally on the subject of Electricity, as the following little extract shows. It is entitled "England—Our Class Sergeant," by D. Dunn (Well done! Sir Done-well!):—

"England's battery became heated when Burgess started short-circuiting, England tried to drag him out to the front, Burgess put up the greatest resistance to his conductor, England began an Ohm's Law argument. For a while there was a field of attraction in the class; they gave forth an internal resistance towards England, who tried again to drag Burgess across the cross-sectional area, Burgess' resistance again came into play, but England's electro-motive force came too great for him."

ENGINEERING 1A

Now it did come to pass that on the fourth day of the second month of the year one thousand nine hundred and thirty-five, some twenty-two youths, fair of countenance (?) did vend their way to the Queen City of the country of New Zealand, and there they did proceed to the Temple of Learning, which was then called the Seddon Memorial Technical College. Now these twenty-two youths did gather together under one master, and they were known as the Tribe of Adam's.

Now some of the older inhabitants of the temple of the most learned inflicted upon the infants some of the salt of the earth, and the infants did thereby suffer exceedingly. So did also the older inhabitants.

They did make their abode in a room, which was known as Room B, and did study much in the art of figures and the mysteries of which their most learned master did unfold to them.

The youths were shown many new and wonderful things, some of which their minds were too feeble to understand, and these things did just pass through their minds as does the wind in the trees.

Now on a certain day when they did delve in the depths of science, they were disobedient to the high one, and, therefore, they were detained here much longer than they would otherwise have been. And on one other occasion, when they were in this same place, four of their number did fail to carry out the work which was set them, and the most high one did punish them exceedingly.

And verily it came to pass when one day they were endeavouring to grasp the fathomless mysteries of the native tongue, their most learned teacher did inform them that the King of England was the Queen's wife.

Now they did take these words and did ponder over them day and night trying to understand their meaning.

And one day after they had partaken of victuals they did all vend their way to the green pastures where they did proceed to make much noise. It appeared that they had one article round in shape, made from the hide of wild beasts, that they did endeavour to capture and to vent their wrath upon. And they did also fight with the other youths who did happen to cross their path.

And then there came a time when their most learned masters decided that they would examine the minds of their prodigies to see if the words of wisdom which they had spoken had been taken to heart and meditated upon by these youths. And they did find that sometimes the wise words had fallen on rich ground, but in some other minds there had been but stony ground, and they could find no trace of the wisdom they had imparted. Here endeth the first chapter of E. 1A.

ENGINEERING 1C

"Station E. 1C broadcasting an relay from Room O," the new building, Seddon Memorial Technical College, Auckland.

We are starting our session this year with a relay of all the term events.

Many were the gay periods we spent at mathematics with Mr. —. (Station cut off the air here, owing to matter being broadcast of a controversial nature).

Well, that's, too bad. I'm afraid we're nothing more to interest you, so we'll close down and copy our homework with our good night melody:—

"Who are we? Who are we?"

We are the boys of E. 1C.

When at work and when at play

We are happy, merry and gay.

Ha! Ha! Ha! He! He! He!

We are better than E. 1D!

When at work and when at play

We are happy, merry and gay!

ENGINEERING 1D

Engineering 1D, the illustrious! The form that leads the way! (We don't know where yet!)

However, we cannot be a band of happy lads, who amidst all our jokes and fun, bear in mind our school motto: "Vite non Scholae Discimus" (We can't spell it too well yet, but we try to live up to it!)

The form names give ample scope to anyone who is inclined towards short story writing, and we can give you a real half page novel.

For instance, we have a LYON, being also the proud possessor of a MAIN, and, of course, DAY and KNIGHT tell you how we expend our labours on our school lessons.

We also have a MARSHALL—very necessary, too, as we have six brawny Scotchmen—all MACS—to keep in order. Of course, our LORD has to keep the peace when the boys are MASSON about instead of getting on with their lessons.

One poor CHAP—MAN, I should say—thought his thumb was a piece of timber and shaved it in the plane. First aid was applied by putting LINTON, LUCY (Now, now, boys, who is that?)

Oh, yes! It's our right! He's our beloved sergeant, and LAWRENCE of Ara—my mistake—E. 1D hunts LYON occasionally.

Then there's Mitchell and Kendrick, but seeing they're the only ones I can't include in the story. Well—that's all!

ENGINEERING 1E

Engineering 1E are an intelligent form (?) who do not hide their light under a bushel, and are quite prepared to prove that they are the star-form of the year. This being their first year, it has been necessary for them to prove their merits by the way they wear their caps, and to show them—by always making as much noise as they possibly can, and by general untidiness, attracting the attention of all prefects and masters with whom they come into contact. So far their methods have resulted in attracting quite a lot of attention, and now they have settled down to show their merits in other ways, and hope by the end of the term to prove by their record that the attention that was paid to them especially the Friday afternoon detention, has had its effect.

ENGINEERING 1E and F

E and F are we,

Cheerful and carefree,

All good pals,

And jolly good company.

In metalwork and science,

We strive and do our best.

But in our mathematics,

Some fall in every test.

So, merry now are we,

And happy as can be,

All good pals,

And jolly good company.

As we entered the school gates for the first time, our hopes were very high at getting metalwork at least three periods a day. But, you can easily imagine our disappointment and sorrow at learning that we only had this interesting subject twice a week. Still, as we don't run the school, we have to be satisfied with what we get.

One of the most interesting sights in our grounds at recess and lunch time, is a boy emerging from the tuck shop, with a bottle of pop under one arm, and his pockets bulging with various kinds of sweets, with a crowd surrounding him, saying in plaintive voices, "You know an old friend, Harry?" or "How about giving me some in return for those I gave you about a month ago?" Even some of his most bitter enemies, he finds, are now quite nice and friendly to him. But, if he ignores all these requests, and walks off to some secluded spot to feast, cries of "Miser" echo out across the grounds from this crowd.

Every lunch hour, when the prefects come out with brooms to make some of us first years clean up the grounds, it is surprising how quickly a crowded ground is cleared, with only a few of the unfortunate ones left behind. As soon as one prefect appears, word goes from mouth to mouth, "Look out here comes 'Thos-ye'" or "bout it, here's L—d." Of course those slow thinkers are caught every time, and have a pleasant time picking up papers or scraps, with a hawk-eyed prefect standing near them, seeing in every corner a paper that cannot be seen by the tired fag.

So, if we get back after the Christmas holidays, a second year class we will be, still good pals, and still jolly good company.

MOTOR ENGINEERING 3

Mr. S—t—n has strove and striven

To make an invalid chair.

To be motor driven.

With a rattling Raleigh.

He still keeps trysin'

To hold it down

With channel iron;

To keep it going

Is the greatest factor.

But it runs very nice

When pulled by a tractor.

MOTOR ENGINEERING 2

Oyez, Oyez, Oyez. Hark-ye, Hark-ye, Hark-ye.

So be it that in this year of 1935, A.D., there have been in Motor Engineering 2 gongs on of a suspicious nature.

It has been said that during the course of an electricity lesson, the noble teacher, diverting from the usual trend of matters, stated that the brewing war between Italy and Abyssinia, was due to the fact that the said Italy could find no place in the world to hoist its flag anew. It was suggested that it be allowed a portion of the South Pole.

"What could they do there?" asked the honourable person in charge.

"Grow Iceland poppies," was the meek rejoinder from Downey, the form's 'kittle pet'!

Again, the said Downey, snooding on the near bench—mistaking it for his bed—after listening to the way in which the tribesmen of the said Abyssinia disabled their prisoners of war (by removing an arm and a leg from each), drowsily inquired if the said noble orator had any more bedtime stories.

Then again, let it be said that when a certain red-headed youth, found to have a vocal obstruction under the guise of a Mintie, was made to yield a full bag of the said Minties, to be returned "next week," he saw no more of them. Perhaps Mr. Closs has lost them amongst the blue prints in the blue print room; or perhaps the rats sent out radiograms, publishing it in their newspaper, or otherwise notified their friends all over the Auckland Province, that the said bag of Minties was reposing in the said blue print room, with the consequence that a regular beano was held under the auspices of the Hungry Rats' Society.

Oyez, Oyez, Oyez.

☆☆☆

A keen lot of fellows are Second M.E.

At least they know motors from A up to C.

There's Wild Whisky Walker, and Madcap McCook,

With Taylor the Talker, and Greasy Greenbrooke.

Then our dancing waiter is Jumbo Jazz Jackson,

But Hard-hitting Hayter, just watch how he smacks

'em.

With Wee Willie Ward, stands Tall Tommy Tucker,

With Love-litling Lord, dear Dainty's lips pucker,

As with his trumpet, Sam Selwyn he wakes,

Who says, "Oh, stow it," such noises he makes.

MOTOR ENGINEERING 1A and B

From the subjects of King James I: Be it known, kind reader, that there is considered to be sufficient opportunities in the Motor Engineering to warrant eighty-odd boys in our first year classes this year, and that 45 of the pick of them are to be found in M.E. 1A and B.

We have in our midst some wonderful individuals. Take, for instance, our champion heavy-weight lifter, Huston and N. Miller; they can lift a pound and a half hammer and shear cut metal using the proper end of the handle, and without tickling their ribs. In our midst we also boast a descendant of a living and eminent English statesman (Hoare), in Clemmett we have the champion long distance absentee—he attended 60 out of the possible 120 half days last term.

On the Rugby field the form is represented by Stone, Miller, Huston, Green, Dainty, Griffin and Boag; while Davison was the captain of the 4th Eleven in cricket. Mention should be made also of Armstrong in the cricket. Greig, Morgan, Hadfield, Owen and Chaney are members of the Thursday afternoon Life-Saving Club, and all hope to become sufficiently proficient to pass the examination for the Royal Life-Saving Society's Bronze Medallion before the end of the year.

Motor Engineering has always been represented in the School Orchestra, and in this connection Broadley is upholding the form name by playing the violin.

We study science, English, history, maths, and motor engineering, and do practical metalwork in the workshop. We always look forward to Thursday's Motor Engineering Theory Class, as we all hope to become expert mechanics, but how many of us will ever become foremen or such like, remains to be seen. At best we will all be able to help maintain the cars owned by our parents or friends, and later service our own cars.

An incident, which took place with M.E. 1B during a recent algebra lesson, is perhaps worth recording.

Mr. O: "If plus 40 means 40 miles north of O, and —40 means 40 miles south of O."

Boys: "Yessir."

Mr. O: "And a train travelling at plus 15 miles per hour is 30 miles north after 2 hours travelling."

Boys: "Yessir."

Mr. O: "That being so, in which direction is the train going, at the same speed, when it wants to go to a station P at —30 miles?"

Boys: "Backwards, sir."

If we have a fair return of boys next year there will surely be at least two large classes of M.E. 2. As it is now, we are fairly crowded in the workshops, especially when two classes come in at the same period.

Recently Mr. H. wanted to charge a boy 2/- for his project, the material value of which was 6d. He maintained that the odd 2/6 was for workmanship.

Whilst a certain teacher of note,

Upon the blackboard wrote,

An artful youth named Trevor B.,

Upon his back pinned, "Please kick me."

The unsuspecting teacher wrote,

Blissfully ignorant of that note.

Anon.

TYPOGRAPHY 2

From what I gather Typo 2 is a class of mischievous boys, overflowing with devilment, and what a class. There are a few, if I may be permitted to say, who delight in throwing apple-cores, etc., but the firm hand of Mr. P—soon had that fixed for us.

We have in our class a few wise-cracking individuals, who are soon sat on if they try any of their brilliant remarks on us. I must admit that we have a very brainy (???) member in our form: None other than R. Huggins, who has earned the nickname throughout the school of "Believe it or not Huggins." Another characteristic of this lad is that he comes in the gate every morning, right on the tick of nine, puffing and panting, and between gasps he tries to tell us that he ran from the Ferry Buildings to school in three minutes (that's how he got his nickname). Keely, a strapping lad of sixteen, is always after someone's homework it seems. But hush! I am told he is Carnera's only rival, so be on the lookout for him. Now we come to a very smart lad, let me introduce you to him, our class sergeant, Chas. Hill.

At the beginning of the first term we received a stranger from the Motor Engineering Course into our midst. Shortly after his transference we were all assembled in the composing room, when a certain Mr. H— came in and espousing Gladding, he said in his quaint dialect, "Ha! Ha! Did you get boomed aft lead?"

The most interesting of all our geographical studies was when Mr. Davis took us for an imaginary wool sale. It was only tried once, as the noise was so terrific. I heard afterwards that teachers in the adjoining building were complaining about the building shaking.

WOODWORK 1

During the year the Woodwork 1 roll number has remained practically the same. Several boys from other forms, upon hearing of our reputation for not doing homework, decided to join our class and try their luck. The class has made good progress during the year according to us. The teachers may have different ideas. During the first term we visited the Kauri Timber Company with one of our woodwork instructors. After leaving the mill, some of the duller members of our class had as much knowledge of the methods of cutting timber as when they went in. After that afternoon's enjoyment we expected to write an account of the visit, but luckily for us we only have this teacher on Thursday afternoons, and by the next Thursday he had forgotten. Is there a happier class in all the school than Woodwork 1. No, say all of us.



CHORUS OF PEERS—"IOLANTHE," ACT II.

—Photo by G. K. Heimbrod.



PRINCIPALS—"IOLANTHE," ACT II.

—Photo by G. K. Heimbrod.

LITERARY SECTION

POETRY AND PROSE HUMOROUS AND SERIOUS

Thanks to the efforts of the Literary Clubs many fine pieces have been submitted for the Seddonian prizes. The competition was judged by the Head of the Girls' Literary Club, Miss Henderson, the Head of the Boy's Literary Club, Mr. Smyth, and the Seddonian Editor. After careful deliberation and taking into account the time that the students have attended the College, the prizes were awarded as follows:—

Serious Verse—

Prize: "Night Sky," by T. Woodward, Ag. 4.

Commended: "The Piper," by Mary Capper, C. 1A.

"This was, undoubtedly, the most promising section. "The Piper" is a very good effort. All of the poems which have been published have merit.

Humorous Verse—

Prize: "Cautionary Tale," by Joan Savage, C. 3B.

Commended: "Giggling Gertie," by Joyce Taylor, C. 2A.

"The Bob's the Bob for a' That," by T. Woodward, Ag. 4.

The entries in this section were comparatively few as usual. The "Cautionary Tale" has been cleverly done, while "Giggling Gertie" is not far behind.

Serious Prose—

Prize: "India," by Nancy Melbourne, C. 3A.

Commended: "Haere Kite Moe Roa," by Heather Wynyard, C. 3A.

"This Auction Mart," by G. Sweetman, Acc. 3.

Most entries were received in this section, and the judges had a long task before them to pick out the best contributions.

Humorous Prose—

Prize: "Where—am—I?" by Rene Lewis, C. 2 Art.
"Over the Nose-Bag," by T. Woodward, Ag. 4.
Placed equal with the above.

Commended: "Tite Blot," by J. Cunningham, M.E. 1A.

There was a great dearth of entries in this section. The first two efforts were outstanding, with "The Blot"—a first-year contribution—commended.

☆ ☆ ☆

Both Rene Lewis, Com. 2 Art and T. Woodward, Ag. 4, are specially congratulated on the all-round excellence of the work which they have submitted in the various sections.

To those whose contributions were not published the Editor can only plead that no more space was available for literary work, and hope that they will try again next year.

Poetry . . .

NIGHT SKY

(Prize for Serious Verse.)

A murky stillness overshrouds the night,
So late released from undecided dusk
To deeper, more mysterious depths of sky,
Keeping eternal secrets from the eye,
Which with vain human arrogance aspires
To pierce th' impenetrable void

Black clouds, last remnant of the day's spent storm,
Come lowering like hordes of sombre beasts,
Ugly and threatening, to mar the deep
Night-blue, wherein there ever seems to sleep
A mystery divine, a power untapped
By force of human knowledge.

And where the setting sun has laid its gold,
There lingers yet a yellow, westward haze,
And whitened clouds all shredded by the breeze,
Soft-sighing through the rustling, restless trees:
A lone star pulsing out its light, intense
And aeon-old—a hope in troubled care.
—T. Woodward, Ag. 4.

CAUTIONARY TALE

(Prize for Humorous Verse.)

(Jane, who was concealed, and came to an untimely end.)

There was a little girl whose name was Jane,
Who went out walking in the rain,
The day was dull—the road was wet—
If she hadn't slipped, she'd be here yet!
With back so straight and head held high
She trained her eyes upon the sky;
She had high heels upon her shoes,
Her dress so tight—all different hues!
She did not look—she did not care,
But went on walking on the air;
A fatal step—and down she went!
A little boy on mischief bent—
A 'nana skin—a girl so prim—
All helped to make a funeral hymn!

—Joan Savage, C. 3B.

THE PIPER

(Highly Commended for Serious Prose.)

He wanders to the moor
Just as the setting sun
Tells people, rich and poor,
The golden day is done.

He sits on his lone seat,
Hidden amongst the grass,
And plays his music sweet
To lonely ones who pass.

His music fills the air—
So sweet with heather blooms—
Floats o'er the mountain bare,
Which through the grey mist looms.

And through the night he'll play
His song, both soft and sweet,
Until the break of day
Reveals his hidden seat.

—Mary Capper, C. 1A.

GIGGLING GERTIE

(Highly Commended for Humorous Verse.)

Gertie, though quite good at heart,
Would at once a-giggling start.
Quite often at a serious word,
Gertie's giggles would be heard.
Mother scolded, but in vain,
She just started off again.
The neighbours thought it was too bad,
For Gertie nearly drove them mad.
Gertie said that she would try
To stop her giggling—bye and bye—
But she didn't see the need,
Her mother's warnings yet to heed,
"Why should I stop it? Tell me pray,
For she would only laugh and say,
Giggling is quite good for you,"
Although she knew it was not true.
A magician though did chance to hear,
Her giggling, once when she was near.
"Hal Ho!" said he, "This girl I know,
Must be taught more manners" so,
Approaching her with angry glare,
He grabbed and caught hold of her hair.
When Gertie once got o'er her fright,
She giggled again with main and might.
"Cease," said he, with angry roar,
But Gertie giggled all the more.
Waved his wand, and then a bird,
The magician, without one more word,
Called a laughing jackass, hopped
To the wizard's feet and stopped,
And Gertie never more was seen,
The jackass was where she had been.
So children, cease your giggling ways,
Remember that it never pays
To giggle when there is no need,
And from this warning please take heed.
—Joyce Taylor, C. 2A.

NIGHT-FALL

When through the sky of darkening blue,
A shadow creeps of deeper hue,
And from the pine-trees dark and tall,
The morepork sends his haunting call,
We know that night has come to stay
Until it fades at break of day.
When Lady Moon awakes at last,
Then birds are wrapt in sleep so fast
They do not hear the wind's sad sigh
Which stirs the leaves and then does die,
Or see the night-moths whirl at play,
Until night fades at break of day.
—Muriel Leek, C. 2B.

THE BOB'S THE BOB FOR A' THAT

(Commended for Humorous Verse.)

The canny Scot sat on the wall;
Why sat he there and a' that?
He passed right by the ticket-stall,
He dared sit there for a' that,
For a' that and a' that,
He looks unwell and a' that;
The football match is just a game,
The bob's the bob for a' that.
What though the cauld wind fast doth ride,
And chill the bone, and a' that,
It's just as cauld, my lad, inside,
And a bob's a bob's for a' that;
For a' that and a' that,
The football match and a' that;
The auld brick wall, though mighty cauld,
Permits o' view and a' that.
—T. Woodward, Ag. 4.

HOW THEY BROUGHT THE GOOD NEWS

(MODERN STYLE)

I swung the propeller, and Morris and he
I taxied, Bert taxied, we taxied all three.
"Good speed!" cried the crowd as the wheel-stops
undrew;
"Speed!" echoed the air to us flying straight through;
Behind shut the hanger, the light sank to rest,
And into the midnight we roared out abreast.
Not a word to each other; we kept the great pace,
Prop. by prop, rev. by rev., never changing our place;
I turned in my seat and fixed everything tight,
Adjusted each lever, and set the stick right,
Re-olled the main spindle, pulled the throttle a bit,
Nor flew the less steadily Gipsy a whit.
And all I remember is—friends flocking round
As I sat on the wing with my feet on the ground,
And no voice but was praising this Gipsy of mine,
As I poured down my throat our last measure of
wine,
Which (the aero club voted by common consent),
Was no more than his due who brought good news
from Kent.
—J. Billings, E. 3B.

THE STREAM

Babble, babble, little stream
Over rocks and mosses green.
Sing to us your summer days
Of those golden summer days.
Sing to us of twilight hills,
Covered with sweet daffodils,
And of little daisies white,
Making such a pretty sight.
Sing to us of russet morn,
Brought to us by pearly dawn,
And of dewdrop-laden flowers
Making bright thy fresh green bowers.
Sing to us of autumn gold,
Of her colours bright, and bold,
Sing of green and red,
Which upon the ground are shed.
Babble, babble little stream,
Over rocks and mosses green.
Sing to us your mournful lays,
Of those cold, gaunt, winter days.
When Jack Frost, with fingers cold,
Freezes hard thy estuaries old,
When the hours are chasing, chasing,
Stopping thy cool floods from racing.
Sing to us when spring doth come,
Waking up the world so gum,
Sing of "Lady Spring" herself,
Coming with her fresh green wealth.
Sing to us of all the seasons,
For their coming give the reasons.
Tinkle on, oh little stream,
Over rocks, and mosses green.
—Rene Lewis, C. 2 Art.

WHAT'S IN A NAME?

There's nought in a name—we've oft heard it said,
And I own to that view, I've a leaning.
For names that describe one's appearance or trade
Have now no importance or meaning.
A Smith was a smith in the happy old days;
Mr. Taylor, of course, was a tailor;
Mr. Henn was admired for his beautiful lays;
Mr. Seaman had served as a sailor.
Mr. Big then was big; Mr. Little was little;
Mr. Weaver spun yarn and not fiction;
But now our names signify nothing at all,
Or land us in strange contradiction.

Mr. Husband has sworn he will marry no wife;
Mr. Truman is such a romancer;
Mr. Fiddler can't play you a note for his life;
Not a step knows our friend Mr. Dancer,
Jack Butcher brews beer, and Tom Brewer sells beef;
Mr. Spot does not look like a leopard;
Mr. Sheppard turned out a notorious thief;
Mr. Steel is an honest old shepherd.
—V. McLean.

WHAT IS IT?

