



SYDNEY  
TECHNICAL  
HIGH SCHOOL  
JOURNAL

November 1925

# ANTHONY HORDERNS'

## For Service and Satisfaction

A STORE'S reputation is based on its Customers' satisfaction. Anthony Horderns' have an enviable reputation for giving satisfaction. It is a store you can depend on—a store that gives full value and quality for every shilling invested.

We pay Carriage on Fashion Goods, Family Drapery, Men's and Boys' Wear and Footwear in N.S.W. and to the nearest Port on Interstate Orders.

**Anthony Hordern & Sons, Limited**

**BRICKFIELD HILL,**

Telephone City 9440

SITUATED IN BLOCK 14,  
"Fair and Square."

**SYDNEY**

Box 2712, G.P.O.



# TECHNICAL HIGH SCHOOL JOURNAL

Vol. X.

No. 1.

JUNE, 1925.

F. W. WHITE, General Printer, 344 Kent St., Sydney





# There's fun with a **KODAK**

You have often been pleased with Snapshots one of your friends has taken—but have you ever thought how much greater pleasure it would give if you had made those pictures yourself? Kodak pictures are easy to make—there is a Kodak or Brownie to suit everyone. Kodaks are priced from 42/-; Folding Brownies from 47/6; Box Brownies from 11/3.

Let the Kodak "Same Day" Developing and Printing Service complete **Your Snapshots** for you. Look for the words "Kodak Print" on the back of each Snapshot as your guarantee of the best possible results.

Of all Kodak Dealers and—

**KODAK (Australasia) PTY. LTD.**

379 George St. and 108 Market St., Sydney,  
and all States and N.Z.



## The Technical High School Journal

VOL. X.

JUNE, 1925.

No 1

### Journal Officials:

Patron: J. A. Williams, B.A.

Editor: A. H. Young. Sub-Editors: C. G. Taylor, G. Spence.

Sports Editor: C. P. Schrader, M.A.

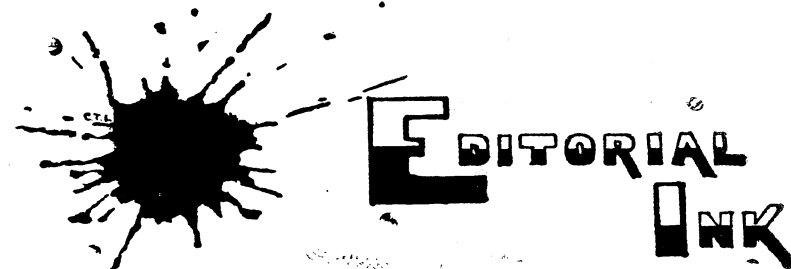
Business Manager: N. Cummings. Asst. Business Managers: G. Mould and E. Riley.

Teachers' Advisory Committee: Messrs. D. H. Berry, B.A.; J. Back, B.A., B.Sc. (Syd.), B.Sc. (Oxon); P. McReady, B.A.; J. G. Belschner; F. W. Atkins, F. T. C., and S. Coulson, Mech. Eng. (Lond.).

Teacher-in-Charge of Journal: S. G. Keys, B.A.

### Class Representatives, 1925

5A—A. H. Young, C. Taylor.	3D—E. Weeding, C. Hannah.
5B—W. Weekes, N. Cummings.	2A—L. Cuff, E. Endicott.
4A—G. Spence, E. Riley.	2B—F. Stead, J. Taplin.
4B—G. Edwards, R. Punter.	1A—J. Harrison, N. Bryson.
3A—J. Brain, G. Laidlaw.	1B—J. Coates, C. Daniel.
3B—R. Parker, J. Patterson.	1C—R. Vercoe, E. Oliver.
3C—S. Johnson, H. Thomas.	1D—A. Richmond, E. Sanford.



There is a time and place for everything, and this seems the fitting moment to speak about our New School.

Practically ever since the inauguration of the Technical High School in 1911, complaints have emanated from parents, teachers, and students about the insufficiency and unsuitability

of the accommodation provided. Those days are happily past, and of them no further mention need be made.

It is, however, with a glow of satisfaction that the numerous present advantages, and those future ones hopefully and anxiously expected as the fulfilment of a conditional promise, can be enlarged upon.

Despite the extremely generous treatment afforded us, while at Ultimo, by all the College authorities, the Staff, nevertheless, finds much pleasure in exercising full control over the domestic arrangements of the school, while the compactness of the buildings and the additional accommodation confidently expected both give rise to general delight.