What creeps around at dead of night
What eats the books and chews the mats
And gives us all a dreadful fright?
And strews the dining room with rats?
What sets up such a fearful din
When no one's up to let it in?
What chases birds and scares the boys
And licks the paint off all the toys?
What scares the thieves and fights the cats,
And cuddles down upon our hats?
What is it that a cane does fear?
While in its eye there shines a tear?
What is dearest in this world?
By master's grief to black doom hurled.
At master's joy, his gladness leaps,
A loyal friend, one always keeps.
What is it? Need you ask?
MY DOG!
—Joan Savage, C. 3B.

THE BOY WHO POKED TOO MUCH FUN

Johnny White, a small, fat lad,
Had a fault, 'twas very bad.
At everything he'd poke such fun,
At parents, teachers, everyone,
And day by day this habit grew
Until (this fact is sad but true),
His friends did leave him, one by one,
They couldn't stand his horrid fun.
When others sat entranced at school,
Young Johnny's wits were gathering wool,
And when the teacher's tale was done
And all the pupils looked quite gum,
Young Johnnie then, with glee, would shout,
And say the hero was a lout,
So spoiling quite the teacher's story
And robbing him of half his glory.
But one day when great fun he'd pulled,
And made it clear he'd never be fooled,
A rushing wind swept off his feet
That rascal, no one dared to meet.
And then, ah horrors! Where was he?
In vain they searched till time for tea.
And never to this day has John
Returned to school—he's really gone.
Oh, never poke that heedless fun
At those whose race is nearly run,
Or else you will, like Johnny White,
Be rushed completely out of sight!
—Rene Lewis, C. 2 Art.

AN OLD TALE RETOLD

A crow a piece of cheese espied,
And with it to a tree she hied,
To eat this dainty morsel sweet
She chose the spot for safe retreat.
A fox passing saw the cheese,
And pondered much, how he could seize
The dainty meal now in his sight,
And thus achieve his heart's delight.

A flatterer he chose to be,
And, to the crow up in the tree
In adoration, he expressed,
The wondrous beauties of her dress.

"Your voice I feel will well compare
With any bird that's in the air,
So, pray allow me, once, to hear
Those wondrous notes so fine and clear."

Thought she, "I'm sure he cannot know
How well I sing both high and low."
And so, his mind to set at rest,
She chose to sing her very best.

So first of all she preened her wings
Then opened wide her mouth to sing,
And down below the fox laughed loud
For the cheese had dropped down to the ground.

He snapped it up and walked away,
Leaving the crow with much dismay,
To ponder o'er the wily beast,
Who by his wits had won a feast.

To senseless ones, both young and old,
A lesson true I here unfold,
Be contented with your powers
And happy then will be your hours.

—Ester Moss, C. 1D.

THE FAIRIES

If I were a fairy small,
Into the clouds I'd fly
Light as the finest thistle-down,
Up to the starry sky,
I'd paint the little flowers,
When babes were in their beds,
Colouring with my magic brush
Their tiny little heads,
I'd look the wide world over
And find the sick and sad,
And take them thoughts of happiness
To make them all feel glad.

—M. Marwick, C. 1C.

WHO!

When you think the world is grey
And for right there seems no way,
When the things you do go wrong,
Fortune doesn't come along,
When you don't know what to do—
Do you know who's wrong?
It's you!

When bitterness or hardship claims
Yours among its victims' names,
Then's the time to sing and smile,
And help others o'er the stile.
Other folk are helpless, too,
Who can help them on?
Just you!

So when life's end draws near
And you know you've brought good cheer,
Just by being calm and kind,
Soothing someone's ruffled mind,
Who can find by being true
The greatest joy of life?
Why, you!

—Rene Lewis, C. 2 Art.

Prose

INDIA

(Prize for Serious Prose.)

India! The very name throbs with mystery and romance. History tells of Britain's growing claim on India as a member of the British Empire, but let us think of the India of the past, the India of the ancient Moghuls, the India of Shah Jehan, the India which existed before the intrusive European came to interfere and quarrel about her territory. Think of mystic India with her amazing buildings, strange customs, fierce tribesmen and veiled women.

India is a land of contrasts. Within its boundaries may be found vast lowlands under a scorching sun, and highlands clad in eternal snows; short mountain torrents roaring through deep gorges, and long winding rivers drifting between the low banks of the arid plain; a waterless desert and the wettest region in the world. Riches and poverty exist side by side; millions of Indians live in utter poverty, Princes of India are fabulously wealthy; there are palaces and mosques decorated with gold and precious gems; huddled nearby are pitiable hovels, from the occupiers of which came the wealth for the mighty temple's construction.

The successive waves of civilisation, which have swept India, have left behind silent proof of their past power—the fine buildings which are among the wonders of the modern world. Amid the dense forests of Central India, on the high wooded slopes of the Himalayas, may still be found small villages in which people live in almost exactly the same way as their ancestors of two thousand years ago, when they formed the entire population of India. The Aryans replaced these people in the main part of the country about four thousand years ago. The Buddhists and Jains followed the Aryans, and it is from their hands that there grew the oldest of India's marvellous buildings. The Buddhists and Jains in their turn gave place to the Brahmans. In the fifteenth century, the Mohammedans became the ruling power in India. When one remembers that all of these religions and types still hold a certain number, and when one also remembers the strict rules of caste which govern Indian life, it is easier to understand the immense problem which confronts any government in India.

Of the Moghuls, Shah Jehan caused the building of the most magnificent temples of India. The famous Taj Mahal was built in honour of his favourite wife. This mausoleum is of dazzling white marble. It is exquisitely designed and wonderfully constructed. To Shah Jehan goes the credit for the great Jama Musjid, in which is the Hall of Audience, its walls inlaid with hundreds of gems, representing flowers and birds. It bears the proud inscription: "If there is a heaven on earth, it is this! It is this!"

India's bazaars are almost as interesting as its palaces although they present a vastly different appeal from that of the dreaming peace of the palaces. Here one may see beautiful carpets which seem to be spun from the vivid hues of rainbow, vases of beaten brass from the tiny hamlets which cluster round the mighty Ganges, brilliantly dyed sheep and goatskins, and the long rows of the booths of the sweet-sellers. The doctors squat side by side with their wares of herbs, bright-coloured powders, roots, shells, and so forth; all have their uses and all are equally potent beyond them a glib-tongued doctor's explanations! Beyond them a snake-charmer holds his audience with his daring actions. He has a wild face and long

streaming black hair. He leaps before his snakes, shouting wildly. Another native thrums a drum, and the snake-charmer plays the shrill, maddening tune which denotes a performance of the kind. The snakes, taunted to fury, leap at him; the crowd shudders and shrinks away; but the snakes may bite him at will, for he, like all his sect, is immune to their poisoned and deadly fangs.

As the Muezzin's call to prayer rings over the silent city of temples, dark and deserted lanes, and mysterious houses, one sails away thinking, "Indeed this India is fascinating, compelling; it encourages, awes and envelops one, with its vivid contrasts, marvellous buildings, and strange people."

—Nancy Melbourne, C. 3A.

WHERE—AM—I!

(With apologies to "Erewhon.")

(Prize for Humorous Prose.)

Crash! Boom! Myriads of stars floated around me as I shot through space on a rocket (the latest invention of Monsieur Pontet). I was carried through the air for a long while, till I landed on a tuft of grass, which trembled gently when I fell upon it. This surprised me greatly, for in dear old England I had been considered no light weight! Imagine then my astonishment when on looking down I saw that my body had become decidedly smaller, while my hands were huge flabby pieces of flesh, each boasting one thumb but no fingers! I gave a long piercing cry (it was meant to be a gasp), as my head wobbled to and fro on a shred of skin, which, by a very long stretch of imagination might have been called a neck!

I had been walking along as fast as my poor, little, shortened stumps of legs could carry me (and I had great difficulty in seeing where I was going because, as I have said, my head was not very lightly screwed on—a statement which I do not wish to be misinterpreted!), when I tripped over a pebble, which swelled visibly as I fell, and there I remained, with my head dangling over one side, my legs on the other, kicking frantically.

Suddenly, there appeared from nowhere, swarms of tiny creatures, who rushed at me, questioning as to whence I came, and what was the matter. All I could answer was, "Oh, I am ill! The pain! Oh! I am dying!" This seemed to excite their wrath, and instead of receiving the sympathy I expected, hundreds of clubs came hurtling at me, each one bouncing off my head and on to the ground, until I was imprisoned behind a wall of clubs.

"Take the prisoner to the court," ordered a little "Mr. Importance," and immediately the clubs grew legs and marched me off! I knew already the place was queer and I expected queer things to happen, but this—oh, it took my breath away!

I was nearly suffocated, hemmed in by those creaking clubs, but my, by now feeble, shrieks were of no avail. I soon formed the opinion that my captors, whoever they were, were certainly not people of mercy. Without any warning there was a jolt, a tremendous crash, then brilliant lights dazzled me. I regained consciousness in response to a vigorous poking in my side, to find perspiration dripping from my head, which by now felt much like a roaring furnace. This time I really was ill.



A GLIMPSE OF THE COLLEGE LIBRARY.



THE MAIN WORKSHOP.

I was taken into the court though I could see but little of the spacious room called the Court of the Where-Am-I? Government. Around were forms covered with a rich red plush, and at one end of the room was a little pulpit-arrangement, at which sat the magistrates. The table also was covered with red plush, and on it reposed a large scroll. There was, too, a large brass instrument, attached to which was a cord where dangled a gold pencil. The jurymen wore suits of red, and skull caps of gold, and all of them sat chewing gold knobbed pencils.

"Order! Order!" yelled the magistrate, a plump little fellow with a large expanse of waistcoat. "What is the accusation?" he demanded. At once a fearful shouting began, and I gasped when I heard, "The prisoner is accused of breaking one of the strictest rules of Where-Am-I?—he is ill!" In less than a second I was encircled by a swarming mass of creatures, afterwards found to be the jury. "Order, order!" yelled the pompous little man again, and when there was silence enough for him to be heard, he continued, "Dismiss the court; there will be no trial. The prisoner will pay the penalty and will be put in the underground vault to die. There is no pardon for such a crime!" I shuddered, but was too weak and amazed to protest. Once more there was a rush for the doorway and when the jury returned, they rubbed their hands gleefully as they looked at me. Then one of their number gave a loud scream. "Look! Look!" he cried, "The silver chair has gone!" (I might as well say that this chair was a fantastic piece of silver which looked as if it had been banged hard until there was a hollow to sit in.) "We must catch the thief, poor fellow," they cried, "he must be examined at once," and out they went. When they came in, they had among them, a crafty looking specimen of humanity. His hair was matted, his face greasy and sallow, his eyes dark and shifty. They had caught him, outside the court, in the act of stuffing the chair in his pocket! Yet it was quite large enough for a Where-Am-I? dweller to sit in!

He was placed on a table and the large brass instrument was placed over him. He struggled and screamed but they held him till soon his yells subsided, but just as they began to look satisfied with the progress of his "cure," he pressed the under part of the machine with his knee and—it exploded! When I came to my senses I was by an old brick wall outside our property in London, and I do not know to this day whether my experience in Where-Am-I? was a dream, or perhaps you can tell me—Where—was—I?

☆☆☆

(With apologies to Milton.)

In schoolroom forlorn,
'Mongst dusty desks and sighs and complications.
And when the bell rings;
Hence, loathed Impositions,
Of Misery and sad misfortune born
Find out some other form,
Where brooding Detention spreads his jealous
wings,
They are but freed from books and lessons
—Multiplications and divisions—
To meet the cry, "Talking? Name and form."

—Nancy Melbourne, C. 2A.

"HAERE KITE MOE ROA"

(FAREWELL.)

(Highly Commended for Serious Prose.)

Dusk had fallen. A long ragged cloud floated before the moon; there was a mournful hoot from a wandering owl, then all the bush lay still, as if to watch the better the parting scene that was taking place within its sheltering gloom. Poi, Princess of all the Waikato tribes, was bidding farewell and god-speed to her lover, Tawene.

Long had they lingered together there, but now the moment for parting had come. From the busy encampment below them, the red eyes of fires winked up at them as they stood on the hillside in the purpling evening light.

"Haere kite moe roa—" the words of the song of farewell floated clearly up on the twilight air.

Poi turned to her companion, her brown eyes filled with anguish.

"It is farewell now, my Tawene! You must go. See, the warriors grow impatient for your return!" As she spoke she pointed downwards to the massed warriors as they surged aimlessly about the pah.

"It is so. But, I shall return to you with many slaves and much flax," came the proud boast, "so do not grieve for me, little Poi, soon, soon, I shall return. Until then—farewell!"

With one embrace Tawene strode off into the dusk; Poi, with the good-bye smile still lingering about her lips, watched his straight, lithe figure sadly, until it was swallowed up in the dusk. Then she threw herself down and wept.

Slowly and sadly the chant began in the village. Gradually it quickened, growing louder and louder until it seemed that the valley must split asunder with the echoes. Fiercely the shouting grew—there was a wild contorting of faces and rolling of eyes, stamping of feet and throwing about of arms. Suddenly, headed by Tawene, the warriors, with one accord, swept through the village to the river's edge.

Seizing the sides of the carved war-canoes, they threw all their strength into the gigantic task of launching them. Straining muscles protruded, quivering protestingly against this inhuman effort. *So—wish—!* The fantastic prow of the first canoe met the smoothly flowing water of the Waikato River, and an outspread fan of foam curled proudly away before it. Almost immediately each of the other canoes met the water, and the expedition had begun. From the Waipa, four more canoes swept down to join the main fleet. One by one they faded out of sight and again the listening hills heard the song of farewell—

"Haere kite moe roa."

Alas, for Tawene's proud boast. Many, many moons waxed and waned before into the departing village the figure of the hill-watcher ran.

"A canoe! A canoe! Tawene's canoe is coming! Come, greet the victorious Tawene!"

The shout spread like wildfire. Poi, down in the swamp cutting flax for mats, heard the wild shouts of rejoicing. Joy lent wings to her feet, as she sped through the cascades of fern fronds that skirted the bush path to the village. The great canoe was beached before she arrived.

"Where is Tawene? Oh, tell me quickly, where is he?" she demanded breathlessly of those on the outskirts of the crowd.

"Hush, foolish one, that we may hear what the old tohunga, Piri the wise, has to tell us of it all," was the only response.

Slowly, the noble old Maori moved up the steps to the punga platform. Facing the crowd of eager listeners the seamed, wrinkled old face, with its kindly

eyes, searched pityingly for Poi. He found her. Pure joy shone from her big brown eyes, and with nervously shaking fingers she smoothed the ebony satin platts that framed her face.

"My people," the old tohunga began, "there has come to us news of a great victory—greater than ever has been before because there has been no bloodshed—"

There was a deep-breathed shout from the assembly. "—and Tawene sends you all his greetings and bids you prepare a great bridal feast for him, when this moon has waned and the next has waxed to its height." The old lips faltered and the old eyes gazed up at the mountain to avoid seeing the unbelieving joy in Poi's gaze and the smiles that were cast at her by those who stood near her, and the nudges they gave her. Only the occupants of the canoe stood as if turned to stone.

"The tribes of the Waikato are united for ever with those of the Urewera," he continued at last, "for Tawene will bring with him on his homecoming the beautiful maiden, Moana, who is the desire of every chief in this Land of the Long White Cloud—as his bride!"

An uneasy breeze broke the silence. The moon waned and waxed to its full height, and true to this promise Tawene returned, bringing with him his beautiful bride, Spellbound by her beauty the people could only gaze in wonder at her.

Far into the night the revelry continued, until the dawning. With the first rays of the sun the hills heard no more rejoicing.

Down in the village Tawene and the tohunga alone were not yet departed to sleep. Over the embers of a huge fire they talked and talked, endlessly and politely.

"—and Poi?" inquired Tawene at last, "how is it that I have not seen her?"

"Come," said the tohunga.

Up the steep mountain path they climbed in silence, until they reached the slope overlooking the village where Poi had hidden Tawene farewell.

Pointing to a freshly dug grave, one on which the flag flowers had not yet withered, the old tohunga said:

"There is Poi. She left you this message, 'Haere kite moe roa.'"
—Heather Wynyard, C. 3A.

THIS AUCTION MART

(Commended for Serious Prose.)

"The world is but an Auction Mart.
Where 'Tis not an Auctioneer;
Vain pleasure gets an 'easy start,'
True happiness is dear,"
—Bracken.

Shakespeare once compared the world to a stage, all within being the players; but, to my mind, the above quotation of Thomas Bracken more aptly describes our lives. "The world is but an Auction Mart." Some of us have an inordinately high value, some an equally low one. All are up for show before the rest of the world, and all await the stroke of the hammer of Destiny, with the voice of the auctioneer saying, "Go, and some spend their entire lives in raising it. Again, dear," accordingly to that "true happiness is hammer at some fabulous price. He does not name the price. No mercenary value has happiness, for some pay for it with their youth, others with age. Then makes one wonder whether the price is unattainable. This of the joys relinquished. But this was not the intention, for the price we pay for real happiness, is life itself. A close acquaintance to George Bernard

Shaw's maxim, "Economy is the art of making the most of life"; this is the price demanded by the great Auctioneer. Often, with happiness ready for the purchase, life is squandered and the Auctioneer's hammer falls at a low price. He who possesses the right of purchase, is often able to be likened to a ship with an anchor cast, preventing its sailing.

And so through Life we pass, awaiting the time when the great Auctioneer will set us up for display, neatly ticketed, in his hand, not our monetary value, but rather with our spiritual worth, patiently waiting the time when He in His great wisdom will let fall His hammer of Judgment with a "going, going, gone!"
—A.G. Sweetman, Acc. 3.

SUNRISE

"Cradled in sapphire mist Morn's sunlit deep
Wakes the whole world with laughter, darkness past."
—Fox.

The first rays of the sun lift their rosy fingers above the grey of the unawakened dawn, sending forth an effulgent radiance. It is magic, morn. The colours—rose, gold, red—are blended with perfect harmony. God's hand can be seen in this beautiful work, this golden ball of fire shining down on an ancient Aedra, a modern skyscraper, or a golden bed of daffodils.

And yet, though it seems so strange, the world upon which King Sol shines is an ungrateful world. There are many who do not watch the glory of that most beautiful of all pictures, "The Sunrise." And there are many who spend an afternoon looking at paintings of the sunrise, but who are absent when the real beauty is at hand to be seen. No artist can infuse into his pictures on a material canvas what God has put into his. And yet the heavenly sunrise is soon obliterated by dull grey clouds, or pure white ones, which, though they be beautiful, do not inspire noble thoughts as do the coloured ones. Noble thoughts—yes, ecstasies of joy, exhilaration, love. Let us leave the material world, and watch, and drink in the magnificence of the dawning.
—Kathleen Richards, C. 3B.

THE BLOT

(Commended for Humorous Prose.)

It was while dipping his pen to write the last word of his homework that he made it. Smith was a new boy, with a timid disposition and a leaky pen. His blot was a fine specimen of its type, in size as big as a penny, lying on the bottom of his homework. He searched frantically for blotting-paper; he ransacked the house, but no blotting-paper could be found. He raced to the nearest stationers and returned with a large, white sheet. Alas! it was too late. The blot had dried.

He retired early that night without tea or supper, but it was not until the early hours of morning that he fell into a troubled sleep. He dreamt about being drowned in blots, hundreds of them, his form-master watching and laughing. In the morning he was a piteous sight, all appearances suggesting a hectic night in the playground that day he asked a friend about his form-master. His friend's description made him imagine impositions, canings and suspensions.

Upon entering school each boy passed in his homework to the master, who stood solemnly by his table. Smith waited calmly for the master to pick up the ill-fated book. The book was picked up and opened, by the master, who in a good-natured voice said, "Smith, nine and a half out of ten, a half-mark lost through a blot."

And the moral of this story is—Dash it! I dropped a blot on the moral.
—J. Cunningham, M.E. 1A.

OVER THE NOSE-BAG

(Played First Equal for Humorous Prose.)

"I am feeling very savage to-day, Polly. It is not often that the quantity of my temper is thus disturbed (although I assure you I have spirit left yet), but the folly of man—ah, Polly, the folly and wickedness of man. It was only the other day, when I was so amused to stumble a little (my knees are not as supple as they were), that my master abused me most fearfully, and employed terms in my description for which we in our horse-talk have no equivalents. This is the man I have heard speak of life after death, in most hopeful terms. We, of course, in our superior wisdom know that only horses will after-hours repair to those Ethereal Pastures—for what appreciation could a man show for even the faintest of herbage?"

Place not your trust in men, Polly. Their depraved tastes fill me with abhorrence. Have you never wondered what happens to the corpses of our poor, departed comrades—what has happened to poor Jimmy, to old Noddy, who died last week of the pox. I have it on the best authority, Polly, that such bodies are minced—minced, Polly, and sealed in cans, to satisfy the horrible taste of man.

"Humph! This, Polly, is very musty chaff. The master must have bought it cheap. You will be amused when I tell you of what I saw yesterday. As I was standing by the corner, slowly chewing this musty mixture, and reflecting on the injustice of this world, I noticed a rather elderly-looking man, very pompous, dressed in black with a conspicuous chain dangling from his pocket, and swinging one of those sticks in a particularly detestable manner. I was eyeing him carefully—I can yet see quite clearly from this one eye, Polly—when something very amusing happened.

You know those peculiar cases which men detach from the yellow, sausage-shaped fruit, on which they love to gorge—this, Polly, is very musty chaff. I noticed a rather elderly-looking man, very pompous, dressed in black with a conspicuous chain dangling from his pocket, and swinging one of those sticks in a particularly detestable manner. I was eyeing him carefully—I can yet see quite clearly from this one eye, Polly—when something very amusing happened. You know those peculiar cases which men detach from the yellow, sausage-shaped fruit, on which they love to gorge—I can never see one without a tear rolling from my eye; it reminds me so of old Noddy. Well, one of those jackets was placed in a spot exactly suitable for the hoof of this man to descend upon it—this is a foul meal for one to mouth, Polly—and it did! I shall never forget the look on his face when his legs shot out in one direction and his stick in the other. But what was even more comical was to see his expression as he sat in a small pool—you will remember, Polly, it had been raining but a short time previously—and realised that the moisture was seeping into those appendages which men seem to find necessary to dangle from their nether limbs. Well—

Just look at that racehorse, Polly. No, look the other way! Don't let it see you staring at it! Doesn't it think it's somebody! Just because it's shiny and all groomed up. Another sign of man's iniquity. There, it's gone. Polly, when you have reached my age, you will realise the deceit, the empty vanity of man's nature. You will— Now, I declare, you've gone to sleep! Well, there are worse things in life than sleep, I think I'll take forty winks myself.
—F. Woodward, Ag. 4.

THE GULLITINE

The cold greyness of the dawn greeted but dully on the bloodied blade, which hung suspended from a grim wooden structure. Gradually about the base of the scaffold there assembled a crowd of eager, dirty, half-starved citizens and citizenesses. A rough wooden cart, in which a dozen or more unfortunate stood, swayed its difficult way through the yelling assembly, to the machine of death. The man and grades of aristocracy were represented by the prisoners; but among these half-crazed revolutionaries, rank and age counted not, for the occupants were aristocrats and as such must die. There they stood in powdered wigs,

lace-ruffled throats, satin waistcoats, velvet breeches, buckled shoes, and many other fine trimmings, as the crowd whose jaunty, cockaded caps, ragged shirts, dirty, torn trousers, and chilled bare feet, betrayed the coldness of the cries of liberty and equality, jeered at and reviled those who stood in upright haughtiness.

The blades falls and the shrieking of the rabble rises in harsh crescendo; the dripping blood stains the unpainted plank, yet the deeds of wanton cruelty darker stain the souls of men. Another, one of noble birth, stands waiting his doom; his forehead is damp with cold drops of sweat; his eyes are hard and disdainful, yet deep within lurks a grim dread of death; his proud nostrils twitch; and his somewhat thin lips form a firm line, past which no murmur nor pleading slips. A stern arrogant lady in her silks and satins dies before him, and then his once proud head rolls off and then lies still and staring, upon the repulsive heap.

A cart laden with its gruesome cargo trundles slowly through the gloating, dispersing crowd, as the sun falls, silhouetting the darkened blade against the heavens. Darker nights for the partisans in the revolution were yet to shroud the once arrogant, courtly, frivolous France before that blood-soaked country would swallow the bitter taste of dark red blood and again relish the sweet joys of peace, prosperity and supreme contentment once more.
—N. Whaley, Acc. 3.

FARMER BROWN VISITS THE ZOO

It was a bright sunny Sunday afternoon when Farmer Brown and his wife, who were in town for a holiday, set out to visit the zoo. As this was his first visit, the farmer was very anxious to see all the animals.

"There may be some I could get for my farm," he confided to his wife. "I wouldn't have to feed a camel as much as a horse, and in the dry weather it might come in handy."

At the lion's cage he caused a titter among the people standing near, by asking a cheeky-looking lad if that noble "King of the Jungle" was fierce.

"He hasn't bitten me yet," came the reply. "Farmer Brown's disappointment at not being able to find the camel soon disappeared when he came to the monkey's cage. He took a great fancy to the clever little animals. He declared that they were 'just like some human beings.'"

But it was here, alas, that the disaster occurred. Unable to tear himself away, he took to teasing the occupants with his new umbrella. One little monkey, bent on mischief, proved far smarter than the farmer. It grabbed the umbrella from the startled man's hand. By the time he recovered from the shock, the umbrella of which he had been so proud was no more like an umbrella than anything else!

Suddenly, the monkey threw the battered frame of the umbrella through the bars of the cage. The former sadly bent to pick it up. But the monkey was not yet satisfied with his revenge. Once more the small paw shot out between the bars, and Mr. Brown's hat was within the cage.

This last act aroused the farmer's temper. Rushing over to a keeper standing by, he poured some very uncomplimentary remarks into the astonished man's ears. He received no sympathy from the keeper, however. Mr. Brown was merely told that unless he had been tormenting the monkey in some way, it would not have attempted to take his belongings. Unfortunately this could not be denied. It was a sadder and wiser farmer who returned hatless and umbrellaless to the boarding house half an hour later, quite cured of any desire that he might have had of introducing any "peevy foreign creature" upon his farm.
—Joyce Taylor, C. 2A.

THE OLD HOUSE

The old house stood basking in the rays of the late afternoon sun, and dreaming of the past. It often did that when the sun shone on the old stone bench, for that reminded the old house of Mistress Rosemary. She liked to sit there, the old house remembered, because she could see the little school-house in the valley best from there. When school ended the master would come striding up the hill to join his bride, and together they would watch the gulls circling in the bay, and make plans for the future. These plans concerned the house and the garden, and materialised one by one, till the little home was bright and cosy, the garden gay with blossoms, and the schoolmaster's bride was content.

The old house was proud of its garden in the days when Mistress Rosemary tended it; it had been the prettiest in the settlement. Its borders were of lavender and night-scented stock; daffodils flourished there, and primroses, but the pansies had been Mistress Rosemary's favourites. Such pansies too! Big and velvety, golden, purple and brown. Mistress Rosemary would steal out softly in the early morning to gather the violets, large bunches of them, purple and white, and the old house remembered how she would bury her face in their deavy fragrance, as she sat on the old stone bench to fill her flower bowls.

Then baby Paul was born. How wonderful had been the day when his feet had first toddled unaided across the floor. One day he fell ill, and footsteps had been soft and voices hushed till the glad day when he was pronounced out of danger, and the old house was happy once more.

Paul was six when the event occurred which the old house remembered best. It had been a hot, windless day in midsummer when the Maoris attacked the settlement. Unfortunately the little home on the hill was apart from the rest, and the inmates had not had time to join the majority of settlers and seek shelter in the church. They had barely time to barricade the door and arm themselves, before the raiders were upon them. The hours which followed were terrible for the white settlers. Bullets flew and brown figures rushed at the dwelling, with fierce cries and upraised weapons. It would have gone hard with the little party, who had scanty ammunition, if help had not come in the shape of a friendly Maori chief and his warriors.

That was many years ago and now the old house stood forsaken and forlorn. The flower beds, which Mistress Rosemary had tended so carefully, and the paths, were choked with weeds. A few jonquils and narcissi were the only evidence of the garden, where blossoms had once rioted in such gay profusion. The old stone bench was moss-covered and chipped, while the little gate, which had once been gay with green groaning with every gust of wind. Many of the window frames were without panes, and the wind flung leaves into the dusty rooms.

The sun sank out of sight behind the hills and the garden became gradually darker. The clematis, clinging to the broken verandah posts, rustled gently in the wind, throwing grotesque shadows into the ghosts of vanished years, to keep it company. Its day was over; the old house was content.

—Margaret Wilson, C. 3B.

★ ☆ ★

A boy with a cold in his nose,
Was playing at touching his toes,
It was a good wheeze,
Till he happened to sneeze,
And it blew him clean out of his clothes.

THE FIRE

A few grey wisps of smoke arose from one of the windows of an old warehouse, and the alarm was quickly given.

With a magnificent broadside, the fire-engine (an ancient Ford splashed liberally with red paint, to be exact), skated round the corner at the incredible speed of ten miles per hour. Manned by firemen, who looked as old as she was, Lizzie presented a striking picture as she sped up to the fire. As she reached the building the fireman, who was driving, jammed on the brakes with all his force. Usually Lizzie's brakes had little effect, but this time she stopped immediately. Strange to relate, however, the firemen did not. Not expecting such a sudden stop, they shot into the air as though propelled by rockets, and describing a somersault a trapeze artist would have envied, made a painfully neat three-point landing, to the accompaniment of clapping and cheering.

The famous "hose of a hundred leaks" was dragged from the car and fixed to the fire-plug. Amid the cheering of the excited onlookers, the water gushed forth from the nozzle, but more seemed to come from the leaks, onlookers thought as they retreated from the hose.

Feeling very important, a fireman mounted a rickety step-ladder, and upon breaking the window with his hatchet, climbed laboriously in, dragging the hose after him. Upon seeing an old mattress smouldering in the corner of the room, he turned the hose on to it, and when he was finished, the room was literally flooded.

Flushing with pleasure, the three ancient firemen climbed into Lizzie (who started at the first turn of the crank!) and drove off.

—L. Stewart, Typo. I.

A MEMORY

Thoughts that have arisen in my wanderings round this, the Queen City, have made me wonder what foreigners have thought of our Pacific Island level. Oft have we been complimented on our bush scenery, but much to the disgust of true lovers of the outdoors, this, our pride and joy, is fast disappearing.

One place that returns to my mind when I talk of the bush of our country, is Wilton's Bush in Wellington. It is situated just outside the city, in the suburb of Wadestown, and is a happy hunting ground for the naturalist, photographer and artist. In and out of this fairyland of beauty a tiny stream runs joyously along.

Here we find all manner of birds, of native trees and flowers that belong to New Zealand alone. The steep hill leads the adventurous climber to the secret sanctuary of the delicate starry clematis. It is in the form of a natural grotto. A silvery waterfall plays just beneath to entrance the beauty lover and provokes in the artist the irresistible desire to have his canvas and palette beside him and to try to reproduce some of the beauty before him. Once we thrilled to the liquid melody that flowed from the tuft's throat, but the bird was artfully hidden from human sight.

The little wax-eyes flutter timorously near the loitering wanderer, but gaining confidence they come right up and twitter expectantly as they see the crumbs being thrown to them. The sun throws golden rays through the thick foliage, and paints all the green of the trees into that mystic tint of green and gold mingled into one.

Pat Malone, C. 3B.

THE SEDDONIAN



LINOCUTS

—By Students of the Printing Department

THE LAGOON

The golden rosy sun of morning lifts itself indolently from the delicately tinted mists that veil its rising, and soars above into the azure, melting the morning mists in its radiance. Sunshine and harmony brood on the glassy-surfaced lagoon, which stretches out to the limitless reef of coral.

A couple of light native skiffs skim the water into tiny ripples, and pass on. They seem like graceful birds wrought in flush and gold. . . . Herds of unseen birds sing gay notes, while a few incalculative monkeys peer from the tops of tall coco-nut palms. Then—as if foreboding ill, all the noise and chatter ceases. . . . Out in the lagoon, ripples roll across one particular spot. Soon a dark shape rises to the surface. The monster of the lagoon!

Bubbling and splashing, it thrashes its way along. The rows of ripples increase, and, as if in a frenzy, the monster twists and turns, leaps and plunges. In a while, it hurls itself down, but again rises, to bask in the sunshine, till, with a leap and a twist, it dives to the calm sea bed.

The twitter of the birds, and the chatter of the monkeys return, for the dreaded monster has dived to its haunts.

—Nancy Harpin, C. 1B.

CASTLES IN THE AIR

This phrase brings to mind memory of dawn just breaking above snow-covered country, the widening blue arch of heaven and all the earth fragrant with the million scents of the early morning.

Castles in the air themselves are flimsy and ephemeral as a rose-tinted cloud. Fate reaches out and takes our castle in a ruthless grasp. Oh! the bitter disappointment of that moment of realisation!

But soon we rise again to the rosiest of rosy dreams. Filled with new-born resolve, we think of that trip abroad, of the hour of our presentation. Then every hour is one of exquisite haze, silver perfection of moonlight, every wind a bugle call to endeavour, to happiness, to life's challenge, its mystery, music and romance!

Then once more the beautiful dream slips away, and though it has seemed very real, like dew, it vanishes. So Life goes on—dreams and castles. I wonder how many of our dreams we shall realise, how many of our castles we shall see?

—Pat Malone, C. 3B.

ON STAYING IN BED

It is eight o'clock on Sunday morning and I have just wakened from that Land of Dreams—with a little help from the milkman. Why should I blame him at any rate? I have to drink his milk.

For a while I lie in bed and look through the window at the clear blue sky. Then conscience begins to call. "Get up and go to church," it says. O mightiness how could you call me from a warm bed to a cold bath, and an uncomfortable collar. Satan says, "You went last week." Evil prevails and I stay in bed.

Confound it! Brown is starting to mow his lawn. Why can't you do it at some respectable hour. Your wife? Confound your wife. Ah! He has stopped. No he hasn't, he's cutting his hedge now. "Dash it, man, can't you stop for half an hour? Don't you know that I like to stay in bed until nine o'clock on Sunday?"

What's that? Confound those cats! Can't they go somewhere else if they want to fight? There goes the church bell now. It's too late to go to church and I cannot go to sleep. Brown's still going. I think I will get up and help him cut his hedges. Confound you, Brown; confound your wife; confound your hedge; confound those cats; confound everything.

I will get up.

—R. Hall, E. 2B.

THE BOAT RACE

The bed-clothes heave—the sleeper is turning in her bed. She smuggles down again comfortably and appears to be at peace with the world. But it is not to be. Again she stirs, stretches and wakes up. She gazes leisurely round the room until her eye alights on a small clock ticking away the minutes quite unconcernedly.

With a bound she is out of bed and tearing along the passage hoping that there will not be a hold-up at the bath-room door. As she passes there is heard a murmur of "7.20" and something about a ferry. It sounds very dispirited but it must be important for it causes the maiden to hurry on without any further dilly-dallying.

The sound of a tap turned on at full, splashing, and comments on the heat (or lack of it) of the water are heard, and then the door bangs. A whirlwind appears and for the next ten minutes confusion is rife in the bedroom. Presently this also ceases and the maiden emerges clad for the fray. As she departs in quest of her breakfast she audibly wonders whether she will have time for her breakfast, and then debates whether she will clean her shoes or have another piece of toast!!!

At last she is ready for the road. A hasty glance at the clock, a quick grab in the direction of her case, a hurried "good-bye," and the sound of her footsteps dies away.

She careers down the road (thank goodness it is down-hill) followed by the sympathetic grins of housewives standing at their garden gates. Then up the wharf—Oh, why is it so long?

A peremptory buzz galvanizes her into still more strenuous action. Mere hurrying is not sufficient—an heroic spurt is called for. She races up to the ticket collector—"Hurry up, you're late," he superfluously remarks. "I know," she gasps, and flies on.

Ah! the captain sees her and the gangway is not yet raised. She staggers on board and collapses on to the nearest seat with a "done it." What matter if she's last on, she's caught the boat! Is it worth it? Of course it is.

Her fellow travellers take little or no notice of her or maybe a few, remembering past experiences, smile. Soon the rapid beating of her heart subsides and she is able once more to take an interest in life. "I will not have a rush like this again," she vows.

"To-morrow I will get up early." But will she?

—B.M.O.

WATTLE

The word suggests to me two colours—green and gold—green, the green of all growing plants; yellow, the golden colour that is of the sunshine and the melodious canaries. Wattle is as much the herald of spring as the daffodil. Are they akin, I wonder? How many suburban lawns know them both, the graceful, mysterious wattle and the sturdy, gleeful daffodil. Zephyrus caress the wattle—little breeze, soft as velvet, elusive—play around the wattle flowers and foliage. Big blustering winds blow, too, and dislodge the fluffy flower-children from their parent. Perhaps even prettier than the wattle in bloom is the wattle even in embryo—not hidden, like the shy violets, but beseeching the sunshine to touch it with its fairy wand. Would that life were modelled on the wattle's career. Would that life were modelled on the sun, throwing ample—throwing out its arms to the sun, throwing off trouble, making some heart glow with its beauty.

Let us, too strive after something—not outward beauty, like the wattle—the wantonly waving wattle—but after inward beauty, that of the soul.

—Kathleen Richards, C. 3B.

There was a young man, Mr. Howard,
Who thought he would make a good steward,
But he fell a big "top,"
When the soup he did stop,
And covered himself with the fluid.

A CLASS LITERARY EFFORT

After two months of record-breaking weather—number of days in which rain fell in June, and total rainfall in July—August 1st broke beautifully fine, and sports arranged for that afternoon were eagerly looked forward to.

The following poem inspired by "A Bit of Colour"—New Zealand School Journal, Classes V, VI, August, 1935,—was the result of the combined effort of the class on that morning:—

COLOURS GAY.

Blue was the morn; all things were bright—
Twas winter less than spring.
A keen South wind blew o'er the land
And freshened everything.

Blue was the sky; the fields were green,
The hills, the woods, the trees—
Distance and foreground—all the scene
Was gay in this keen breeze.

Anemones red and violets blue,
And golden wattle blooms;
Bright colours did the ladies wear,
And yellow marked our plumes.

A wide expanse of playing field—
And lo! A word goes round
That recreation there will be—
Was heard with joyful sound.

'Midst morning work of lessons dull
We whistled inwardly,
And in our hearts we wore
A thought of happy glee.

And often, when the days are drear
I see them in a dream
With jaunty air, and colours gay,
The green and gold supreme.

A. I.A. August, 1, 1935.

☆☆☆

ON THIS DETENTION

(With apologies to Milton.)

When I consider how the hours slip by
Ere half my work is done in this cold room,
And that a cleaner armed with his broom
Sweeps clean with that same broom a room
nearby.

I try to serve my master and present
My lone detention lest he doth mark my hide—
Doth he expect us on tables to reside,
I harshly ask: But dare not to resent.

That master soon replies, are you to catch
To-sight's last boat, p'rhaps you here must sleep?
Yes, indeed! Upon these tables cold and hard.

Though your frame be cramped, do you some sleep may
snatch;
But then, into my mind a thought doth seep,
An appointment—Boys! The party's marred!

—N. Whaley, Acc. 3.

BOYS' LITERARY CLUB NOTES

Captain Smyth Hero of the piece
1st Mate Jensen Villain
2nd Mate Whaley Villain
3rd Mate Sweetman Villain

And some of the motley crew—

S. Ellis F. Luckens
W. L. Hirst T. E. Woodward
etc., etc.

Rest awhile, gentle reader, and cast your pensive gaze upon Room 39, where is found a circle which is seen to be deeply absorbed in strange occupations. To the tune of the steady mastication of the various lunches, boys are heard often to assume the characters of winsome maidens, and villainous-visaged villains. The following play of one scene (mercifully) will dispel all doubts as to whether insanity exists amongst members of the Literary Club.

The scene is laid in a typical school-room, and, as the curtain rises, the Captain of Ye Clubbe Litterie, is seen to pace the deck—Awfully sorry, I mean the floor. Enter the Chief Villain obviously so from his villainous looking features. As he sinks furtively into the room, the Hero turns quickly towards him.

1st V.: Ah!

Hero: Ah!

1st V.: Here, I say, you can't say that. Why, I have just said it. Dash it all, man, play the game.

Hero: I won't have you taking any liberties here. Please remember you are only one of the villains, while I am the hero.

1st V. (grumbling): Righto.

Hero: Sir.

1st V. (grudgingly): Sir.

Hero: Well, now that you are here, you might as well sound ALL HANDS ON DECK.

1st V.: That wouldn't be a bad idea. (Turns left and calls.) ALL HANDS ON DECK. (In rush all of the motley crew.)

Hero: Quiet, there! I don't want any mutinous talk amongst you lubbers. Take your places orderly and answer the roll. Chief Villain, Mr. Secretary please read the roll. (The 1st Villain does so and comes to the names of the 2nd Villain and the 3rd. He calls them twice but there is no response.)

Hero (frowning): Where are the other Villains, or Secretaries? I won't have any of these late comings in this club. Unless they turn up immediately I shall severely chastise them. Ah, here they are. What have you to say for yourselves?

2nd V.: Bon Jaw, Mashure.

3rd V.: Huh!

Hero: Go to your places. Now we will commence our studies. Undoubtedly BETWEEN THE SOUP AND THE SAVOURY, THE MAN IN THE BOWLER HAT is not the MASTER OF THE HOUSE.

1st V.: No. Usually he is THE PRINCE WHO WAS A PIPER.

Hero: Silence! If you don't, I'll put you FIVE BIRDS in A CAGE.

Well, let me tell you this, if you do you will spend a NIGHT AT AN INN.

2nd V.: So you'd inform on us. A BETRAYAL in fact. Hero: Silence there; I am the skipper of this ship, and if any of you want to mutiny, say the word and I will put SQUARE PEGS in your PATCH WORK QUILT type of throat. Now to continue again.

THE FLIGHT OF THE QUEEN has made THE CONSTANT LOVER a POACHER and ST. SIMONE STYLITES has discovered HOW THE WEATHER IS MADE.

3rd V.: Most like THE PRICE OF COAL had gone up.
Hero: Mutiny! I suppose that you will say that THE RETURN OF THE PRODIGAL has made THE YOUNG PERSIAN IN PINK jump off THE TOWER OF BABEL, thus upsetting AN APPLE CART OF ANDROCLES AND THE LION. Since none of you can behave yourselves, we will go on to our debate, which is—

1st V.: Whether Machinery is Beneficial to the Progress of Man.

Hero: Thank you. Now, I ask you, is it?

2nd V.: It is not.

3rd V.: It is so.

Hero: Right. Now we have decided that question, we can go on to more important things. There will be a meeting of the LITERARY CLUB every MONDAY and every THURSDAY.

2nd V.: And I suppose when THE BOY COMES HOME MR. PIM PASSES BY.

Hero: Mutiny! Avast there, you lubbers!

(Just at that moment the bell goes and the Hero is lost from view—the villains creep furtively from the stage, and the curtain mercifully drops on the scene.)

The above monstrosity was concocted by the first two villains after a steady perusal of DEADWOOD DICK and BARNACLE BILL. It seems also needless to remind the readers that no offence has been intended in any way, but I suppose it would be as well to do so.

—Combined effort of Ian Jensen and Gordon Sweetman.

GIRLS' LITERARY CLUB

The Girls' Literary Club, consisting of twenty-seven members, meets in Room 40 at 12.45 on Wednesdays, and in the eighth period on Thursdays. The work of the club comprises the writing of serious and humorous prose and verse, and the reporting of school news. Many interesting and varied competitions are arranged by Miss Henderson, which include general knowledge questions, books, authors, quotations, etc., for which points are awarded. Writers who have come into the study of the above include Galsworthy, A. A. Milne, Hilaire Belloc, Broster, Garnet, Dickens, Scott and Thackeray.

In lighter vein we have enjoyed verses and cartoons from Punch; also "Cautionary Tales," "Humorous Rhymes," "Humour of History," and "Kings and Queens."

The next study to be this year's school concert, the Gilbert and Sullivan Opera, "The Mikado."

Joan Savage, a former member of the club, has had one big article—on the Girl Guide movement—published in a country newspaper, and has had several paragraphs and verses accepted, too. We congratulate her and wish her further successes.

The result of the half-yearly competition, prizes being awarded for the most points, are as follows:—Seniors, June Greenwood, Gladys MacPherson; Juniors, Nancy Harpin.

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There was a young man of Malacca,
Who always liked chewing tobacco
Till one day through his greed,
He swallowed his weed,
And was carried off dead on a platter.

QUILL AND SCROLL.

INTERNATIONAL JOURNALISM SOCIETY

THE Editor of the Seddonian is pleased to announce that the Seddon Memorial Technical College has been granted a charter by Quill and Scroll, the International Society for High School Journalists. This society numbers over one thousand chapters, located throughout the world. Our College is the first New Zealand member.

Backed by outstanding journalists and educators in U.S.A. the Quill and Scroll society was founded on April 10, 1926 by a group of high school supervisors for the purpose of encouraging and rewarding individual achievement in journalism. The society promotes research and conducts surveys in the field of high school journalism to determine the types of publications best suited to high schools, and to standardise the instruction in this field. Through the official publication of the society, Quill and Scroll, which reaches us regularly every other month, practical information concerning every phase of publication work is brought to editors.