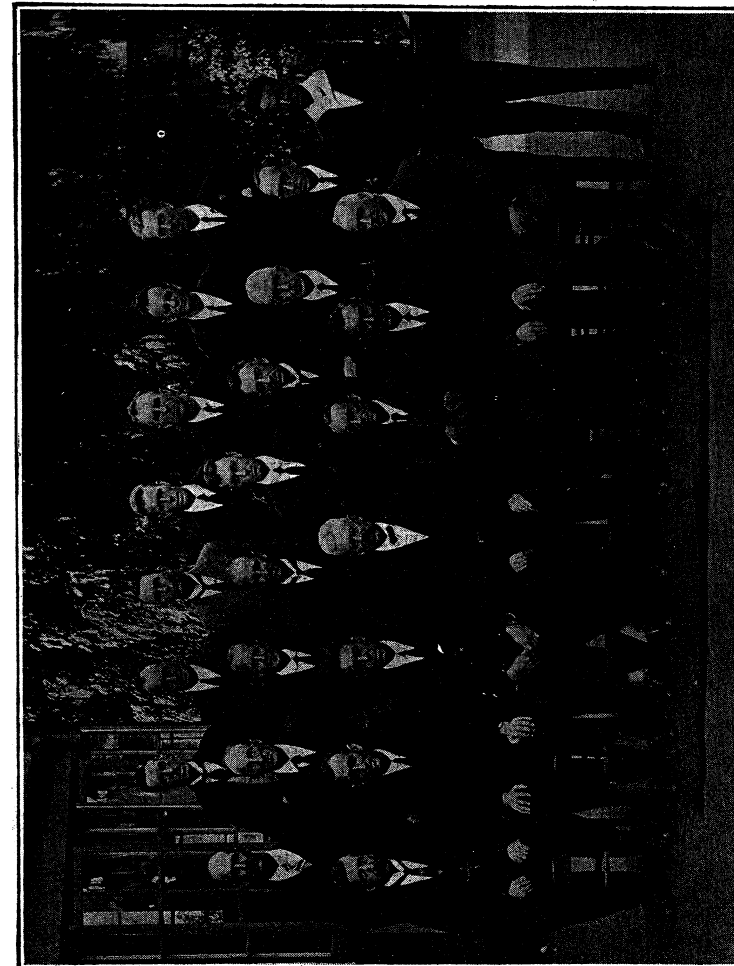
Another great benefit, one which must have considerably influenced the Education Department when making this change, is the close proximity of the playing fields. This is already resulting in a laudable increase of enthusiasm by both competition and class teams. This season, many of the teams have indulged in considerably more practice than has hitherto been possible before the commencement of the competition, and the fine showing made by them so far is undoubtedly due in some measure to the excellent facilities at our command.

The realisation of the ambition to have a building all for ourselves has had, and will continue to have, a profound influence on the school. In addition to the already long list of achievements, many more successes are expected from now on both in the domains of knowledge and the realms of sport.

In the fourteen short years of the school's existence there has grown up a great wealth of tradition. It is interwoven with all our annals, and the Honour Roll, familiar to all, is but the outward and visible sign of this spirit.

In passing through these early stages the Technical High School has gloriously justified its existence and, now in truth, it may be said, do we don the *Toga Virilis*, and, metaphorically, enter into full realisation of our manhood.

With the advent of our new era the old tradition will reassert itself and sweep forward in an irresistible course that will be productive of many earnest workers; some to carry forward the "Promethean Brand"; others to labour at Industry's mighty wheels; but all rendering, in some way or other, valuable service to the State which has placed such abundant opportunities at their disposal.



THE STAFF—1925.

Back Row—Messrs. Short, Austin, Teasdale, Luke, McReady, Hall, Domaille.  
Middle Row—Messrs. Schrader, Waterer, Berry, Keys, Noakes, Edmunds, Sullivan, Nichal, McCurley.  
Front Row—Messrs. Coulson, Back, Mann (Deputy Headmaster), Williams (Headmaster), Giltinan, Belschner, Atkins.



## THE DROUGHT BREAKS.

### I. EVENING.

The landscape that I pictured is not here!  
I stand upon a heap of burning clay;  
I breathe a stifling, torrid atmosphere,  
And gaze on an expanse of grim decay.  
The hill is lit by Sunset's crimson light,  
But Beauty from the lurid scene has fled;  
The mocking crow, from dust-clouds, in its flight,  
Expectant, seeks the dying and the dead.  
Trees lift their boughs imploring to the sky,  
Whose thousand eyes look pitilessly down;—  
Is there no ear to catch the silent cry?  
No heart to heed the deep, unbreathed groan?  
O, Earth! O, Nature! Could thy visage fair  
Fade to that pallid ghostly horror there?