We feel that membership in a world-wide society like Quill and Scroll is valuable to the College for it keeps us in touch with the best overseas publications. Through the official magazine of the society, we hear of the latest developments and ideas and are thus able to keep our own publication, the Seddonian, up to date.

EXCHANGES

THE Editor acknowledges with thanks receipt of the following School Magazines:—

Overseas: "Quill and Scroll" (magazine of the International Honorary Society for High School Journalists, U.S.A.); "The Purple Quill", Ball High School, Texas, U.S.A.; "The Tech Flash", Nova Scotia Technical College, Canada; "White and Gold", Siskiyou Union High School District, California, U.S.A.; "Crescent", Grahams town, South Africa; U.S.A.; "Melbourne Technical College", "Vantech", Vancouver Technical College, Canada; Kelvin High School, Winnipeg, Canada; "Lux Glebania", Orléans Collegiate Institute, Ottawa, Canada; "Technical Gazette of New South Wales."

New Zealand: "Pitonian", Petone Technical High School; "The Haurakian", Thames High School; "Raukura Rotorua", Rotorua High School; "The Post man", Correspondence School, Wellington; "Technical College Review, Christchurch; Wellington Technical College Review; Diocesan High School Hamilton Technical High School; "Tantiharara", Chronicle; Rangiora High School; Dargaville District High School; Sacred Heart College, Palmerston North Girls' High School; "The Index", Wanganui Technical College; "The Divoridian", Dunedin Technical High School; Takapuna Grammar School; Technical High School; "Fideller", "Leo-Mare", Waihi High School; "Fideller", Whangarei High School.

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A Father's Club.—This year a Father's Club has been formed at the Vancouver Technical High School. Membership is open to fathers of Tech boys and to teachers. The objects of the club are:—

- To create an understanding between teacher and parent.
- To afford parents the opportunity of acquainting themselves with the school.
- To further the interests of students in every way possible.

GENERAL SECTION

A SCHOOL TRIP TO PARIS

[The following article has been written for the Seddonian by Miss L. R. Todd, a specialist in the French language, who is on exchange at the College for one year, from Marlcliffe Intermediate School, Sheffield, England.]

At the beginning of any holiday in England, groups of children may be seen assembling at the great London termini. The uniforms and manners of a score of schools may be studied as the young folk wait for trains to convey them and their teachers to the Channel ports. The destinations of the groups will be found to be many and varied: Germany, France, Spain, North Africa, Italy, Denmark, Belgium, Switzerland. Different schools make different arrangements. Here is how one school party spends its Easter Holiday when the exchange permits.

On leaving London the boys and girls are full of eagerness to reach the steamer which will take them to France. Sometimes they are still more eager to set foot on dry land again! But, whatever the mood of the Channel, Paris is reached at last, and there even the worst "mal de mer" is completely forgotten. There is much to see and only eight days in which to see it. The very streets of the French capital are full of interest, from the gay boulevards, with their thronging crowds of well-dressed people, to the narrow lanes, which recall the ragged mob of Revolutionary days. So a plan must be made of how best to spend the time. The Parisians welcome the visits of the English schoolchildren, and a formal request to the Minister of Fine Arts will obtain a voucher which admits the party for half price to all the principal places of interest. But, better still, there are "free" days and in planning the holiday full advantage must be taken of these, for school children (like the Scots) make the most of everything given gratis!

Certain places must be included in the programme because of their great historical interest: Napoleon's Tomb, and the beautiful Chapel of the Invalides, the Gardens of the Tuileries (where once a great palace stood), the Louvre (once a palace too, and now a vast museum and art gallery), the Place de la Concorde (where Madame la Guillotine claimed her victims during the Reign of Terror)—all these can be visited in, perhaps, a day and a half. Another half day must be devoted to seeing the Cathedral of Notre Dame. The guides there have hundreds of interesting facts to tell, and historical relics of all sorts to show, but the interest of school boys and school girls centres chiefly round three of them: The monument to British soldiers killed on French soil during the Great War; the Treasury, where, among other objects rich and rare, they can see the wedding dress, studded with priceless gems, in which Mary, Queen of Scots was married to Francis II. of France; and the great bell made famous by Victor Hugo in his novel, "The Hunchback of Notre Dame." The hunchback, Quasimodo, you will remember, used to leap upon the bell and swing it till it boomed out over Paris. But the old caretaker shakes her head when you tell her so, and says that the last time it was rung eight men were needed to swing it! That was on November 11, 1918, when two Frenchmen, two Englishmen, two Italians and two Belgians toiled it to celebrate the Armistice and the victory of the Allies. So much for Victor Hugo, then!

The Arc de Triomphe must be visited—that vast monument designed by Napoleon to commemorate his own greatness. Modesty was definitely not one of

Napoleon's outstanding characteristics.

Under the very centre of the great archway lies the French Unknown Warrior's grave, with the simple inscription, "He died for his country." A lamp burns there day and night, year in and year out, in perpetual memory of those who lie in unmarked graves in France.

Time must be found to go to see the Eiffel Tower. It has no historic interest at all, and is, moreover, a flimsy and unsafe-looking structure, but since it happens to be the second highest building in the world, every school boy visiting Paris seems to feel the urge to reach the top of it.

Town streets grow very boring to the feet of the sight-seer after a day or two, so this particular school party usually spends one day out in the woods at St. Cloud. The trip up the river in a pleasure boat is delightful, and the park of St. Cloud is one of the beauty spots of the surroundings of Paris. There is plenty of room for games out there, and little cafes near at hand, where hot, thirsty boys and girls can refresh themselves with "citronnade," made as only the French can make it. After a day in the country and an early supper, the evening is often spent at a circus or a cinema.

Two more days are spent away from Paris: one at Versailles and the other at Fontainebleau. At the former there is the huge castle built by Louis XIV., at a fabulous cost. Everyone of the seemingly endless succession of rooms contains a portrait of the Great Monarch himself; and, in addition, there are numerous statues of him in the halls, courtyards and gardens of the palace. The school children are always much interested in the magnificent staircase of black and white marble, where, the guides tell you, the Swiss Guards fought till the last man fell, in 1792, to prevent the rabble from reaching the apartments of Marie Antoinette. They died in vain, however, for the King and Queen were both seized as they tried to hide in the little rooms at the top of the staircase.

Versailles is "free to the public" on Sundays, so we usually choose Sunday for our visit. Unfortunately there are thousands of other economically-minded people in and around Paris, so Versailles becomes associated with great crowds, hot rooms, and hard, hard floors.

The Chateau of Fontainebleau, forty miles from Paris, is reached by motor charabanc. The road runs through the great forest of Fontainebleau, once the home of wolves, bears and brigands. It is quite pleasant to eat a picnic lunch in the Brigand's Cave before driving for miles through green avenues into the little town of Fontainebleau. The castle there is much smaller than Versailles, and perhaps more interesting. There is a pond full of enormous carp, in the gardens, and the keepers tell you that some of them are hundreds of years old.

And so the week passes all too quickly, and the time comes for buying presents to take home. With every shop in Paris to choose from this should be easy. But money is scarce at the end of the holiday, and the hour or so spent shopping proves more exhausting than any excursion of the week. At last everybody emerges triumphant, and the party adjourns to the nearest cafe, where all who can afford a citronnade order one, and, if they feel generous, perhaps pay for another for some poor bankrupt friend. Then back to the hotel to pack, to eat the last meal of the holidays, and to say good-bye. And so home.



BASKETBALL, A TEAM.

Back Row: J. Reeves, A. Irvine, G. Lockley, O. Darby, M. Black.
Front Row: A. Prenter, M. Gow, D. Mansfield (captain), C. Watters, N. Macdonald, Miss Adams.
—Photograph by Alan Blakey.



BASKETBALL, B TEAM

Back Row: G. Griffiths, B. Hingan, B. Oliphant, E. Sawyer, P. Murray, J. Sullivan.
Front Row: Miss Adams, M. Glassey, B. Martin, R. Tilby (captain), J. Bright, M. Probert, F. Hoskings.
—Photograph by Alan Blakey.

IMPRESSIONS - A VISIT TO J.C.L.

IN New Zealand, where there is such a comparatively small population, large scale businesses such as there are in Great Britain and other manufacturing countries, are little known. However, it was my privilege to visit the premises of John Court, Limited, and view with much wonder and interest the preparation of all classes of goods for the market.

One of the impressions I first gained was the extensive use of machinery. During our progress through the workrooms I noted that machinery was used wherever possible. This use of machinery instead of labour, has an economic significance as the increased use of machinery means that less labour is required and, at the same time, an increase in the output is obtained. As time is a most important factor in production, the acquiring of modern and up-to-date machinery is of the utmost importance. Careful organisation is also needed from the first treatment of the raw material to the selling and despatching of the goods. Great care must be taken to see that all goods are up to standard, and that time is saved wherever possible.

One of the rooms we visited contained machines which were used for all kinds of fancy stitches. The one which impressed me most vividly, was one which had three different parts to operate at the same time. This machine was used for satin stitch embroidery, and was operated with the hands, knees and feet of the machinist. With her hands she guided the cloth, with her feet she operated the pedal and with her knees she regulated the length of the stitch. Some very pretty coloured designs were made by this machine.

Of special interest in this section also were the smocking, faggoting and tucking machines. These machines carry out their work without any previous preparation being required of the machinist, and a piece of plain material passed under the foot of any of these machines, comes out from the process quite complete. For instance, in the tucking machine, there is no labour required to measure and tuck each small tuck, for this wonderful invention makes and stitches the tucks all in one operation. As we passed from machine to machine, I realised more and more the extent to which both time and labour is saved by the use of these machines. Eyelets can be made in a few seconds and other stitches can be worked at an amazingly quick rate. There is no need to prick one's fingers by laborious sewing, when these machines can do the same work quickly and accurately.

We watched the button holeing machine at work, and noticed that the needle was guided by a metal foot, which was shaped like a button hole. Round the inside of this metal foot the needle was rapidly sent by the aid of electrically driven machinery, and in a few seconds the two sides and one end of the button hole had been stitched. The partially completed button hole was then transferred to a buttoning machine which finished off the button hole so that no hand work was necessary for its making. Often as I watched the machines, each capable of a certain kind of work, I wondered how long it had taken to complete these wonderful inventions.

Electricity is used for cutting out material and much time is saved as the electric cutter can cut out a five inch layer of cloth. After the garment has been sewn together, it is pressed by steam without great effort on the part of the operator.

A machine, which aroused great interest in the furnishing department, was that which sterilised the down and blew it into the case of the quilt.

In the office we were again shown labour and time saving machines. In a large firm where there is always a large amount of office work it is essential to have an efficient and up-to-date office. John Court, Limited, has many costly and up-to-date office machines, and work can thus be done quickly and accurately. An ingenious device to save time and hasten despatch, is a winding iron "despatcher," which is built connecting each floor, so that a parcel put in on any floor will fall down until it reaches the despatch office in the basement.

At last we came to the kitchen where all the cooking appliances are electric. Where efficiency in every detail is essential, and labour and time saving devices are shown in the cake mixing machine, slicing machine, washing-up machine and potato peeling machine. This last is very useful when large quantities of potatoes are required, as it can peel ten pounds of potatoes in two minutes. The drum, which is rough-coated on the inside, revolves and the skins are taken off the potatoes when they are bumped against the sides.

When we came out from examining the kitchen and its appointments, we had a delightful surprise awaiting us in the form of morning tea, in the cool and tastefully decorated tea room. From the table we looked out on the roof garden, set about with ferns.

This firm is very up-to-date in its methods, and it is an outstanding sign of the progress of the times. It is an old established firm and it is a great credit to Auckland.

—N.H. Diploma.

J.C.L. VISITS

THIS year again, J.C.L. extended their invitation to parties of our students to visit their Workrooms and Store. Five parties from various departments had the pleasure of paying them a visit, and they were conducted over the establishment by senior members of the J.C.L. staff. In each department, a foreman or forewoman explained the work going on, and operators demonstrated the machines upon which they were employed.

The insight gained under such ideal conditions of the organisation and of the working of a large business, is of immense educational value to the students, and, that this is appreciated by them, was clearly demonstrated in the essays written by the students after their visit. Sixteen of these essays were selected and forwarded, at his request, to Mr. J. W. Court, who very kindly forwarded to each essay-writer a prize of five shillings.

RETURN VISIT

On August 7, the College was given the opportunity of returning the hospitality of the J.C.L., when Mr. J. W. Court and ten members of the J.C.L. staff paid a visit of inspection to the College. The party was accompanied by Miss Todd, a teacher on the College staff on exchange from Sheffield, England, and Miss Cumming, a primary school teacher on exchange from New South Wales. Members of the party expressed themselves as being keenly interested in the work of the various departments. Instructors explained the courses, the equipment and the nature of the work going on. In addition, the visitors questioned individual students, and they were impressed by the intelligent appreciation by the boys and girls of the work they were engaged on. Morning tea was provided by the Domestic Science Department, and the visitors' thanks to the College were charmingly expressed by a lady member of the J.C.L. staff.

THE SCHOOL LIBRARY

THE School Library is now established on a sound footing, and is proving a most useful adjunct to the school work. It is realised that the future will see a marked change in industrial organisation which will allow people a greater amount of leisure time for reading, recreation, hobbies, research and artistic development. It is no small part of the duty of present-day educational institutions to prepare our young people for the right use of leisure. Guidance in reading is given by our English teachers who foster an appreciation of good literature, fiction, biography, history, travel, verse and drama. Suitable books for reading, at present in our Library, are recommended, and the borrowing facilities are being freely made use of. An indirect advantage of the lending library is the fact that the books find their way into numerous homes and must have an influence in forming literary tastes beyond the limits of student readers only.

During the year an appeal to the students was made for surplus books in their homes suitable for the Library, and this resulted in some addition to our general literature. Several times the number already handed in are expected, and readers are asked to accept this as an invitation to donate to the College Library suitable books of which little or no use is now being made in their homes. Attention is also drawn to the practice followed in some schools where parents donate to the school a book for the school library on their boy or girl leaving school. This is a graceful means of recognising in a practical way the good wishes of parents to the Institution, where their child has been trained. A suitable inscription on the inside cover will also give the school a pleasant reminder of boys and girls who have passed through and gone on their way to a wider sphere of life.

The Library Committee meets frequently to organise and direct library matters: it consists of Miss E. M. Davis (chairman), Miss B. Carnahan, representative of the College Board of Managers, and representatives of the various departments of the College. The funds available, some £200 annually, are administered with a view to building up a library suitable for a Technical College. Miss Wood is full time Librarian. Besides the general literature already mentioned, strong sectional libraries have been established, containing books on technical subjects, including all branches of engineering, home science, agricultural science, accountancy, law, arts and crafts, woodwork, carpentry and building construction, but also on sports and recreations. There are also general works of reference, encyclopaedias and dictionaries, and a wide range of periodicals.

Up to the present, the extent to which the Library is used for reference purposes is disappointing, and all associated with the College are urged to encourage greater use of the excellent facilities for study offered by the Library.

New Books in the Library.

The total number of volumes in the Library is now 4224. About 200 new books have been added this year, including—

Fiction.—The Prince and the Pauper (Twain), Ootaa (Masfield), Stalky's Adventures (Dunsterhead), The Lonely Queen (J. C. Bailey), Nada, the Lily (Haggard), Jeremy at Crale (Haggard), Penelope's Experiences in England (Wiggin), East Lynn (Wood), Folk Holt (Geo. Elliot), Tales of the Five Towns (Arnold Bennett).

Poetry and Drama.—Collected Poems of Masfield, Poetical Works of Byron, Browning (Morris), Life and Death of Jason (Morris), Chaucer's Complete Works, Golden Treasury, Gilbert Murray's Translations of The Trojan Women and Iphigeneia in Tauris, Pope's Iliad and Odyssey, Plays of John Gay, Second Plays of A. A. Milne.

History.—Story of the British Nation (Hutchinson), Outlines of British History (Tuckner), The House of Commons and Monarchy (H. Bellco), Outlines of European History (Grant), Story of Mankind, Liberation of Mankind (Van Loon).

Biography.—Life of Mary Kingsley (Gwynn), Lenin (Fox), Eminent Victorians (Lytton Strachey), Napoleon Buonaparte (Lockhart), Mary, Queen of Scots (Eric Linklater).

Adventure and Travel.—Adventures in Bolivia (Froediger), A Journey to the Polar Seas (Franklin), Blue Days at Sea (H. V. Morton), Australia and Back (Cobham), Travels of Mungo Park, Seamen of the Downs (Bagley), Sierra Leone (Newland).

Commerce.—The Chairman's Guide, The Secretarial Primer (Holman), Dictionary of Secretarial Law and Practice (Tovey), Banking in New Zealand (Moore and Barton), The Law Relating to Companies in New Zealand (Anderson and Daigleish).

Agriculture.—Animal Nutrition (Wood), The Soil (Hall), Culture of Vegetables and Flowers (Sutton), Soil Conditions and Plant Growth (Russell), Plants and Animals (Johnson), Chemistry of Crop Production (Wood).

Engineering.—Experimental Radio Engineering (Morecraft), Machinery's Handbook, Examples in the Strength and Elasticity of Materials (Bird), Machine Tool Work (Turner), Jigs and Fixtures (Colvin and Haas), Structural Theory and Design (Sutherland and Bowman).

General Reference. Arthur Mee's Children's Encyclopaedia, Phillip's Centenary Handy General Atlas of the World, A Dictionary of Modern English Usage (Fowler), A History of English Literature (Legouis and Cazamain).

Periodicals in Library.—John O'London, New Zealand Railways Magazine, The New Zealand Decorator, Times Literary Supplement, Times Educational Supplement, Industrial Arts and Vocational Education, Current Literature, The Wireless World, The General Radio Experimenter, The Investors' Journal, The Accountants' Journal, The Auckland Chamber of Commerce Journal, The Machinist, The Motor, Automobile Trade Journal, Discovery, Journal of Royal Institute of Architects.

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A RECENTLY INTRODUCED WEED

A specimen from Green Lane, Auckland, was recently brought in to the Agricultural Department of the College for identification. The plant, *Galinsoga parviflora*, had recently made its appearance. It has also been noted in Stanley Bay, where it has established itself amongst the scoria. *Galinsoga* is a South American weed, which has proved troublesome in Southern Europe. "It has a pale green, slender, many-branched and spreading stem, sparsely clothed with pressed hairs. The leaves are opposite, ovate, three-nerved, scallop-toothed with acute apex, the upper leaves sessile, the lower with slender petioles." The heads are small, of the daisy family, solitary, with petals white, very showy and very abundant. It will be interesting to note to what extent the plant establishes itself. It is controlled by prevention of seeding, and on cultivated ground by the usual cultivation methods.

The History of the Rotorua Camp

AS a general rule school camps are not very well attended, but this is not the case with the College's annual camp, inaugurated two years ago. In 1932 the first camp was started under the direction of Mr. Leves. The trips he arranged and the concessions he obtained, enabled the boys to see the thermal regions and enjoy their stay in Rotorua at the minimum cost.

The boys talked so much of their happy and successful stay that a second camp was held, under the supervision of Messrs. Stewart and McRobie, who rose nobly to the occasion and provided an excellent programme of trips. The popularity of the camp was shown by the large number of the boys who attended the camp for the second time. The range of trips was greatly increased during the second camp. Two boys cycled to Rotorua from Auckland, a distance of 150 miles, in a day, while a group of four boys cycled to Taupo and back to the camp in two days.

The object of the camp is two-fold; firstly, it gives the boys of the College an opportunity of visiting one of the best health resorts in the world, and secondly, they have a change of surroundings, which is necessary for their physical growth.

From records kept during the first camp the average increase in weight was five, while this increase was surpassed by the second camp. With such a holiday immediately before the school year commences, it was found that very few boys who attended the camp suffered from colds or sickness during the year. It is the proud boast of the camp that no serious injury has been sustained by anyone attending the camp.

That the charge is nominal is shown by the following table:—

	Camp.	Ordinary
Cost of the fare and board (camp)	£3 5 0	
Ordinary—		
Fare		£1 15 0
Board at 40/- per week ..		£6 0 0
Cost of Entrance and Guide Fees at Five Thermal Parks—		
Fairy Springs	6	1 6
Tikitere	9	2 6
Buried Village	Free	1 0
Waioatapu	9	2 6
Hamurana Springs	Free	1 0
Theatre, per time	6	1 6
Baths, per time	5	9
Spare Change	10 0	2 7 7
Totals	£3 17 11	£9 5 9

The ordinary charge has travelling expenses to and from the thermal parks, and the unknown amount of spare change necessary to be added. —M.S.L.

The Second Camp at Rotorua

PLATFORM 5 of the Auckland Railway Station was a scene of much activity on Monday, 17th January. Boys were scattered over the platform either bidding farewell to their friends, arranging their luggage in their special carriage, or buying provisions for their journey. After last-minute farewells we settled down for our journey, as the train gathered speed to go roaring over the waterfront.

At quarter past four the train steamed into the crowded Rotorua Station, where we were greeted by "The Two," namely Wakefield and McCormick. Having evaded all the hotel porters we managed to load our luggage on a truck and get our bicycles.

As soon as we arrived at the camp (the local racecourse) we were promptly shown the totalisator, which was to be our dormitory for the next three weeks. We then received a palliasee each and were directed to the straw heap (there ensued the "Battle for Straw,") but owing to restricted space, details cannot be given. After a hearty repast of "Jiggs" (corn beef and cabbage), most of the boys visited the town or the Blue Baths.

The supervisors, Messrs. Stewart and McRobie, provided an excellent programme of trips, which included "hiking" and "biking." Following is a list of the trips we took—

Whaka (2 mile "bike")—A very pleasant tramp through the thermal region, our guide being Mr. Noble, our cook.

Fairy Springs (12 mile "bike")—Remarkable springs and an impressive study of rainbow trout.

Tikitere (Hell's Gate) and on to Lake Rotiti (30 mile "bike")—The name of the thermal region is very appropriate. The lake provided delightful swimming.

Blue and Green Lakes, Buried Village, and the Lakes Rotomahana and Tarawera.—This trip consisted of a ten mile "bike" passing the Blue and Green Lakes and the Buried Village; a launch trip on Lake Tarawera; and a "bike" of a mile to Lake Rotomahana. We were shown the subterranean outlet of the latter lake.

Waioatapu and the Rainbow Mountain (40 mile "bike").—The remarkable mountain and the silver "Waioatapu" (especially Lady Knox Geyser), made this the best trip of our stay.

Hamurana Springs (20 mile "bike")—These springs proved very interesting to all (especially to Solomon who found a half-penny).

Mt. Ngongotahua (a "bike" of 6 miles, then a 5 mile "bike" to the top)—From the top one commands a wonderful view of the surrounding country.

State Forest (3 mile "bike")—This was an educational trip. Also some of the boys were conducted over the Mayor's farm and cheese factory.

The Blue Baths and the lake provided popular swimming for the boys. Here it is interesting to note that several boys made it a regular practice to go for a swim every morning before breakfast.

On the evening prior to our departure the cook, living up to his reputation of the previous year spread before us a real "Beano." This year our guest of honour was Mr. Jackson, the Mayor, who gave a speech before making presentations, subscribed for the boys, to Messrs. Stewart and Noble. Mr. Stewart suitably replied (Ah—Um—Ah—Um), and the evening was concluded by a table tennis tournament which was won by Bentley junior, with Crowhurst runner-up. —M.S.L.



STAMP CLUB

AT the beginning of the Second Term a Stamp Club was formed by Mr. Woolter. There was a remarkable response to the call for members and the meetings at lunch-time on Mondays and Wednesdays were crowded out. With the establishment of a special organisation on Thursday afternoons from 2.30 to 3.30 p.m., the Stamp Club was incorporated as part of the hobby class scheme, under the supervision of Mr. Scott. In addition, the Monday lunch-time meeting was held as usual by Mr. Woolter.

So far the functions of the club have been restricted mainly to exchanging between the members, and great business has been done. Meanwhile, members have been exhorted to tap all possible sources for present-day New Zealand issues, so that supplies may be available when overseas contacts have been arranged. Schools in Canada, India, South Africa, Rhodesia, and Fiji have been written to, but at present, results are meagre. Another feature of the meetings has been a short talk by one of the members on some topic of interest.

Important Events in the Stamp World.

The New Pictorial Issue.—Stamp enthusiasts in New Zealand eagerly awaited the issue of the new pictorial set on May the 1st. A set of six different Official First Day Covers, containing a folder with a description of the New Zealand pictorial stamps, was made available by the Post Office authorities. Following is a brief description of the set, now familiar, in the lower values at least, to all:—

- 10.—A pied fantail with a background of clematis. Colour: Green beetle.
- 14.—The native bird, the kiwi, with typical New Zealand scenery in the background. Colour: Guardsman red.
- 14d.—Young Maori woman dressed in typical fashion, lowering a basket of food for cooking into a boiling spring. Colour: Copper brown.
- 24.—Carved Maori house made of raupo, with a tree fern in the left background and a cabbage-tree in the right. Colour: Marigold.
- 24d.—A view of Mount Cook (12,349ft.) from the Hermitage—has a border of alpine lilies. Colour: Border, vitrix blue; centre, beech brown.
- 24.—The head of a Maori girl, showing hula feather in the hair, and a Maori amulet, the tiki on her breast. Colour: Natal brown.
- 44.—View of Mitre Peak in the foreground, with a border of tea-tree. Colour: Border, nigger brown; centre, jet black.

5d.—A striped marlin swordfish leaping from the water after being hooked. Colour: Royal blue.

6d.—The harvesting of a crop of wheat or oats.

Colour: Cherry.

8d.—The unique tuatara lizard—sole living representative of some of the oldest inhabitants of the earth. Colour: Brazil nut.

9d.—A design used by the Maori for the ornamentation of the sliding panel he used as a door. Colour: Carmine and black.

1/.—One of New Zealand's beautiful singing birds—the tul. Colour: Bottle green.

2/.—The landing of Captain Cook, the first white man to set foot in this country, at Poverty Bay, on 8th October, 1769. Colour: Cypress green.

3/.—A view of snow-capped Mount Egmont (\$2,000ft.), an extinct volcano, which dominates the Province of Taranaki. Colour: Border, golden brown; centre, nigger brown.

The Jubilee Issue.—Early in May a Jubilee issue of three values came out on the heels of the pictorial issue. The three denominations were the 4d. (green), the 1d. (red), and the 6d. (orange). Those who failed to invest in some 6d. Jubilees were chagrined to find that they had doubled in price shortly after the issue closed in July.

It is interesting to note, that, in all, about 250 different Jubilee stamps were issued throughout the British Empire. At the end of the year, the Stamp Club intend to feature a display of Jubilee issues in the Printing Room, on Open Day.

The Western Samoa Issue.—Most of the enthusiasts made certain of obtaining some of the new Samoa issue on Official First Day Covers, post-marked 7th August, 1935, at Apia. They were very pleased with the beautiful stamps, and congratulate the postal official who was responsible for the post-marks.

APPEAL TO OLD STUDENTS.

The Stamp Club invites Old Students, who can do so, to send New Zealand stamps to the College, c/o Mr. Woolter. Just tear off the paper on which the stamp is gummed, leaving the stamp on the paper and we will do the rest. Thank you.

OVERSEAS SCHOOLS.

The Stamp Club will be pleased to establish exchanges with overseas schools. Address all communications to Mr. Woolter, "Seddonian" Editor.

W. S. BAINBRIDGE. An Appreciation

The Seddon Memorial Technical College has produced many fine athletes—in fact, is comparable with any school in New Zealand in this respect—but undoubtedly the finest in W. S. Bainbridge. Apart from his undoubted natural ability this fine runner has achieved his great records through the tenacity of purpose that has marked his efforts in all phases of life. By sheer concentration and attention to the finer points of the sport, Bainbridge has attained even greater heights than he would have done had he been content to follow the usual methods of training as carried out by devotees of athletics in New Zealand.

Some ten years ago a tall slim boy surprised the school by carrying off the College athletic championship from the hardest opposition that has ever offered at any one time. The writer means this as the opponents that Bainbridge, conquered included such students as Murray, Kelsey and Biggs, all of whom proved their worth on the tracks. That same year Bainbridge, for this was the youth in question—caused quite a shock to the Auckland champion over 440 yards, A.C. Garrick, by running him to a yard in that event. Later that afternoon it is worth noting that a relay team from the College, consisting of W. J. Murray, H. E. Biggs, G. Kelsey and W. S. Bainbridge, carried off the 400 yards relay title, a feat that has never been equalled in New Zealand.

For years after Bainbridge's appearance on the track at the meeting mentioned above, he gave up all ideas of running, as he was concentrating on his studies. All the time he was bent on passing his examinations and, until this part of his life was over, he was determined that what athletic career was ahead of him was a thing of the past. One day Bainbridge returned to running at an age when most athletes are in their prime. His early running soon showed the abilities of an Auckland athlete of the greatest "stars" that this province has seen, had arisen. After a number of wins in handicap events, he contested the 220 yards and 440 yards championships, securing a third in the first event and showing a clear pair of heels to his opponents in the longer race, to record his first provincial title win. Bainbridge went to Christchurch, with the Auckland team to contest the New Zealand championships but met with little success. The following year his running showed more solidity and, though well back in handicap marks, he was always dangerous, and over 440 yards was well high unbeatable. In the championships of that year he ran better than ever, securing second place in the 100 yards to another Technical College Old Boy, V. R. Walker, and beating him in the 220 yards. Once again he failed to do justice to himself at the New Zealand championships in Wellington, where he secured a third place only in the quarter mile.

Last season, 1934-35, proved the great year in Bainbridge's athletic life. One of the finest trainers in New Zealand, Mr. J. Elliott, took Bainbridge under his charge, and since then he has never looked back. Competition was keener than ever and despite the presence of Mr. Elliott, one of the greatest New Zealand sprinters at the Auckland championships, Bainbridge simply smashed his way into athletic prominence. Within the space of two hours he won the final of the same event in 10 1-5 seconds, he won his heat in the 100 yards, beat Elliott and won the 220 yards in 24 seconds—second—performance—and carried off first place in the 440 yards in 49 2-5 seconds, the fastest time ever recorded in a local championship. But this was to be followed by another series of runs that was to thrill the athletic enthusiasts of the whole Dominion.

The 1935 New Zealand athletic championships were held at Wanganui on a track that was not conducive to fast running, the opposition was admittedly the best that the Dominion has seen for years. Bainbridge had frequently proved that he was adversely affected by travelling, but he triumphed, and his great running was largely responsible for the return of the championship shield to Auckland after over twenty years. As one member of the team said: "His running was an inspiration to us all," and through-

out the land sporting writers were unanimous that his performance was perhaps the greatest that any athlete has ever recorded in one meeting. On the Friday evening he won his heat in the 220 yards in 23 1-4 seconds, in the 440 yards in 59 3-5 seconds, and was second to MacFarlane, the 100 yards champion, over that distance in 10 seconds. On the Saturday he was only beaten by inches—many thought he won—in the 100 yards in 10 seconds; he won the 220 yards in 23 3-5 seconds—a New Zealand record—and carried off the honours in the 440 yards in 49 1-5 seconds. A wonderful performance. His 220 yards record displaced that held jointly by J. K. Ayres-Oosterlaak (South Africa), M. Kirksey (U.S.A.), and J. V. Scholtz (U.S.A.), three of the greatest sprinters the world has ever seen, so that some idea of his splendid running may be gauged from that performance.

Bainbridge has stamped his mark on the athletic pages of New Zealand sport, but to his friends he has only gained that for which he strove. By all young athletes Bainbridge can be taken as a model. His first thought after leaving school was the gaining of those examinations that were necessary to his advancement and, though the cost was great, he won through. No athlete has ever given so much time to the finer and essential points that mark the "star" athlete, and no athlete has ever been a more loyal member of his club, and a greater help and friend to his club mates. No swollen head has marked his success, and Bainbridge is still the same modest and unassuming athlete that he was when he started his career. To his trainer he credits his success, and his generosity in this direction is one which every athlete and boy can well emulate. However fine a sport one may be, there is generally someone who has been responsible for the achievements that have been gained.

And so we pass on after but a brief review of the athletic performances of the greatest athlete of the College has ever produced, W. S. Bainbridge, whose diligence and attention to the things that matter, have brought him fame, and whose modesty and self-effacement has won him the respect of all who have come into contact with him.

—Old Binniste.

THURSDAY GROUP MEETINGS

The organisation of the school for the last hour on Thursday afternoon into groups for athletics, sports, and also indoor activities, has become an interesting feature of our educational work. Besides a large group taking Musical Appreciation, others are formed into a Yacht Club, a Home Gardens Club, a Stamp Club, Play Reading Groups, a Debating Club, and a Current Events Discussion Group. The latter two groups met together on August 8 to discuss the Italo-Abyssinian Dispute. The Debating Club, taking the side of Italy, was represented by Sage, Crowhurst and Carson, and the case for Abyssinia was fielded, for the Current Events Discussion Group.

The discussion indicated that the subject had been carefully studied by all the speakers, and proved the value of considering both sides of a subject before coming to a conclusion. A vote taken on the cases for Italy and Abyssinia as put forward by the speakers, resulted in a large majority of votes in favour of Italy, a result that was, no doubt, largely influenced by the fluent oratory of Sage, who was the outstanding speaker on this occasion.

THE TOPSY-TURVY WORLD.

"In Canada, crop after crop of wheat has been destroyed in order to cause a scarcity and a higher price. In the United States, hundreds of thousands of pigs have been incinerated at various points in the country in an effort to dispose of four million pigs. Farmers have been plodding pouring truck loads of milk on the roads in an effort to raise prices. All over the world prosperity has assumed the properties of a boomerang."

—"Tech Flash" Editorial.

THE MIKADO

The annual dramatic entertainment of 1935 must assuredly rank as the finest effort which the College has yet made. Once again congratulations are due to Mr. A. B. Thompson for an outstanding production. By his untiring work he has brought the cast to a state of perfection which would seriously rival the efforts of a professional company. A school, which can provide its own scenery, costumes, lighting effects, properties, orchestra and programme, as we have done, is truly worthy of the title "A miniature city," which has recently been bestowed upon the Seddon Memorial Technical College.

Special mention must be made of the business organization for "The Mikado," which has been handled very efficiently by Mr. L. E. Thibridge. The sale of tickets was opened on the 18th of September, and on the first day over £20 was handed in. A week later £100 was passed, and, with still another week to go before the first night of "The Mikado," the total reached £160. Excluding the special performance on Monday, the 14th of September, for the benefit of Rotary Club charities, the grand total receipts were approximately £136. The sale of tickets was, as usual, greatly stimulated by the desire of each class to win the prize of a special half-day holiday for the classes selling the highest class total, and the highest average per pupil. The former prize goes to A. 2A, with the excellent total of £20/3/-, and the latter to the Diploma Class with an average of 14/5. The best class efforts were:—

Class.	Total.	Average.
A. 2A	£20 3 0	13 0
Diploma	£8 5 0	14 5
W. 2 and 3	£6 17 0	13 6
E. 3A	£6 18 6	8 2
D. 2A	£7 0 6	6 11
A. 1A	£6 1 0	3 9
C. 1C	£7 1 6	3 3
E. 1C and D	£6 12 6	3 2

The members of the cast are deserving of the highest praise for the performance they put up. One and all, principals and chorus, they gave of their very best and each night they held the packed audiences spell-bound from start to finish. The clever characterisation of Poo-Bah by John S. Nicholson, and the imitable humour of Martyn Bell-Booth as Ko-Ko, the Lord High Executioner, will be long remembered. As wards of Ko-Ko, Nancy Power, Edna Lewis and Joan Vandenbergh, made a singularly sweet trio, while Raymond S. Brown carried through the onerous part of Nanki-Poo with great credit. Betty Brooke, without whom one could not imagine a College entertainment, deserves congratulations for Pickering made an imposing Mikado, and Edwin E. Carpenter did full justice to the part of Pish-Tush. Then, too, the chorus of school-girls, nobles, guards and coolies must be mentioned for their fine singing and demeanour on the stage. Lastly, we must not forget that army of workers behind the stage whose invaluable assistance helped to make a production which few schools could attempt.

It was pleasing to see an old friend of the school in Mrs. French, nee Miss F. E. Lee, take her place in the orchestra among the first violins. The conductor was Mr. A. B. Thompson, and the pianist Miss L. Burley. Special thanks are due to friends of the College who assisted the orchestra.

The Secret of Style and Form In Athletics

It has been said with truth that J. E. Lovelock, the New Zealand runner, who has recently made a name for himself, runs with his head as well as his legs. Lovelock has applied to his running on the track the knowledge he has gained from his medical studies, and such a view of his performances that his views at once claim attention. Concentration and relaxation, he proclaims, are the secret of style or form, and he is at pains to stress the importance of the mind controlling the body.

Within the terms concentration and relaxation, one might really include the whole of the mental and physical sides of athletics reduced in the minds of some, to rather theoretical terms: but the tendency to deride theory in sport and to aim at blind practice can lead only a certain distance towards success. Insofar as they can be discussed separately, for each is inextricably bound up with the other, let us first consider the physical side of relaxation. If a muscle is kept tightly contracted, the capillaries, carrying food and energy to the muscle, are occluded, the blood stream is stopped, and waste matters accumulate. So that it is obvious that the muscle that is most relaxed in between movements, is receiving the best blood supply and is being given the best chance of performing most efficiently its functions of contraction. Obviously too, as muscular movements use up energy, unless a muscle is doing real work and definitely assisting the movements of a body designed to produce the required effect most rapidly, it is wasting the body forces.

Such muscles as those of the back, of the neck, and of the arms should, therefore, be relaxed as far as balance and rhythm allow, so that all the energy available may be directed to the more essential parts. The tightening of the back muscles, the wasteful throwing around of the arms with excess shoulder movement, the concentrated neck muscles with head thrown in the air, are all too familiar examples of waste. Even first class athletes are guilty of these faults in a time of stress: during the middle stages of a race their style may be perfect, but in a hard finish or defeat when physical fatigue has been allowed to dull their mental alertness, they have failed to remember that they can will themselves into fresh efforts if only they maintain control. Thus, at a time when they have most need of relaxation, they throw care to the wind and strive blindly by contracting every muscle, useful and useless, in an endeavour to reach the tape.

On the mental side concentration really means to employ all one's attention to the matter in hand, and it is this ability to concentrate that makes success in any field of endeavour, be it physical or mental.

To this athletics is no exception. In training one must concentrate upon the study and science of a game. In racing, concentration is even more important. Right from the start one must concentrate on the run, on one's opponents and how they are moving, where they are lying in the field, where their tactics appear to be at fault, on oneself, judging the pace most suitable for the best ultimate time, on positioning, on relaxation and its accompanying balance and style, and on many other little points such as rhythm and breath control.

When fatigue sets in, when the tired legs refuse to drive the tired body any faster, it is concentration alone which can overcome it. Remember that the mind must control the body, however weary, and that by steady concentration upon relaxation and style, one is able to call in a most amazing manner, upon fresh supplies of energy, from what had seemed a sorely depleted store. —A. D. Tweedie.

Smiles from Other Schools

Last year I asked her to be my wife and she gave me a decidedly negative reply, so to get even, I married her mother. Then my father married the girl. When I married the girl's mother, the girl became my daughter and my father married my daughter so my daughter she became my mother. If my father is my son and my daughter is my mother, who am I? My mother's mother is my wife, and must be my grandmother, and being my grandmother's husband I must be my own grandfather, and there you are. —"Tech Flash," Nova Scotia.

Cop (to inebriate trying to fit key in lamp post). "I don't think there's anyone home there to-night." Buzzed: "Must be. Ther'ah a light upstairs." —"Vantech," Vancouver Technical.

The brain twister, who formulates the questions asked in a form credit administration test of applicants for jobs at Omaha, Neb., must have felt abashed last week. The twist contains two catch questions to which the applicants were supposed to write "No answer": The questions: "How long is a piece of string?" and "How far can a dog run into the woods?" An Iowa student answered the unanswerable questions. He said: "A piece of string is twice as long as the distance from the centre to either end." "A dog can run only half way into the woods, after that he's running out of the woods." He got the job. —"Tech Flash," Nova Scotia.

Elsie Allen: "What do you think of the Dionno quintuplets?" Willie Short: "It looks to me like a good five-year plan gone wrong." —"Lux Glebana," Ottawa.

Manager: "A customer complains that the coffee tastes like mud." Clerk: "Tell him it was ground this morning." —"Ted and Black."

Professor: "What were Montezuma's dying words?" Jack: "Who's afraid of the big bad 'Volvo'?" —"Aragony of Commerce."

Football Coach (as stretcher passes off the field): "Let me know if he dies, I always take a personal interest in my boys." —"Tech Flash," Nova Scotia.

Marion: "I'm starting a world-wide movement against cosmetics; powder shall never touch my nose!" —"The Clarion," Stratford, Conn., U.S.A.

Teacher: "There's a boy in this class who's making a fool of himself. When he's finished, I'll commence." —"Vantech," Vancouver Technical.

An automobile salesman demonstrating, said: "This car runs so smoothly, you can't feel it, so quietly you can't hear it, has such perfect combustion, you can't smell it, and for speed . . . you can't see it." "For goodness sake, how do you know the dogzone thing is there?" asked the customer. —"The Pitchfork," Marietta High School, U.S.A.

STUNG!

A fat boy named Peter the Rover
Once rolled in a field of green clover;
He fell on a nettle
Which tested his mettle,
And now he is scratching all over.
—"The Purple Quill," Galveston, Texas.

S. Nicol (in cafeteria): "Do you serve shrimps here?" Waitress (coldly): "Yes, we serve anyone, what's your order?" —"Lux Glebana," Ottawa.

Captain: "Answer me. Why did you desert under-fire?" Private Rastus: "Cap'n, it's de Gospel trufe. Ah wuz jest backing up fob to get a good start to charge." —"Tech Flash," Nova Scotia.

"Two pennyworth of bicarbonate of soda for indigestion at this time of night," cried the infuriated druggist, who had been roused at 2 a.m., "when a glass of hot water would have done just as well." "Well, well," returned MacDougal, "I thank ye for the advice, and I'll no bother ye at all, good night." —"Lux Glebana," Ottawa.

Teacher: "How many times have I told you to get to school on time?" Pupil: "I don't know, sir; I thought you were keeping score." —"The Echoes."

R.A.F. Cadetship - Success of Old Student

THE College is proud of the splendid record of Cecil Milne who has "passed out" at the head of the list from the R.A.F. training establishment at Halton, England.

Following in the footsteps of his brother Deryck who obtained an R.A.F. apprenticeship in 1929, two years later Cecil Milne was nominated as an aircraft apprentice by the Defence Department and duly entered the No. 1 School of Technical Training at Halton in January, 1932. Now he has completed his three years' course with conspicuous success. Besides the cadetship which gives him entry to the Royal Air Force College, Cranwell, to follow the full normal course of training for pilot officers, he has secured the Wakefield Scholarship, a monetary prize of £75 awarded to the apprentice who obtained the first place in the final examinations.

The success achieved by Cecil Milne, together with another New Zealander, J.G. Fraser, has been the subject of congratulations from the Minister of Defence. "The success of Milne and Fraser," he says, "is all the more pleasing, because it is known that cadetships in the Air Force are difficult to obtain and are only awarded to apprentices who show outstanding ability."

Recent news from Deryck Milne contains a thrilling account of a crash (luckily without injury to anyone) in the Malay Jungle by his "plane white on patrol duty" during the Centenary Air Race. While flying "blind" in a storm, the machine lost height and crashed into a forest. Next day the crew set off on a trek through the dense jungle undergrowth infested with tigers, panthers, snakes, and wild elephants to the nearest village which was safely reached. In a letter dated 6/3/35 at Raisalpur, on the famous North-West Frontier, Milne describes the flight from Singapore in an interesting fashion. Raisalpur is quite close to the Khyber Pass.

WINTER SPORTS SECTION

BASKETBALL - RUGBY - SOCCER CROSS COUNTRY RUN

BASKETBALL

The School Teams.

After much practising the A and B teams were finally decided upon. Only one outside game against another secondary school has been played so far. This match, which was against Hamilton, proved a disappointment, the A team losing by 19-14, the B team by 22-10. They were good games, however, both players and spectators enjoying them.

House Teams.

Competition basketball between the four Houses has been keen, each team trying to gain for its House extra points. Hinns started well but both Seddon and Wellesley crept up till, at present, Wellesley with a total of 95, is ahead by 14 points.

Saturday Teams.

The school is represented in Saturday basketball by six teams, who uphold the sporting name of the school. We have had the honour of having several of our second and third grade players chosen to practise for Auckland Representative Teams.

FOOTBALL

FIRST FIFTEEN (Second Grade)

(Coach: Mr. Titheridge)

The First XV, started the 1935 season full of enthusiasm and hope, and, after working themselves up to concert pitch for the first game, were disappointed that Mount Albert had to default owing to an epidemic. The first game against Takapuna Grammar First XV, resulted in a draw. The game was played on a field which would be better described as a "mud-pool," our points coming from a try by Sergeant in the second half.