### II. MORNING.

I early woke; and by the Dawn's grey light,  
I watched the progress of the break of day;  
But as the morn advanced, and day had quite  
Burst in upon the scene, it still was grey.  
Where are the glories of the Summer dawn;  
The golden East, the dew-drops sparkling clear,  
The feather'd minstrels singing on the lawn  
To hail the Sun-King when he shall appear?  
The Earth is clothed in a sombre cloak,  
The dark'ning Heavens weep incessantly;  
Rejoice! For Earth hath thrown off Drought's hard yoke,  
Nature, revived, exults with new-born glee:  
The driest creek is running full again,  
The tanks all overflow, and still more rain!

—L. R. S.

## SCHOOL NOTES.

At last "moving" is over, and we are settled in our new abode. It was a big job, needing much forethought and effort, but it was successfully accomplished. Our ready-made home is rather a tight fit, and, therefore, the promise made by the Minister of additional accommodation was a most popular and timely announcement.

Speech Day was an occasion to be remembered. With our unfailing friend, Mr. J. Nangle, Superintendent of Technical Education, as chairman, the function passed off most successfully. The large gathering in the Turner Hall was addressed by the Minister for Education and the Chairman, and both speeches received the enthusiastic appreciation they merited.

\* \* \* \*

Several changes have occurred in the Staff during the past few months. Mr. H. Cowie, B.A., Deputy Headmaster for the past six years, after twelve months in charge of Parramatta High School, has been promoted to Dubbo High School as Headmaster. His position of Deputy at the T.H.S. has been filled by Mr. J. W. Mann, B.A., English Master. Mr. T. A. Owen, B.A., teacher of Mathematics at the School for over eleven years, has been promoted to Orange High School. Both Mr. Cowie and Mr. Owen served the School conscientiously and efficiently during their term of office, and the T.H.S. wishes both these old masters the best of happiness and success in future years. Mr. R. Giltinan, B.A., who was formerly on the Staff, has been re-appointed to the School, and takes Mr. Cowie's place as Mathematics Master; to him we extend a cordial welcome.

\* \* \* \*

At last the Wireless Club has realised its dream of building up a first-class receiving set. With the loudspeaker in action, no difficulty is experienced, even in the playground, in following items given by Farmer's and Broadcasters. Experts Ferguson and Falson, of 4A., are mainly to be praised for this good work.

\* \* \* \*

The School is very grateful to Messrs. H. Small, Ltd., and to the proprietors of the Sydney School of Mechanical Drawing, for handsome prizes given this year. The former donated a prize to the student who gained the best pass at the Intermediate Examination, while the most proficient boys of Fourth and Fifth Year Classes in Drawing were the deserving recipients of the latter firm's prizes.

\* \* \* \*

The Journal staff wishes to take this opportunity of thanking everyone who has contributed to this issue. It is only by such loyal aid that affairs of this sort can be brought to a successful termination. The articles published represent but a small fraction of those received, and though many have been discarded, yet the authors of them are just as worthy as their more fortunate companions.

An outstanding feature of Speech Day was the excellent programme of music rendered by the orchestral party organised and directed by Mr. G. King, father of Allan King of 3D. Class. The masterly rendition of the various items deservedly gained the unstinted applause of the large gathering. To Miss Di Rago (violin), Mr. Di Rago (violin), Mr. Worsley (piano) and Mr. G. King (cornet and leader), the school owes a great deal for the splendid entertainment presented. Our sincere hope is that at some date not far distant we may again have the pleasure of hearing this talented orchestral party.

\* \* \* \*

To give a word of praise where it is deserved has always been our practice, and it is with pleasure that we speak of the fine helpful spirit shown by Upper School boys generally during the time of changing over from the Technical College and settling down at Albion Street. Much work had to be done, and the many willing hands made the task a comparatively easy one. Splendid assistance, too, has been rendered by the prefects, under the leadership of A. H. Young.

\* \* \* \*

The whole School was saddened at the death of Fred Douglas, one of the most promising of our Third Year lads. After an illness of only a few days, the news of his death came as a great blow to us all. Of a shy, quiet and retiring disposition, he was universally beloved of his teachers and schoolmates, and his removal by death is a sad loss to the School. Our sincerest sympathy goes out to the sorrowing relatives and friends.