The following match against the strong Auckland Grammar XV, was lost, 24-5. The half-time score was 8-5, but Grammar piled on the points in the second half. An even heavier defeat was sustained from the same team the next week, the score being 33-5. What might have been a win against King's College saw a narrow loss of 1-0, owing to the absence of Findlay and McLean. Carr is to be commended for his display as half-back on that occasion.

A much better display was given against Mount Albert. At half-time the score was 6 all, and within a few minutes from time each side had added another try, making the score 9 all. Then Mount Albert broke away and, from a handy position, a field goal was drop-kicked by our opponents, leaving the final score, 12-9.

The Hamilton Visit.

This game was played on a Wednesday, when the whole school witnessed the rather sad defeat of their team by the visiting side. Losing the toss, we played the first spell against the strong wind and did not remarkably well to keep the score to 5-0 at half-time. The spectators thought that the College team would snatch a victory in the next half. However, our coach knew differently, as the heavy opposing pack were gradually wearing down our lighter forwards. Our coach, therefore, was not surprised with the final score of 19-0. The team left the field feeling that they had not given of their best, but it was just another case of lack of stamina among the younger members of our team.

The final competition game was played against Takapuna Grammar. Peculiarly enough the game again resulted in a draw, 9 all. Had the defence of our backs been up to standard, a different tale might have been told. The College team fought hard at the finish to pierce the defence, but it held till the whistle blew to close the 1935 season.

First XV.—Criticism by Coach.

Backs—

Findlay, 1st five-eighth.—Captain throughout season. Nippy—has a beautiful side-step and sound defence. Could use his authority more.

Tweedie, centre three-quarter.—Defence improves a great deal during season. Runs his wings nicely into position. Captained team very ably on two occasions.

McLean, half-back.—Perhaps the best half since Aro. Always does the right thing at the right time.

Should practice passing the ball from the ground. Wiles, 2nd five-eighth.—A very promising first year. Strong on both defence and attack. Should learn to be a little quicker off the mark.

Jensen, wing three-quarter.—Plenty of dash—a great opportunist. A little on the light side. Could tackle lower.

Emus, wing three-quarter.—Showed a great improvement during season. Running with much greater determination. Should move up on his man on defence and tackle low.

Thompson, full-back.—A greatly improved player this year—until the last few matches! Tackling, fielding ball, and line kicking were all very good until that first slip. Then nothing went right. A little more confidence is essential.

Thorpe, 2nd five-eighth.—A good man gone wrong. Quick on his feet, with an excellent side-step—but a very poor pair of hands. Should glue his eyes to the ball when taking a pass, and to the legs of the opponent when attempting a tackle.

Irving, five-eighth.—Another very promising first year. A hard man to stop when properly moving. Should slip a little quicker into the openings, and strengthen up his defence.

Forwards—

Manning.—Developed into an excellent break-away. Also good in the line-out. Might help his backs a little more on defence.

Ozich.—A hard worker in the tight, and follows up well. Still a little too inexperienced to take advantage of every opportunity.

Sergeant.—Particularly good in the loose, but is inclined to shirk some of the harder work. Should also read up the off-side rule. An excellent opportunist.

Anderson.—A good front-row man, but is seen too frequently behind even the back-row men. Is not a centre three-quarter and should remember this.

Carr.—The best first year forward for weight we have had. The keenest member of the team. Another stone or two and he will be a world-beater.

Moon.—Another first year, and a most promising looker. Will learn more of the tricks of the trade with experience.

McPherson.—Still another first year. Has a long reach and makes use of it in the line-outs. Particularly fast on following up, and gets his man. Occasionally gives evidence of lack of experience.

Taylor, H.—The hardest H-worker in the team. Says little but does a great deal.

Taylor, J.—Has a useful pair of hands in the line-outs. In the tight should keep his eye on the ball and see that his half-back gets it.

Massicks.—Came to our aid when in great need, and made good. Particularly keen. Will develop into a powerful scrummer.

SUCCESS OF OLD BOYS' XV.

The College offers hearty congratulations to the Tech, Old Boys' Senior Team on defeating University in the final of the Jubilee Cup.



FIRST FIFTEEN.

Back Row: H. Emus, J. Carr, I. Manning, A. Wiles, H. Taylor.
Second Row: A. Thompson, H. Irving, K. Massicks, O. Ozich, M. McPherson, J. Taylor.
Sitting: Mr. B. Thieridge, N. Sergeant, A. Tweedie, A. Findlay (captain), V. McLean, J. Jensen, O. Thorpe.
In Front: J. Anderson, A. Moon.
—Photograph by Alan Blakey.



SECOND FIFTEEN.

Back Row: E. Andrews, E. Erno, G. Woolley, A. G. Anderson, B. White.
Second Row: J. McKinnon, H. Irving, M. McPherson, K. Massicks, I. Clarke, N. Scholback.
Sitting: Mr. Woolley, J. Anderson, S. Wallace, M. Lund (captain), C. Thorpe, A. Wiles, H. Stevenson.
In Front: H. Farnell, W. Williams.
Absent: L. Wallace, C. Allen, C. Claskie.
—Photograph by Alan Blakey.

SECOND FIFTEEN.

(Coach: Mr. Wooller)

The 1935 season is over and what a season it has been. Thanks to one of the sweetest winters which we have experienced in Auckland for some years, more often than not grounds were not available for practices, and many Saturday competition matches fell through thanks to the weather.

The Second Fifteen played in the A Section of the Third Grade, meeting in turn Auckland Grammar A, Auckland Grammar Colts, and Mount Albert Grammar A. Starting off with a strong team we beat Auckland Grammar A, 9-6, but, following this match a number of boys left the team to fill vacancies in the First XV. The remaining two matches against Grammar A resulted in a loss by 3 points only each time. Against Grammar Colts who did not suffer a loss during the season, the Second XV. put up a valiant fight but was beaten in all three games, the scores being 17-9, 17-0, and 20-3. Only one game was played against Mount Albert A, and, thanks to a field goal by Mount Albert, we were beaten by 7-3.

Had the Second XV. been able to retain the team which it started with, it is possible that it would have won all of its matches. A glance at the First XV. photograph reveals the fact that nearly half of the team belonged originally to the Second XV. As it was, most of the matches were lost by a very narrow margin. Although it has been a struggle at times to get a team out, all matches were played, and the members of the team have derived plenty of enjoyment and exercise in their efforts to vanquish their opponents.

Among the backs S. McL. Wallace proved outstanding, whether as a very sure full-back or a thrustful first five-eighths. Lund led the backs well from the scrum, while, at times, Irving played remarkably good football. During the season great improvement was shown by Woolley, Allen, and Stevenson in backs, while in the forwards White, Caskie, and Anderson always followed up well.

The Hamilton Match.

On the 7th of July, the Second XV. played the second team of the Hamilton Technical High School on the Outer Domain. Our team was strengthened by the presence of three good forwards from the Fourth Grade Team, Andrews, Williams, and Farnell, who made up for their lack of weight by their ability to follow up fast.

S.M.T.C. played against a very strong wind for the first half, and, thanks to the steadiness of Wallace at full-back, just managed to keep Hamilton out. Half-time came with no score and, with instructions from the coach to kick high with the wind and follow up fast, we piled on the score. Wallace had been shifted up to first five-eighths to assist the attack, and the result was that five tries were scored, one only being converted by Woolley owing to the difficult wind. The match was thus won, 17-0.

Team—Lund (captain), S. Wallace (vice-captain), Woolley, Thorpe, Irving, Allen, Stevenson, Schellack, White, Anderson, J. Anderson, A. Erze, McKinlay, Clarke, Maseicks, McPherson, Andrews, Farnell, Williams, Caskie, and L. Wallace

FOURTH GRADE

(Coach: Mr. Webber)

Team: Harris (captain), Hamblyn, Boag, Selwyn, Osborne, Finlay, Walbran, Bolton, Spalding, Williams, Andrews, French, Parnell, Gladding, Savage, Kennedy, McKinlay, Thaugeland, Shaw.

Summary of Games: Versus Sacred Heart, lost 13-0. Versus Takapuna, won 8-6. Versus Auckland Grammar, lost 23-3. Second Round, versus Sacred Heart, lost 12-0. Versus Takapuna, won 16-0. Versus Auckland Grammar, lost 35-0.

At the beginning of the season we entered two teams, A and B, but later had to withdraw the B team owing to shortage of players.

Our first game found us rather ragged and not very fit as wet weather prevented us practising consistently. Sacred Heart's backs found little opposition, and the score soon mounted up in the second spell.

The match with Mount Albert Grammar was rather a disappointment as several of our boys could not play, and, for the first spell, we played with one man short. In the second spell, however, playing with a full team, we managed to keep them from our line, the whole team working with combination.

Against Takapuna we were more successful. The first match we played against them was cancelled owing to the other teams in the grade not playing because of wet weather. In the replay a hard fought game ended in a win for us by the narrow margin of two points.

We found in Auckland Grammar a harder proposition than had been expected, and their fast backs and superior combination soon made the result obvious. In the second round match with this team we played with a cricket team owing to an incorrect report on the wireless; this accounted for the cricket-like score.

Although not very successful in the Saturday games, the team kept together and we had a very enjoyable season.

SIXTH GRADE A TEAM

(Coach: Mr. McKillop)

Team: Riddell (captain), Williams (vice-captain), Leaming, Taylor, McCook, Brady, Lucas, Hart, Crowder, Callinan, Dunn, Dent, Jones, Ayson, McDonald, Mudford, Fuller, Wright.

The Sixth Grade A Team had a successful season this year, due mainly, to the able coaching of Mr. McKillop.

The best forwards were Riddell (who led the pack), Leaming, and Taylor.

The backs improved as the season progressed. Brady, Jones and Williams made a very good attacking combination. McCook at centre showed very sound defence while McDonald and Lucas ably supported him on the wings. Hart, as a rule, filled the difficult position of fullback well.

Mudford, arriving late in the season was a real "find".

In the practices we played 6B and 5B, usually beating them. When we played 4A we were unlucky to lose, the score being 6-3.

We finished the season as runners up to Auckland Grammar.

Mr. Brooke's services as photographer were much appreciated.

Games Played.

First Round—Versus: Grammar, 6-3, lost; Sacred Heart, 15-0, won; Otahuhu, won by default; M.A.G.S. 11-3, won; Takapuna, 9-3, won.

Second Round—Versus: Grammar, 3-12, lost; M.A.G.S. 6-0, won.

Won 5, Lost 2, Points for 44, points against 21.

B TEAM.

(Coach: Mr. Brooke)

Team: Thompson (captain), Morris, McCulley, Stone, Ash G. Griffin, Ellis, Wright, Ash T. Crowther, Fuller, Goff, Schischka, Swanberg, Schofield, Rowe, Brigham, Elvey.

Summary of Games:

Versus: Auckland Grammar B, lost 15-5; Sacred Heart, won 8-0; Mt. Albert Grammar C, won 6-5; Auckland Grammar C, won 7-4; Mt. Albert Grammar B, won 21-0; Auckland Grammar B, lost 17-0; Mt. Albert Grammar C, lost 9-6; Auckland Grammar C, drew 3-3.

In the first match against Auckland Grammar B we rallied only twelve players. The weather and ball were too wet for back play, but the forwards played well.

The Sacred Heart game showed good play by the backs and forwards alike, as the weather was fine and a few more good players had rallied to our banner.

During the rest of the matches we experienced good weather and the play on the whole was much improved. At the close of the season, we had scored nine points, making us runners up in the B grade championship.

5th. GRADE A TEAM.
(Coach: Mr. Drako)

The Fifth Grade A team started off with bright prospects this year, but suffered very badly from boys leaving school and from injuries. Apart from the second game against the final champions, Sacred Heart, a very creditable showing was made. The following were regular members of the team: Backs—Rosenfeldt (captain), Brown, Wilson, Jones, Hayter, Perry; Forwards—Stephens, Tindie, Burgham, Morrison, Archibald, McAlpine, Williams, Gladwell, Johnston. In addition the following players took part in several matches before they left: Yates, Howard, McNamara.

The results of matches played was as follows: Versus: Sacred Heart, lost 5-3; Takapuna Grammar School, won 18-0; Mt. Albert Grammar School, won 6-3; Dilworth, won 36-0; Auckland Grammar School, lost 7-4; Sacred Heart, lost 0-23; Mt. Albert Grammar School, won 5-0; Auckland Grammar School drew 3-3; Auckland North Primary reps., won 18-0 and 8-0.

Won 6, lost 3, drawn 1; points for 192, against 47. The best games were those against Auckland Grammar. In both matches an intensely interesting game was played. The keen defence of both teams kept the score down, and, though Technical scored a try in each match, Grammar won the first by means of an excellent field goal, and drew the second by means of a penalty kick. In the first match against Sacred Heart both sides played excellent football. In the second match our team was disorganised owing to injuries, and the Sacred Heart backs played brilliantly and scored wherever a gap was found in the defence.

Among the backs, Rosenfeldt proved to be a very cool and safe fullback. When he was on the injured list, Brown made an excellent showing as a budding Nephie, and deserves praise for his fine play. Jones and Brown were dealing wings, and Wilson, on centre scored some excellent tries, that against Auckland Grammar in the last minute of play, being a fine effort. Yates at halfback used the blind side effectively at times. Among the forwards, Archibald and McNamara, were brilliant, and the former at all times played as a real forward should, both in the tight and in the loose, inspiring the other forwards. Morrison, Nicholls and Johnston also played very well.

Most points were scored by Wilson (5 tries), Archibald (4 tries), McNamara (4 tries), Brown (2 tries), Jones (2 tries), Impney (2 tries), Yates (2 tries), Rosenfeldt (1 penalty and 4 conversions), and Hayter (8 conversions).

SEVENTH GRADE
(Coach: Mr. Adams)

The Seventh Grade team of 1935 did not come up to the expectations anticipated at the beginning of the season, nor did its achievements compare very favourably with those of its predecessors. The team consisted of some very good players, but unfortunately of a few whose limitations were very great. The forwards, on the whole, were a hard-working pack, but their lack of weight told sadly in a tight corner. The backs were rather sluggish, but their combination and tackling improved considerably towards the end of the season. The members of the team should not be discouraged; their efforts were always praiseworthy, and the good spirit in which they played was a credit to them.

The team consisted of the following:—Forwards: Brockton, Brittain, Barry, Wakefield, Dainty, Mossien, Mason, McLean, Green, Eason, Tucker (captain), game of the season, McKay, Johnston, Norris, Skene, Skene, Buck, (also Thomson, King and Dempsey, for part of the season).

SOCCER
INTERMEDIATE ELEVEN
(Coach: Mr. Stewart)

This year saw the entry of "Soccer" teams in the Secondary School Competitions, after an absence of several years. The Intermediate team did very well to finish up the season as runner-up to Mount Albert Grammar.

The team comprised:—Pratt (goalkeeper), Healy (right fullback), Sprowl (left fullback), Parris (right half), Baldwin (centre half), Wright (left half), Bainbridge (right wing), Stevenson (inside right), Goodall (centre forward), Sutcliffe (inside left), Rutledge (left wing).

In the first round the team defeated Auckland Grammar, 2-0. In the second game the team was defeated by Mount Albert, 3-0. The following match was a draw 1-1, with Takapuna Grammar. In the second round all the games were victories, except a draw with Mount Albert Grammar, 2-2.

During the season the team was visited by Hamilton Technical College. This resulted in a change in the team. Crabb and Young, who were Juniors, being given a game. Right from the kick-off Hamilton attacked vigorously, but the Auckland fullbacks, Healy and Sprowl, repelled these attacks and Healy's strong kick made openings for his forwards. But, in spite of the fullbacks' good play, Hamilton scored two goals in the first half. Stevenson then broke away twice and on each occasion passed to Bainbridge, who scored two of Auckland's goals. The other goal was scored by Crabb and Sutcliffe, who bumped the goalie into the net. Hamilton also scored another goal in the second half, and the game finished in a manner satisfactory to both sides—a draw, 3 all.

During the season all five forwards played well. Bainbridge, Stevenson and Sutcliffe had a good combination, which resulted in the scoring of most of the goals. Goodall was the centre forward towards the end of the season. He was slow but tried hard. Rutledge, the left wing was good at short passing, but did not have a very strong kick. Baldwin held the team together very well. Wright at left half was small but a good tackler. Parris was a spoiler. Baker was a fairly steady right-half. Healy and Sprowl proved strong defenders, the former being very consistent. Although the goalkeeper, Pratt, was inclined to take risks at times, he was generally safe.

In the knock-out series, held at the close of the season, S.M.T.C. Intermediates beat Auckland Grammar, 3-0, in the semi-final. In the final game against Mount Albert they were defeated, 3-1.

Congratulations are extended to Bainbridge and Stevenson (Intermediates), and Crabb (Junior captain), who were included in the Auckland Junior Repr. for the Secondary Schools Soccer Tournament, held in Auckland this year.

JUNIOR ELEVEN
(Coach: Mr. Maloy)

After a lapse of two or three years the soccer code was brought back into the College. This revival was heartily welcomed by a great number of the boys, enabling two teams, namely an Intermediate and a Junior, to be fielded. The Junior team was successful in passing through the championship without a loss. The only point which they dropped was in a draw with Mount Albert A.

Winning our section of the championship we played off with the B division leaders—Kowhai—as the last game of the season. This resulted in a win by two goals to one, making S.M.T.C. winners of the Junior championship.

The team comprised:—Graham, goalkeeper.—Though a little small for a custodian, he proved to be a great help to the team by bringing off many effective saves throughout the season.

Lord, left fullback.—Except for being a little unsteady in the early stages of the game, he proved to be a spoiling defensive back.

Hill, right fullback.—This player relieved many attacks by his strong tackling.

Bain (Vice-captain), right half.—A good positional player, with a sound knowledge of the half-back game.

Young, centre-half.—Although a good player he is inclined to wander a little too much from his position.

Dainty, left-half.—He showed his ability as a good constructive player.

Agar, right wing.—A fast wing, with good ball control, who sent across many good centres.

Wallace, inside right.—Is a hard worker but plays too far ahead for an inside forward.

Crabb, (captain), centre-forward.—In this position he has shown prominence as a consistent goal-getter, and received willing support from his inside forwards. (He was always delighted when the ground was in a muddy condition.)

Hannam, inside-left.—A very tricky and steady player, but occasionally wanted too much of the ball.

Redgrave, left wing.—Although useful as a left wing, his kick was not very strong. This caused many effective forward attacks to be spoiled.

Bond (reserve), left-half.—He played early in the season and played fairly steady games.

Summary of the games played: Versus Mount Albert B, won 3-0; v. Northgate High, won by default; v. Mount Albert A, drew 1-1; v. Auckland Grammar, won 2-0; v. Mount Albert A, won 3-1; v. Auckland Grammar, won 6-1; Final, v. Kowhai, won 2-1. Number of games played 7; won 6; lost none; drew 1; goals for 30; goals against 4.

CROSS-COUNTRY RUN

The annual steeplechase was run on the afternoon of the 1st of October. Owing to the fact that rain fell heavily during the morning, it was uncertain right up to one o'clock whether the race would be held, but the "powers that be" decided that the weather would be propitious, and accordingly the Junior section set off from the Domain pavilion at 2 pm.

Excellent finishes resulted in all sections. In the Intermediates special congratulations are due to M. McAlpine (Hindley), who secured fastest time from scratch, and in the Seniors to C. Thorpe (Hindley) who performed a similar feat. In fact, it was Hindley's day for the winners of all three sections belonged to that House.

As this year's run is the third over the new course which was first used in 1933, records can now be declared. In all sections the times established in 1933 have proved to be the best.

RESULTS
SENIORS

1st.—N. McInven, W. I. (Hindley).
2nd.—K. Fish, A. E. 3 (Wellesley).
3rd.—R. Ayson, T. 1 (Binns).
Fastest Time: C. Thorpe, E. 3A (Hindley), 20min. 55secs.
Record: D. Mitchell, 19min. 55secs., 1933.

INTERMEDIATES

1st.—M. McAlpine, A. 2B (Hindley).
2nd.—C. Wells, W. 2 (Binns).
3rd.—A. Savage, A. 2A (Wellesley).
Fastest Time: M. McAlpine, A. 2B (Hindley), 21min. 18secs.
Record: I. Jensen, 21min. 7secs., 1933.

JUNIORS

1st.—S. Howe, E. 1C (Hindley).
2nd.—K. Morrill, A. 1A (Binns).
3rd.—M. Smith, A. 1 (Wellesley).
Fastest Time: D. Tucker, M. E. 2 (Binns), 22min. 18secs.
Record: G. Kent 21min. 49secs., 1933.

HOUSE POINTS

House	Senior	Intermediate	Junior	Total
Binns	28	61	87	156
Hindley	105	61	49	215
Seddon	52	61	60	153
Wellesley	55	57	44	156

CITY AND GULDS OF LONDON

Successes in Electric Engineering Examinations. Grade I. (Direct Current).

Bell-Booth, M.	Luckens, F. S. D.
McAlister, J. P.	Murray, S. J.
Nicholls, L. G. T.	Reynolds, A. H.
Rowe, D. H.	Rowe, L. G.
Taiton, H. H.	Taylor, J. B.
Taylor, R. E. C.	Thaughland, C. C. P.
Wallace, L. R.	

(Grade II. (Direct Current).

Carlaw, A. D.	Tweedie, L. E.
Combs, C. T.	Taylor, J. B.
Corbett, J. M.	McKenna, J. L.
Grant, E. W.	Hansen, I. C.

Grade II. (Alternating Current).

Butcher, G. E.	Hansen, I. C.
Combs, C. T.	Parlier, A. W.
Grant, E. W.	

SWIMMING ACTIVITIES

The lecture in the Hall, followed by a demonstration at the baths by Professor D. B. Anderson given at the beginning of the year provided an inspiring start for the year's swimming activities. We would like to make it our objective that no boy or girl leaves the College unable to swim. The value of swimming to New Zealanders should not need emphasising, but the remarks of Coroners at inquests on drowning cases show that to neglect opportunities for learning while young amounts to almost criminal neglect. On the other hand, reports of gallant rescues by swimmers have frequently appeared in the newspapers. For self-preservation, therefore, as well as for life saving, every boy and girl should learn to swim. Professor Anderson, at a second demonstration, showed how essential it is for learners to breathe to learn correctly. On this occasion, boys who might be classed as non-swimmers were put through some of the exercises demonstrating correct breathing, buoyancy and the first natural swimming strokes. These were performed with ease and smoothness and showed how unnecessary are the struggling efforts commonly associated with learning to swim. Professor Anderson's methods show the way to new joys in the water, properly trained. These methods will be used in training the boys in the swimming squads and we would urge all beginners to join the Swimming Squad when the opportunity offers.

HOUSE NOTES

BINNS HOUSE - GIRLS

Senior House Mistress, Miss Cambridge; Junior House Mistress, Miss M. G. Anderson; House Captain, Connie Waters; Committee, Olwyn Darby, Nora Macdonald, Betsy Stratton, Eunice McKenzie, Dorothy Lloyd and Joan Atkinson.

Was it the vocal support or the great efforts put forth by the swimmers that raised Binns House to her elevated position of top House as far as swimming is concerned? Whatever the cause, we proudly claim the honour. Our House Captain, Connie Waters, was senior champion, with Olwyn Darby runner-up.

At the athletic sports our House came second, with 93 points. Margaret Gow was winner of the junior championship, and Binns annexed the titles for the senior overhead ball, senior circular ball and junior flag relay events.

With the coming of the basketball season we really hoped that we should find the opportunity to distinguish ourselves. Although we started off well and were even leading in the competition for the Basketball Cup until the last two matches, our teams were considerably weakened towards the end of the season and our lead diminished. We all agree, however, that even though we did not flash up top House, we had a jolly good season, and enjoyed our matches.

In the school teams, which played Hamilton Technical High School, Binns was well represented; in the first team by Olwyn Darby, Connie Waters and Margaret Gow, and in the second by Nora Macdonald and Berta Oliphant, with Jean Bright as a reserve goaler.

BINNS HOUSE - BOYS

Housemaster, Mr. L. M. McKillop; Assistant Housemaster, Mr. E. C. Woolter; House Captain, A. N. Thompson.

We are not as far up in the House Competition as we would like to be, but if we keep progressing we will be sure of a high place, as there are still many points to be "picked up," and Binns House has the calibre to get those points. So here's hoping for a successful year.

In the House Shield Competition our sports activities have been as follows:—

Swimming—Again this year swimming proved our "weak link," although we produced the junior champion, in T. Jones, who "broke" several existing school records. Anderson, although against strong opposition, proved a good swimmer in his class.

Athletics.—This sport is always our mainstay, but this year we were handed the "wooden spoon," mainly through the stars of the House leaving.

Rugby—Our House XV. has suffered through the great number of boys playing for the school teams, but, as points are secured by every boy who plays in a Saturday team, this again should make up some of our leeway.

Cricket.—With half the season gone we are now settling down for the final round, and this is our strong point. Every fourth Tuesday will be the boys who practice with the school teams will be with us to do "yeoman" service for the House.

HINDLEY HOUSE - GIRLS

House Mistresses, Miss M. Altchison, Miss D. Henderson; Head of House, R. Tilly; Committee, R. Corbet, F. Woodward, B. Blakey, M. Black, M. Debrooke and J. Hicks.

We have taken the usual part in the year's activities, gaining several individual championships. At the annual swimming sports held early in the year, we managed to secure third place. The splitting up of the girls into senior, intermediate and junior divisions made the competition in every division much more enthusiastic and keener. Our junior relay team secured first place. In the athletic sports, held a month later, we shone more brightly, Hindley members securing the senior and intermediate championships, and the place of runner-up in the junior championship. Thus we gained first place in the athletic sports. The House won both the senior relays and did nearly as well in the other divisions.

At tennis we maintained our high standard of last year, and hope to progress further in the third term. At basketball we have been unfortunate in losing quite a number of our better players, but we still follow the slogan, "If at first you don't succeed, try, try, try again!" Jiu-jitsu girls have made great strides in this branch of sport, and have won distinction for the House.

The year, as a whole, has been encouraging, and it is our hope that next year will find us once again entering into the sporting life of the College with renewed zest and enthusiasm.

HINDLEY HOUSE - BOYS

Hindley House has endeavoured, with the material at its command, to provide keen competition for the other Houses, and what it may lack in ability in any sport, it makes up in enthusiasm. The number of boys from Hindley House leaving school to become leaders of industry (eventually), has been greater than ever this year, which only serves to show how quality is recognised by those looking for expert assistance! Deprived of the help of so many good players in cricket, swimming and football, the others have had to work all the harder and have done yeoman service. It seems as if the prospects of carrying off the House championship are not so bright as they were at the beginning of 1935, but our motto is, "Never despair!"

The worthy efforts of Wallace at swimming, Thorpe, Jensen and Carr in athletics, and numerous others at Rugby, deserve special mention, but all have done their best to keep Hindley's colours flying.

DID YOU KNOW THAT . . .

University students in Budapest have opened and are operating a bakery to pay for their education. . . .
 Haverford College has a school for janitors, with eleven students enrolled. . . .
 New York University offers Personality Development. . . .
 Southern California, cheer-leading. . . . Temple University, etiquette. . . .
 University of Kansas, fishing. . . . State University of Iowa, Problems of Married Life. . . .
 Purdue University, Bridge. . . .
 and it would take 693 years for one person to complete all of the courses now being offered by Yale University.



5th GRADE A RUGBY XV.
 Standing: R. Peery, B. Morrison, A. Wilson, B. Nicholls, L. Stephens, J. Gladwell.
 Sitting: Mr. Drake, N. Impey, M. McAlpine, A. Archibald, F. Rosenfeldt, Captain, D. Hayter, N. Williams.
 In front: T. Tindle, C. Brown, A. Burgham.
 Inset: D. Jones.
 —Photograph by Alan Blakey.



SIXTH GRADE A—RUNNERS-UP OF GRADE.
 Back Row: Dunn, Dent, Ayson, Brady, Taylor, Thompson, Mr. McKillop.
 Middle Row: Lemming, McCook, Riddell (captain), Williams, Lucas, Fuller.
 Front: Mudford, Crowder, McDonald, Hart.

SEDDON HOUSE - GIRLS

Senior House Mistress, Miss Boynton; Junior House Mistress, Miss MacCormack; Committee, Dorothy Mansfield (head of House), Cecil Cantlay, Vida Tonks, Florence Ross, Thelma Oakes, Marjorie Butler, Joyce Cressay, Gretha Clegg, Lorrie Gallagher, Maisie Conner.

This year Seddon has shown a distinct improvement in most sports, and, although we have had quite a few losses, we have taken them always with the thought, "May the best man win through."

Despite the hard times Seddon's financial position has been very sound, and near the beginning of the year, answering the call for aid, we gave £5 to the Crippled Children's Fund. Members have been helped financially in buying School Magazines, and also in attending several of the concerts which have been held in the school.

Our committee is sadly depleted, many of its members having left the school in order to obtain positions.

A special vote of thanks must be rendered to Miss L. Anderson, who has so kindly taken Miss Boynton's place at basketball, as Miss Boynton has been assisting in the jiu-jitsu classes in which Seddon girls top the list for numbers.

Although at the athletic sports our prowess was "conspicuous by its absence," we came second in the swimming sports, which was due mainly to the fact that we had Grace Priestley and Eunice Black in our midst. In tennis and basketball we have a number of girls in the first teams, which goes to prove that we may not be marvellous in everything but we are at least enthusiastic and do our best.

SEDDON HOUSE - BOYS

Housemasters, Messrs. Carnachan and Brooke; Captain, R. Stevenson, vice-Captain, A. Tweedie; Committee, Box, Finlay, McLeod, Woolley.

This year Seddon House has had the honour of winning the House championships at both the swimming and the athletic sports. Our victory in the former was mainly due to persistent determination and the efforts of Finlay, Wiles and Harrison. In the athletic sports Harrison succeeded in annexing the junior championship title, with Shellack a close second. Harrison was our best representative in the intermediate championship, and finished runner-up. McPherson, Manning, and Woolley won individual titles in the high jump, the 50 yards hurdles, and the 80 yards, respectively. In the senior championship we had Stevenson, the runner-up who gave the winner a close run. Tweedie succeeded in lifting the mile title. We were also ably represented in the handicaps, as follows:—100 yards, under 13, Patterson; high jump, under 15, Chisholm; long jump, over 15, Finlay; 120 yards hurdles, open, Stevenson; 1 mile, open, Tweedie. Woolley with a super-human effort broke the record for the shot put. Chappell was our crack cycling enthusiast, and won the mile championship. Proof that practice was worth while was triumphantly demonstrated by the convincing manner in which we won all three tugs-of-war. This was due to the effort made by Mr. Leves, to whom we give our heartiest thanks. In the other team events—the relays—we gained first place in the junior, and second in the intermediate and senior. However, the day was carried by the enthusiasm of the boys, spurred no doubt by the thought of the Stevenson Cup, and we again thank Mr. Stevenson for giving this trophy to cultivate keenness and enthusiasm in the House.

In the Secondary School Athletic Sports we were well represented, and those who achieved the honour of a place in the team did credit to the College. Among those successful were Shellack (440 yards, junior), Woolley and Manning (440 yards, intermediate), Tweedie (1 mile, senior), while Harrison and Wilson participated in the most spectacular win of the day—the junior relay.

The House has always helped largely in the school activities on Saturday mornings, being well represented in the First and Second Fifteens and Soccer and cricket elevens.

WELLESLEY HOUSE - GIRLS

Senior House Mistress, Miss A. A. Stubbs; Junior House Mistress, Miss Irving; Senior House Captain, Anna Irvine; Junior House Captain, June Greenwood; Committee, Esther Moss (deputy captain), Minnie Voice (secretary), Esma Amos, Nancy Noall. This year for Wellesley House has been relatively uneventful in so far as the athletic and swimming sports are concerned, although we attained third place in the athletic sports, gaining 91 points. Of these, many were won by Mollie Mullins. We also have several enthusiastic girls who have completed their one mile swim at the Parnell Baths.

We have every hope of winning the basketball cup (for the third time) as we are a number of points in front of the other Houses, with only one week to go. And we may pride ourselves on having enough girls for about ten teams, while some of the other Houses have only enough for about seven or eight teams.

During the second term our former captain, Mollie Mullins, left. Although we miss her we must realise that the position she now holds is more important to her in her future career. Her place has been taken by Anna Irvine, who fulfills her many duties admirably.

WELLESLEY HOUSE - BOYS

At the first meeting of the House in Room 16, there was much speculation as to the abilities of the first year boys. The recruits proved to be very enthusiastic and sturdy, and gallantly strove to assist the few remaining seniors in upholding the honour of the House. The Housemasters are Messrs. Wood and Stewart, who, under the circumstances, did exceedingly well with the material they had at their disposal.

Following is a list of the activities of the House:—Swimming.—The House gained third place in the swimming sports, which was due mainly to the excellent effort of Pascoe, who won the senior championship.

Athletics.—Third position was gained by the House in the athletic sports. Emus, by winning the 220 yards championship after a magnificent run, was most likely the greatest surprise of the day. He repeated his success by winning the 440 yards championship. In the relay races and the tugs-of-war we were not prominent though we did our best. (Here Seddon should be congratulated on their House spirit, shown by their concentrated training.)

During the first term we scored moderately well although once again it was evident that the House lacked senior members.

In the football term we were beaten by Seddon. Binns managed to defeat us by a narrow margin, but we had our revenge by defeating Hindley comfortably.

Representing the House in the First Fifteen are Emus and Masicks, while prominent among the welders of the willow are Lund and Emus.

Technical High School Courses

The "Seddonian" is very widely read, this issue going to more than 1200 homes. Among our readers are past and future students, and it has been thought that some outline of the nature and objects of the courses of instruction now given at the college, will be of interest.

The Technical High School this year enrolled over 1370 pupils who had completed their primary school education. It is staffed by a full-time staff of 47 highly qualified specialist teachers and controlled by a Principal and Four Heads of Departments. Included in the staff are a male and a female physical culture specialist, each devoting full time to health work in which they are assisted by Dr. J. Fitzsimons, an Auckland practitioner and Mr. W. A. Taaffe, a leading optician. The staff experts carry on a continuous search for physical defects, in addition to regular physical development classes. Gymnasium work has reached a high standard, and in addition the health of the pupils is assisted by a system of organised games—football, cricket, tennis, basketball or swimming, on Tuesday afternoons. The School is divided into four Houses (Binns, Hindley, Seddon and Wellesley), and continuous competition through the year enlists a spirit of healthy rivalry in these games. Further, there is a large number of teams engaged under staff supervision in Saturday Inter-school games. There is little that has been left undone on the physical side of our work, but we have still in prospect the development of a health camp on an inland site, where special work among those who are under-developed may be carried on by the physical instructors in holiday periods.

Competing with physical work in importance, is the development of character. Pupils are received from the primary schools at a most important age. New Zealand is in this respect out of line with most other countries, and it is generally agreed that the transfer should take place at 11-12 years of age. It is almost essential that pupils should be under the same control during the years 12-16. There will be proper time, then, for careful and continuous direction of the developing character. The Technical School has a wonderful asset in the natural interest which our type of work has for the pupils. Each pupil can easily place lessons in their proper relation of life's work. His interest is strengthened by the provision of much apparatus, and many parents are not aware of what the Seddon Memorial Technical College has done in this regard. It may be of interest, therefore, to state that in the years 1927-1932 only, the equipment purchased for use in our classes cost over 7,000. We are particularly fortunate in this respect for our College claims to be the best equipped school in New Zealand. In our work we are able largely to remove corporal punishment for we rarely need a spur of this kind. In consequence, honesty and straightforwardness has been put as first objective, in the character training which is a main purpose of secondary work.

The present staff is a young one, keen and well qualified for the work to be done. Each member is responsible for the supervision of the character work of one Form, and it is, therefore, rare that pupils with a wrong moral viewpoint remain long in the College. The School is provided (thanks to the bequests of the late Mr. Binns and the late Mr. Hindley) with one of the best school Assembly Halls in New Zealand. It is equipped with everything necessary for adequate

training in musical and dramatic work. The staff includes experts in art, needlework, electrical engineering, woodwork, radio engineering, music and dancing and our school concerts can, therefore, be productions, that for schools, are considered ambitious.

In another way also the development of character is promoted in a technical college. The varied courses of instruction make it possible for many types of ability to be discovered, and thus we hope to prevent the sad position of young people taking up occupations for which their natural abilities do not suit them. Among educational experts no factor has been given greater attention in the past 20 years. Just as Nature has given the people of the world a multitude of diversified talents, so it is essential that the old type of post primary school providing for one kind of ability mainly, should give way to a new type of school providing varied courses to suit different types of ability. This process is going on in most of the more progressive countries; to force all young people into the same mould and turn them out into the world is now accepted as wrong. Secondary schools throughout the world are, therefore, attempting to provide courses of a more varied nature. This College is fortunate in that twenty years ago it put this principle into its courses. The intervening years have been spent (1) in acquiring and training the necessary specialist teachers, (2) in drawing from overseas and experimenting with new methods of teaching, and (3) in accumulating the absolutely essential equipment. Almost every educational commission of recent years in New Zealand and in the United Kingdom, has praised the kind of course provided in our technical schools. And it will surely be conceded that the development of sound methods of teaching in new types of work, the gathering of specialist staffs and the accumulation of the necessary apparatus can only be done over a fairly long period. That our work is commended locally is evident from our day school enrolments, given below as on 1st March in each year:

1922 598	1933 1,232
1926 800	1934 1,328
1929 1,077	1935 1,372
1932 1,173	

In selecting the post primary school to be attended by their children, parents are frequently actuated by considerations of little educational value. Consequently we consider it of some importance to refer to the principles underlying the instruction provided for the day school pupils.

There are many even among educational experts who do not clearly understand the values which attach to technical work; some are under an entirely wrong impression that in the technical schools attention is given wholly to the training of young people in handwork. It may, therefore, be advisable to explain that there are very important reasons for taking a course at a technical college, if a pupil intends to follow a life for which our school claims to prepare.

(1) In the first place it will be readily agreed that all school work has as its chief value the training of the power to think, in other words the strengthening of



INTERMEDIATE SOCCER XI.

Standing: L. Baldwin, M. Sisco, F. Stevenson, L. Pratt, R. Goodall, H. Bainbridge, H. Baker.
Sitting: Mr. Stewart, G. Sutcliffe, O. Routledge, G. Healy (captain), R. Parris, J. Wright, Mr. Maloy.
—Photograph by Alan Blakey.



JUNIOR SOCCER XI.

(Winners of Secondary School Championship.)
Standing: N. Lord, C. Redgrave, R. Graham, D. Jill, R. Azate, J. Young.
Sitting: Mr. Maloy, H. Dainty, U. Wallace, R. Crabbs (captain), R. Hamman, A. Bain, Mr. Stewart.
—Photograph by Alan Blakey.

powers of the mind. Most school subjects are soon forgotten after leaving school, but they have, nevertheless, served their purpose in strengthening the intellectual powers which Nature has given and life will require us to use. It may be surprising to claim that handwork develops intellectual powers. But there are powers of the mind which can only be developed through work of the kind done in technical schools, and it is these very powers that are essential to success in the vocations for which the technical school prepares. In music it is not disputed that a child should commence as early as possible, but in handwork subjects, some argue that work should be postponed until after the secondary school stage has been passed. Technical school people know that their work must be given as early as possible if the mental powers to which we direct our attention are to be strengthened to the maximum amount possible. It would not be possible to explain briefly the directions in which the boy trained in technical colleges has superior mental capacity for his kind of work over the boy trained in other types of secondary school, but it will be obvious that general work mostly from books cannot develop the power to visualise which is essential in constructive work.

(2) In the second place, handwork skill in itself is a valuable possession whatever the occupation. In the engineering world accuracy to 1-1,000 part of an inch is required, and before long, 1-10,000 of an inch will be demanded. If an engineer is to be capable of developing accuracy of this extremely fine character, it need hardly be explained that long experience and very careful training are necessary in the instructor. Technical schools claim that unless the boy commences before his muscular development has gone far, he will never attain the standard of accuracy required of the efficient engineer. We have seen in our Colleges many students who have commenced too late in life and failed to reach a standard of accuracy which is attained when the boy commences early. Parents whose children delay this work, therefore, are almost certain of failure unless factors outside of the school are sufficient to give the necessary training.

(3) There is another important asset of technical school work in that children are naturally interested in the subjects that are taken. In almost every course a substantial portion of the work is directly connected with an occupation. Most of the equipment has been provided for the purpose of making these classes closely resemble the work of the world. It will, therefore, be understood that the interest of pupils is readily caught, and it should be remembered that no force is more powerful in education than interest.

COURSES OF INSTRUCTION.

Some particulars of the courses of instruction and of the prospects available to the student, are listed below:—

(1) **Agriculture Course.**—In this course the student's time is divided between general school work subjects—English, Arithmetic, History; Sciences which are essential in Agriculture—Botany, Chemistry, Zoology, Agriculture and Dairy Science; Handwork subjects, Woodwork, Metalwork and Farm Mechanics, and practical work in the garden and nursery or on the farm. The Board of Managers has an intensive area situated in Penon Road, Remuera, where boys are given instruction under practical men in the practical work of the garden, the nursery, the poultry farm or the orchard. This work is mostly for the first year students. In the second year the pupils receive instruction on the farm of Mr. W. S. Millar at the

"Span Farm" Glen Eden. Mr. Millar's farm is mainly a pig farm; on it are grown carrots, mangolds, sugar beet, maize, turnips etc. for the food supply. Boys visit this farm periodically in order to have practical experience in connection with the cultivation and the growing of root crops, the management and feeding of stock, and the business organisation of the farm. The boys of the third year classes receive practical instruction in the Auckland City Council's nursery and greenhouses in the Domain.

(2) **Accountancy Course.**—This course prepares boys or girls for office positions, or for the Accountancy Profession. It is a course in which the University Entrance Examination is the ultimate objective. In addition to the subjects required for this examination, pupils receive instruction in Shorthand, Typewriting, Book-keeping. The Technical College course differs from that of the Grammar Schools in that Shorthand and Typewriting are taught to Technical College pupils, while this is not usually the case in the Grammar Schools. Those preparing for business positions should understand clearly that the first examination for the accountancy profession is the University Entrance Examination of the New Zealand University. The Technical College conducts in its day and evening classes all of the work required for professional accountancy, so that if the work be commenced in the day classes it may be carried through to its completion either in the more advanced day classes or in the evening classes.

(3) **The Commercial Course,** is the usual course preparing girls for entry to business positions. The chief object aimed at is the development of accuracy. Lessons in Shorthand, Typewriting, and Book-keeping are given every day, and a full supply of equipment of latest type is provided. At the same time general work in English, History, Arithmetic, etc., and in Dressmaking (for girls) is felt to be necessary. A two year's course will take a pupil of good ability to the stage of the Public Service Commissioner's Shorthand-Typists' Junior Examination and Stage 1, Book-keeping Examination of the New Zealand Society of Accountants. The general work of the class is sufficient to make it possible for them to enter for the Intermediate Examination. For senior pupils who have passed the University Entrance Examination at a secondary school there is a Diploma Course, similar to those of the business colleges, but differing from them in that free places are available.

(3a) **Commercial Art Course.**—This course is intended to provide for artistic girls who take up office work. It is thought that in the future there will be considerable demand for shorthand typists who also possess some of the qualifications of commercial artists. In many offices duplicating work of a nature which will make it a serious competitor with the printing firms is now being done. This work requires artistic gifts, and where children are possessed of such gifts the Commercial Art Course will give them a training likely to fit them for the positions described.

(4) **Domestic Science Course.**—To this course are attracted girls who intend to enter some occupation connected with women's work. All of the needlework trades, artistic occupations, cafeteria or similar work are provided for. The girl is given a sound practical and theoretical training which will thoroughly equip her for entrance to any industry taken up by women. Artistic work is aimed at and, in consequence, considerable time is given to training in good taste. Three specialist art teachers are available. In addition to the art work, Needlework and Dressmaking are given full attention, and for this purpose there is a staff of four needlework instructresses. The cookery work of

COMMERCIAL 1B.

MISS CAMBRIDGE.

Critoph, Norah
Douglas, Joan
Durham, Norman
Davidson, Joyce
Davies, Gwyneth
Dennis, Norma
Davies, Jean
Fowler, Joyce
Fraser, Roma
Finay, Joy
Freith, Elsie
Griffiths, Elsie
Garatt, Patricia
Grant, Moira
Gravill, Joan
Guppy, Joan
Harpin, Nancy
Hawwell, Edna
Hicks, Jean
Head, Avic
Hutchings, Betty
Hill, Mavis

COMMERCIAL 1C.

MR. YOUNG.