### A DROP OF BLOOD.

I wonder how many are interested in the wonders to be found in a drop of blood. It may seem, at first sight, a peculiar subject on which to write for the Tech. Journal, but I hope to be able to show you that it is really a most interesting one. Of course, it is only possible to touch on the subject, for whole textbooks have been written to treat of it in some of its aspects.

"A drop of blood—a nasty subject, makes me think of that new pocket knife I cut my finger with," you may say. But what happened to the finger?—the bleeding did not continue long, for a wonderful chemical reaction occurred, about which you knew nothing, and the blood clotted. If you will think of it, the clotting of blood is a marvellous provision of Nature. Without it wounds would not stop bleeding and even if we didn't die from loss of blood the wound could not heal, because as we shall see presently, the blood clot that stops the wound also serves as a basis for its repair.

The Ancients were familiar with the clotting of blood and also with the dangers of haemorrhage, but they did not realise the true reason why the blood escaped. Various fanciful theories as to the use of the blood and the action of the heart were advanced but it was not till the 17th century that Harvey demonstrated that the blood circulates as a result of the pumping action of the heart. I suppose most schoolboys could tell us now, that the heart pumps blood to the arteries, which distribute it all over the body into tiny thin-walled vessels, known as capillaries, and that from the capillaries it is returned to the heart by the veins. It is now on the opposite side of the heart to that it started from and in order to regain the original position it is pumped via the lungs, which allow it to become charged with oxygen. From such an account you realise that the tissues of the body are not in direct contact with the blood at any time but always separated from it by the walls of the blood vessels. However, the walls of the capillaries are so delicate that oxygen and dissolved material can easily pass through them. You also know that when the blood leaves the heart it is urged on by a great pressure (about 2½ lbs. per square inch) and that the pressure is pulsating. Consequently it is possible to count the rate of the heart by feeling the pulse (i.e., the pulsations of an artery in the wrist). In the capillaries much of the pressure is lost and the pulsation is damped out (the expert physicist of the class will explain how that happens) so that the blood returns to the heart at low pressure. Any of you who have studied First Aid know the practical importance of the above remarks, because they form the basis of the distinction between arterial bleeding (when the blood spurts out in jerks), capillary bleeding (with a slow oozing), and venous haemorrhage (with a rapid but steady low pressure flow). While on the subject of haemorrhage it might be mentioned that when you are learning First Aid you should test the efficiency of any method you learn to control arterial haemorrhage (by finger pressure or tourniquet) by feeling for any pulsation beyond the point of pressure. If such pulsation is present you are not doing the work properly. I have seen a case where a tourniquet has been applied to stop bleeding in a real accident and the arteries were still pulsating at a lower level—luckily for the patient the blood clotted sufficiently to prevent any serious effects, but it showed that one should learn such things in First Aid thoroughly.

However, it is not until we examine the blood microscopically that we realise to the full its wonderful nature. At the first glance down the microscope we wonder where the color has gone. All around the field of view we see many small yellowish discs floating, with here and there a little glassy looking blob. The little discs are the red blood corpuscles, which appear pale because they are so thin. It is only when we see them en masse that they have the crimson color of blood. The little white blobs are white blood cells or leucocytes.

As we gaze the red cells run together into peculiar groups like piles of coins and then threads appear in the fluid part of the blood. These threads rapidly spread and form a thick meshwork—the blood is clotting; a material known as fibrin is being precipitated and it binds the mass together.

It is of interest to note that this clotting cannot occur in blood from which the soluble calcium salts have been removed. Later the fibrin



network contracts and squeezes the remaining fluid out of its meshes and at the same time pulls the edges of a wound together, tending to make the resulting scar smaller. The network also acts as a basis or scaffolding for the final repair of the wound by means of fibrous scar tissue.