MacWilliam, Dorothy
MacCormack, Mercia
McGregor, Dulcie
McKenzie, Isla
McKenna, Mary D.
McIntyre, Joan
McNamara, Patricia
Manners, Kitty
Marson, Loma
Markwick, Margaret
Maosate, Katie
Massey, Gwenda
Massey, Irene J.
Harvey, Winifred
Mattocks, Thea
Metcalfe, Shirley J.
Minola, M. Patricia
Montgomery, Joan E.
Morgan, Gwenth
Mutton, Hazel F.
Nurray, June V.
Neeve, Audrey M.
Nicholson, Joan

COMMERCIAL 1D.

MISS M. E. F. ADAMS.

Ashley, Mgt. Peggy
Crisp, Phyllis M.
Kellow, June P.
Moss, Esther M. I.
Neeve, Dora M.
Nielsen, Valina A.
Sanders, Joan C.
Sandon, Audrey I.
Satebell, Shirley
Savage, Frances
Scott, Mavis G.
Shaw, Noeline L.
Shepherd, Lindsay
Silva, M. Evelyn
Simpson, H. Ruth
Sloan, Gloria M.
Smith, Marjorie W.
Southernwood, June
Spencer, Doreen C.
Stone, Velma C. C.
Stringer, Desma
Stuart, Nellie R.

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COMMERCIAL 2 ART.

MISS L. ANDERSON.

Barnes, Phyllis M.
Baker, Joyce L.
Blakely, Beverley
Candy, Catherine M.
Denchy, Olive
Dent, Lorna
Evans, Eileen
Fatchen, Katha
Finay, Dorothy
Hegh, Audrey
Harnett, Joan
Jameson, Pauline
Land, Rhona E.
Lewis, Rene
Lindsay, Velma
Lloyd, Dorothy
Lockley, Jeanne
Martin, Clare

COMMERCIAL 1 ART.

MISS M. IRVING.

Adeane, Stacey
Barclay, Marie
Brunett, Joan
Cole, Peggy E.
Cambell, Margaret A.
Christie, Zita I.
Clinton, Joan C.
Dewhurst, Myra
Finlay, Olive F.
Grafton, Dorothy G.
Gray, Hazel M.
Griffin, Joan
Hines, Marie W.
Hyde, Georgia
Jameson, W. Mavis
Kuyper, Norma E.
Leticia, Amy R. V.
McAnaney, Elsie B. J.
Robinson, Kathleen
Miles, Jean P.
McKee, Dorothy P.

DOMESTIC COURSE—**DOMESTIC 3.**

MISS W. M. SUTHERLAND.

Amos, Eame
Corney, Elsa
Clark, Exrie
Flyger, Esma
Galagher, Lorimer
McKay, Margery
Minola, Kathleen
Noall, Nancy
Richards, Joan

DOMESTIC 2A.

MR. SCOBIE.

Beckett, Joyce
Drewser, Jean
Buswell, Dorothy
Elliott, Mary
Evans, Lillian
Faulkner, Vera
Flaxman, Francis
Fleming, Norma
Glassey, Mavis
Halford, Joyce
Henley, Myra
Idoine, Mavis
Jones, Dillys
Kerr, Vera
Johnston, Phyllis
McMaster, Betty

THE SEDDONIAN

DOMESTIC 2B.

MISS E. WRIGHT.

Arnold, Dallas
Baldwin, Joyce
Beaton, Hannah
Brown, Nancy
Bond, Mavis
Christensen, Maids
Cowperthwaite, Lorna
Cronin, Aureen
Dunn, Doreen
Farmer, Roma
Flannagan, Leta
Ganley, Joyce
Hare, Jean
Hutchinson, Eell
Jenson, Lauren
Lyons, Shirley

DOMESTIC 1A.

MISS L. R. TODD.

Alderson, Betty
Arthur, Agnes
Abercrombie, Elva
Babe, Marie
Brown, Joy
Cleat, Betty
Carbine, Shirley
Crawford, Margaret
Cherry, Patricia
Corney, Marjorie
Cole-Constance
Dahl, Gean
Dale, June
Day, Manu
Dunn, Aldwyth

DOMESTIC 1B.

MISS MCCORMACK.

Hall, Betty
Henderson, Meryl
Henderson, Joan
Hingley, Mollie
Hoskins, Ethel
Johnstone, Betty
Joy, Gwenth
Kennerly, Phyllis
Kent, Thelma
Kerr, Nola
Korn, Inga
Langton, Lois
Lee, Doreen
Matheson, Betty

DOMESTIC 1C.

MISS M. AITCHISON.

Nogat, Ena
Pelley, Gwenda H.
Payne, Patsie
Perkins, Dorothy
Palce, Thelma
Phillips, Marion
Phillerson, Gwen
Rountree, Margaret
Rabone, June
Reiman, Betty
Reid, Doreen
Ribeary, Mavis
Robinson, Jean
Smith, Valerie

DOMESTIC 1D.

MISS N. BURLEY.

Baker, Yvonne
Binns, Joyce
Curtis, Dawn
Davy, Jean
Faithful, Dorothy
Flashman, Joyce
Kelly, Betty
Maber, Moyna
McCracken, Zelma
McCrea, Shirley
Meehan, Doreen
Miller, Thelma
Neilson, Andrie
Piteavin, Jean
Smith, Valerie

ACCOUNTANCY COURSE—**ACCOUNTANCY 3.**

MR. W. E. BURLEY.

Buswell, H.
Carson, R. A.
Derby, A.
Eliis, A. S.
Emus, I. H.
Perri, A.
Findlay, A. D.
Goodenough, V.
Harrison, E.
Hurst, W.
Kennedy, G.
Leonard, E.
Low, J.

ACCOUNTANCY 2A.

MR. DRAKE.

Gray, Edna
Isbister, Jean
Keegan, Valda
Lockwood, Veda
Bain, A.
Barker, N.
Boyd, K.
Brennan, R.
Brown, C.
Cattow, C.
Clarkson, L.
Cook, A.
Cummins, I.
Dart, G.
Finlay, A.
Gillespie, R.
Greenough, C.
Hallwood, G.
Howarth, D.
Kemp, E.
Gray, D.

ACCOUNTANCY 2B.

MR. THOMPSON.

Armistage, O.
Brady, C.
Callagher, H.
Carter, R.
Cole, S.
Dunster, C.
Greenwood, I.
Grindrod
Hale, V.
Hare, W.
Harrison, R.
Hooper, H.
James, P.
Kellow, I.
Laurie, D.
Leigh, R.
Leitch, W.

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ACCOUNTANCY IA.

MR. McKILLOP

Ash, Doreen
Bryce, Peggy
Iblistler, Florence
Jones, Thelma
Le Long, Camille
Nelson, Norma
Priestley, Grace
Robertson, Sybil
Sawyer, Rona
Simmonds, Frances
Walters, Edna
Lees, Marjorie
Alderton, J.
Allard, A.
Baldwin, L.
Bell, C.
Bonwell, N.
Brumby, H.
Buckler, N.
Carten, W.
Chambers, O.

Crookbain, H.
Crowder, R.
Binstead, J. F.
Davis, G.
Fergusson, G.
Gascolgne, J.
Hall, K.
Harnan, E.
Dunn, W. J.
Harper, J.
Harrison, E.
Harvey, C.
Harvey, H.
Hickey, J.
Hill, D.
Hooper, R.
Johnston, J.
Keegan, H.
Marson, R.
Maskell, R.
Mellis, G.
Morrill, K.

ACCOUNTANCY IB.

MR. CARNACHAN

Blake, C. R.
Brewer, R.
Chisholm, G.
Clarke, G. F.
Claver, E. N.
Gibbs, G.
Midgley, M.
Morris, I.
Mosslen, H.
Munro, J. D.
McKey, L.
O'Dowd, P.
Packer, H. D.
Paterson, N. W.
Perry, R. I.
Powell, W. J.
Prest, L. H.
Farris, R.
Quinton, A. P.
Redgrove, C. W.

Roston, R. M.
Richardson, L.
Rowe, C.
Rowe, E.
Seario, H. W.
Simpson, C.
Simpson, C.
Smithymen, W. K.
Sutcliffe, G.
Thompson, J. R.
Thompson, R.
Tindle, T. H.
Twiname, R. H.
Veitch, G. J.
Wakefield, N. F.
Walsh, R. D.
Webb, W. R.
White, B.
Hooker, J. E.
Perkins, W. C.
Thomson, M.

AGRICULTURE COURSE—**AGRICULTURE 3.**

MR. DAVIS

Binstead, W.
Eviatt, J.
Fish, K.
Gearing, H.
Gribble, A.
Hull, H.
Jensen, I.
Jones, S.

Fooh, V.
Randrup, P.
Ronaldson, J.
Ryan, D.
Reid, R.
Sergeant, N.
Solomon, I.

AGRICULTURE 2.

MR. DAVIS

Abercrombie, J.
Archibald, A. H. P.
Blumhardt, H.
Brulley, N.
Bruning, A. S.
Dickson, A. C.
Farley, P. A.
Greig, G. P.
Guest, K. R.
Hill, C. G.
Hopkins, A. R.
Keesing, A. L.
Lloyd, A. F.
Marsh, L. A.

Munro, D.
O'Gorman, J. S.
Rutledge, O. E.
Smith, C.
Taylor, H. F.
Treblicock, S. A.
Whitechurch, H. A.
Williams, P. H.
Wilson, L. F.
Wootton, C. W. H.
Young, A. E.
Park, J.
Parnell

AGRICULTURE I.

MR. WOOD

Baker, H. G.
Belin, H. C.
Binstead, J. F.
Bright, E.
Byrdon, T. J.
Carroll, N.
Cooney, R. T.
Dunn, W. J.
Erne, E. T.
French, A. J.
Green, R. E.
Grimson, N.
Hamilton, R.
Hannan, R. E.
Hubbard, C.
Humphrey, H.
Mills, G.

Mills, K.
McCully, W. R.
Mudford, N. F.
Nicholls, B. W.
Pender, C.
Sanderson, H. L.
Schubert, N. A.
Short, E. J.
Smith, M.
Smith, W. Z.
Swanberg, L.
Thomson, I. R.
Walker, L. A.
Williams, N. C.
Wilson, D.
Wright, J. L.

ENGINEERING COURSE—**ENGINEERING 4.**

MR. C. M. TAYLOR

Allen, J. A.
Jenks, K.
Morris, F. A.
Parsons, A.
Stewart, C. R.

Tibbets, C.
Wallace, S.
Tesdale, A.
Bentley, S.
Palmer, P.

ENGINEERING 3A.

MR. H. M. SCOTT

Anderson, A. G. T.
Box, D. G.
Burgham, A.
Cannon, A.
Covey, C. J.
Ching, F. D.
Deverick, C. V.
Evans, T. J. G.
Gascolgne, B. A.
Hooker, J. E.
Jamieson, R.
Kennerly, J. G.

McLeod, A. W. C.
McNought, N. J. E.
Massicks, K. S.
Mason, L. A.
Steele, J. T.
Stehr, W. B.
Sandlands, G. V.
Tatton, H. H.
Thorpe, C.
Tweede, A. D.
Woolley, G. A.

ENGINEERING 3B.

MR. TAYLOR

Billings, J. G.
Boles, K. M.
Bundock, E. W.
Clarke, J. H.
Connor, W. J.
Furness, F. G.
Howe, D. B.
Johnstone, D. F.
Kinchant, R.
Luckens, F. P. D.
MacLean, J. R.

Mahon, O. G.
Malyon, W.
Nairn, H. R.
Nicholls, L. G. T.
Rendell, N.
Reynolds, A. H.
Ryland, H. G.
Taylors, J.
Thompson, K.
Thaughland, C.
Nicholsen, H. D.

ENGINEERING 2A.

MR. A. A. SMYTH

Adams, N. A.
Alley, R. D.
Anderson, J. W. L.
Ball, R. A.
Barker, C. S.
Benton, A. M.
Blair, W. G.
Blaymires, W. H.
Bowersman, E. L.
Brigham, J. M.
Brittain, A. L.
Brown, C. W.

Graham, J. R.
Graham, R. B.
Mansell, C. L.
McKnight, J. E.
Newton, R.
Nicholson, D.
Nunn, A. H.
Osborne, F.
Park, J. H.
Parker, F. A.
Pascoe, A. B. C.
Pike, O.

Brown, G. I.
Christopher, A.
Coutler, D.
Darbyshire, W.
Denton, H.
Ennor, D. H.
Finlay, H. B.
Forster, E. T.
Fry, C. J.

Rea, R.
Rickman, O.
Riddell, J. V.
Roltan, G. M.
Walton, Z.
Williams, F. H.
Williams, W. E.
Yates, V.
Shaw, K. L.

ENGINEERING 2B.

MR. R. M. WEBBER

Barrett, N.
Gibson, H.
Hall, R. W.
Harris, V.
Harvey, R. E.
Heatley, S. N.
Hamblin, D. C.
Hipwell, N. A.
Howe, R. W.
Howarth, R. R.
Hunt, K.
Ingram, R. G.
Jack, D.
Kindred, F. D.
Lee, C. E.
Logan, J.
Mason, D. B.
McClure, T. E.
McKay, J. R.
McKinlay, I. C.
MacLachlan, A.

McLean, S. W.
Meltzer, N.
Metcalfe, K. R.
Moore, F. E. K.
Read, T. I.
Robertson, V.
Rutherford, N. J.
Silcock, B. T.
Sim, E. F. C.
Skellin, R.
Spalding, O.
Smith, K. G.
Spencer, J.
Springer, P. R.
Swanberg, F.
Taylor, F. L.
Turvey, A. E.
Vall, S. A.
Vasey, V. K.
Clarke, I.
MacAllister, J.

ENGINEERING 1A.

MR. ADAMS

Ainsworth, R. J.
Andrade, S. D.
Ash, G. W.
Ash, T. V.
Ashton, N. W.
Askew, O. W.
Bainbridge, H.
Barry, A. H.
Barlett, V.
Beeby, C. R.
Beer, E. A.

Beich, H. I.
Belchamber, L. H.
Belin, R. E.
Bell, D. N.
Best, J. R.
Bilham, G. A.
Birnle, A. C.
Blake, C. B.
Boyle, P. T.
Bramley, L. A.
Breckon, G. F.

ENGINEERING 1B.

MR. ADAMS

Brummel, I. R. A.
Burgess, R. E.
Butler, G. E.
Callinan, T. D.
Carpenter, J.
Clarke, K. I.
Coldicutt, W.
Crabb, R. E.
Cradock, N. S.
Crowther, P. G. N.
Croy, J. W.

Davies, T. D.
Davis, C.
Davis, D.
Dempsey, P. E.
Dent, D. F. T.
Dixon, N. J.
Dunn, D. C.
Ebrey, L. A.
England, J. E.
Foxell, J. T.
Thornton, B. H.

ENGINEERING 1C.

MR. J. BROOKE

Carter, P.
Fergusson, S. F.
Fieldsend, L. C.
Fletcher, D. P.
Footie, D. B.
Frost, C. M.
Gibbons, W. N.
Gladwell, J. K.
Goff, B. C.
Goodall, R. W.
Goodie, H. H.

Graham, R. B.
Gwyer, J. O.
Hamilton, J. M.
Hancock, J. F.
Harnett, J. W.
Harrison, R. E.
Higgins, W. O. H.
Hoare, J.
Howe, S.
Irving, H.
Kendall, C. R.

ENGINEERING 1D.

MR. J. BROOKE

Day, M.
Chapman, A. M.
Kendrick, W. B.
Knight, G. W.
Lambert, R. J. G.
Lawrence, W. P.
Lendrum, R. W.
Linton, J.
Loré, I. K.
Lyon, R. N.
Macdonald, H. A.

Macdonald, J.
McIntyre, A. K.
McKellow, M. W.
McLaren, H.
Macpherson, M. J.
McQuillan, R. A.
Main, G.
Mitchell, D. G.
Marshall, N.
Mason, G. W.
McKinnon, J. W.

ENGINEERING 1E.

MR. STEWART

Burbidge, K. A.
Mills, M. J.
Moon, S. H.
Morris, N. J.
Morrison, K. B.
Moulder, K. J.
O'Hara, J. T.
Pegler, G. F.
Pugh, A. A.
Reader, E. W.
Richardson, C. R.

Rolle, E. M.
Rowe, M. J.
Russell, R. G.
Schischka, L.
Skellon, D. B.
Spain, R. G.
Stebbing, E. C.
Stewart, C. D.
Stevenson, S. F.
Torbet, D. G.
White, D.

ENGINEERING 1F.

MR. STEWART

Allen, C. W.
Cassrels, A.
Dawson, O.
Jeffries, S. E.
Jones, T. F.
Lang, G. P.
Nicholas, T. F.
Peggs, W.
Piggott, D.
Tusby, D. P.
Turner, C. P.

Vernon, K. H.
Webb, R. P.
Weir, J.
Willan, T. L.
Williams, C.
Willoughby, H.
Wilson, T. L.
Wright, F. E.
Young, J.
Craig, K.
Preston, P.

MOTOR ENGINEERING COURSE—**MOTOR ENGINEERING 3.**

MR. TITHERIDGE

Cooke, T. T. M.
Hogan, R. T.
Laver, D. G.
McClellan, D.

Oliver, R. W.
Thwaite, J.
Webster, W. K.
Grinter, C.

MOTOR ENGINEERING 2.

MR. H. JAMES

Andrews, E. W.
Bentley, A. R.
Buckley, R. B.
Colman, J. H.
Dainty, W. H.
Downey, K. J.
Edwards, J. C.
Findlay, A. W.
Glauding, H.
Greenbrook, R.
Hayter, D. B.
Howard, K. V.
Hughand, E. C.
Hudson, E. W.
Jowitt, A. K.

Lord, N. E.
Lynch, G. J.
McCook, N. J.
McNamara, R. M.
McPherson, C.
Milne, E.
Morris, A.
Patterson, S. F.
Richards, C.
Rose, E. V.
Selwyn, A.
Taylor, C. R. W.
Walker, G. J.
Ward, W. D.
Tucker, D. S.

MOTOR ENGINEERING 1A.

MR. E. JAMES.

Armstrong, L. W.
Avery, M. J.
Beckwith, C. J.
Boag, W. J.
Box, T. R.
Broadley, W. M.
Bryan, K. D.
Buckley, R. J.
Calvert, J. W.
Cammell, S. J.
Carter, N. W.

Chaney, S. W.
Clemmet, J. A. S.
Cunningham, J. H.
Dainty, E.
Duncan, C.
Dunthorne, J.
Edwards, C. R.
Franks, N. L.
Griffin, I. T.
Gunn, D. F.
Bond, F. J.

MOTOR ENGINEERING 1B.

MR. E. JAMES.

Gardner, J. E.
Gillard, D. C.
Gillard, E. S.
Girven, W. E.
Green, C. L.
Greig, R. W.
Griffiths, D. W.
Grover, J.
Hadfield, B. C.
Hancox, E.
Hardy, E.

Hoare, S.
Hughes, L. P.
Huston, J.
Hynes, R. D.
Kennerley, F.
Mathieson, C. F.
Miller, N.
Miller, R. A.
Morgan, W.
Stone, R. C.
Davison, J. W.

MOTOR ENGINEERING 1C.

MR. OHLSON.

McCombe, D.
McMillan, B. T.
Norris, F. P.
Nolan, E. A.
Owen, R. D.
Oborn, L. D.
Pickford, L. E.
Pascoe, J. A.
Peters, L. G.
Petersen, N. J.
Pople, R. G.

Parris, R. W.
Frien, G. A.
Purchase, H. G.
Salisbury, C. G.
Schellack, N. J.
Stebert, J. E.
Skeen, D.
Smith, C. G.
Smith, L. E.
Sokolich, V. S.
Sproul, M. R.

MOTOR ENGINEERING 1D.

MR. OHLSON.

Bongard, H.
Clegg, G.
Day, K.
Harrison, W.
Irvine, R.
King, A.
Rowe, R. K.
Sanders, R. K.
Sarney, A. N.
Thomas, S. E.

Tucker, A. E.
Vaughan, K. J.
Wilson, O. C.
Wright, M. K.
Wallace, U. W.
Walbran, J.
Wiles, A. V.
Young, D.
Glover, A. H.

TYPOGRAPHY COURSE—**TYPOGRAPHY 3.**

MR. WOOLLER.

Chappell, R.
Healy, G. L.

Oxley, H.

TYPOGRAPHY 2.

MR. WOOLLER.

Andrews, A. E.
Baulf, I. H.
Bolton, R. E.
Bonchevsky, E.
Clark, J. R.
Clark, R.
Cowan, A.
Gribble, R. L.
Edwards, J. A.
Hill, C. E.

Huggins, R.
Jones, W. D.
Kealey, K.
Leaming, H.
Millar, M.
Mitchell, J.
Mosley, F.
Shaw, W. A.
Wilson, L. J.
Cladding, H.

TYPOGRAPHY 1.

MR. McROBIE.

Agate, R.
Ayson, R.
Batley, H.
Beard, N.
Baston, E.
Fuller, J.
Fuller, L.
Harrison, S.
Husband, A.
Lucas, W.
Manson, S.
Mitchell, M.
Murphy, R.
McLean, K.
Palmer, H.
Perkins, P.

Rose, M.
Saunderson, R.
Sheehan, A.
Skeates, N.
Smith, H.
Speer, G.
Stephens, L.
Stewart, L.
Simpson, C.
Thompson, A.
Taylor, A.
Wilson, R.
Hill, J.
Helleur, N.
Ruffles, R.
Barker, L.

WOODWORK COURSE—**WOODWORK 3.**

MR. TITHERIDGE.

Burgess, L. H. G.
Campling, J. H.

Chatfield, A. D.

WOODWORK 2.

MR. TITHERIDGE.

Annan, J. W.
Harris, R.
Hodgson, L.
Impey, J. L.
Larson, H.
McLennan, S.
Morris, M. A.

Otter, R.
Quinn, M.
Rae, D.
Tait, L. R.
Warring, R. J.
Wells, C. L.

WOODWORK 1.

MR. W. GEMMELL.

Banks, B. K.
Barker, L. B.
Bowles, K. J.
Clark, D. F.
Covey, T. V.
Cross, P.
Corney, R. C.
Carr, J.
Froster, S. W.
Gray, F. W.
Gillan, T.
Gibberts, J.
Hart, G. B.
Hipkins, J. P.
Hartland, J.
Johnston, E. F.
Jury, J. L.

Leach, E. W.
Morton, L. E.
Morton, E. C.
Murphy, S. R.
McPadden, D. H. C.
Roberts, J.
McLaren, G.
Patterson, M. I.
Peterson, J. K.
McKinver, F. N.
Peterson, W. L.
Roscoe, E.
Siddons, A. C.
Smithers, A. C. W.
Stranco, A. C. G.
Wallen