Of late years many ingenious methods have been elaborated to diagnose disease by means of the blood. One rather interesting method depends on counting the various types of cell in a cubic millimetre of blood. This may sound rather an impossible task when you are told that there are about five million cells in a cub. mm. and that their average size is about 1-3000th of an inch, but really it is simple. It is managed as follows:—The patient's finger is pricked and a tiny drop of blood sucked into a small pipette. This blood is then diluted to a known degree in order to leave fewer cells to count. The diluted blood is then placed in a counting chamber, which is 1-10th mm. thick. It is put under the microscope and the cells, which are seen over a ruled network of a definite area, are counted. Knowing area and thickness, the volume is calculated and from a knowledge of the dilution the number of cells per cubic millimetre may be calculated. It is found that the count of the leucocytes is of more value than that of the red cells in most cases. Normally there about 8,000 white cells per cmm. and these cells are of various types. Usually one count is made of the total number of white cells and a second count by another method, to determine relative percentages of the various types. Combining the two counts, the total numbers of each type of all present may be calculated and compared with the normal. The leucocytes are the cells which defend us against disease and they do this by eating any invading bacteria. Phagocytosis is the technical name for this activity and when the bacteria are too many or too virulent to be so engulfed, we suffer from disease. But when the bacteria begin to be too strong for the defences the bone marrow sets to work to develop more defenders in the shape of more white cells and, strange as it may seem, a sauce (or "opsonin" to give the Greek name) is developed in the blood to make the bacteria more palatable.

For the different types of germs that invade the body, there are different types of white cells to repel them and so when a particular type of white cell is developed in great numbers and we find out the fact by the counting methods mentioned above, we at once know that an invasion is being repelled and we have an indication of which type of germ is the invader. This, together with a knowledge of the symptoms shown by the patient, may enable an early and accurate diagnosis to be made and appropriate treatment commenced early enough to save the patients' life, whereas if we had to wait for other symptoms to appear it might have been too late.

There are many other points of interest about blood, such as the way it carries oxygen, the regulation of pressure, methods of measuring the pressure, etc., which cannot be dealt with just at present. But perhaps you will now realise that blood has many remarkable features and, although so much is known of it as a result of the patient researches of generations of able thinkers, much still remains to be unravelled in the future, but perhaps that is one of the fascinations of Science—new facts are always ahead beckoning us on to their discovery.

R.E.M.

## SPEECH DAY, 10th APRIL, 1925.

It was a peculiar sensation to wend our way to Turner Hall, for Speech Day. A return to familiar haunts; to what had been the domicile of the School for the first fourteen years of its existence. But on this occasion we went as visitors for the morning only. We are proud to possess a home of our own, but sorrowfully we have to admit the lack of an Assembly Hall, or even a place where such a function as Speech Day might be celebrated. Thanks to Mr. Nangle, who kindly placed Turner Hall at our disposal, the difficulty was surmounted.

Speech Day this year was the brightest we can remember. The speeches were interesting and inspiring, and the presence of Mr. King's excellent orchestra, which admirably rendered a most liberal programme, greatly enhanced the enjoyment of the large assemblage of parents, friends, old boys and students.

The Headmaster's Report, after reviewing the work and events of the year, and bestowing laurels where they were due, stressed the inadequacy of the accommodation at Albion Street.

Mr. Bruntnell was again present on the platform. He had on two previous occasions addressed us, and we already acclaimed him our friend. His address at once proved this feeling well-founded. He assured us of the great interest he has in the progress of the School and in the maintenance of the reputation it has won. Better still, he promised that if returned to power at the May elections, the additional accommodation we require would be provided; while if the Fates were against him, he would leave behind him a recommendation that whatever is necessary to put the School into effective working order should be done.

In the course of his address Mr. Bruntnell indicated the great need, in a young country like ours, for scientific training. Great projects such as the Harbour Bridge, the Avon Dam, electric schemes and road construction, all demanded skilled and trained men. He urged us to emulate the valorous struggles and splendid achievements of Farrar, Edison, Pasteur, Lister, and such a man as the late Professor Hunter, who had all conferred inestimable boons on mankind. If we are to achieve results of this kind, we must strive zealously to equip ourselves with a sound Technical education.

His concluding message to us was to press forward, to make up our minds to do something and at the same time not to lose sight of the fact that education has also an ethical and spiritual side which renders necessary the inculcation of high ideals.

Mr. Nangle once again occupied the chair. Before presenting the prizes and trophies, he delivered an entertaining address, in which he emphasised the great value of practical observation and self-discipline. The men who brought the greatest gifts to the world, he said, were not lovers of work, as boys, and (just as we do) evaded it. They had achieved success because they had cultivated habits of industry and discipline. There is such a thing as genius, and men like Beethoven and Shakespeare were certainly gifted. Yet it is given to all to reach a position of eminence if they rigidly discipline themselves to habits of practical observation and the exercise of energy. Work never killed anyone, and, like money put in a bank, will come back tenfold.

## THE HEADMASTER'S ANNUAL REPORT.

The work of the school, as a whole, during the past year, has been very satisfactory. A few changes have taken place in the staff. Mr. Cowie, Deputy Headmaster, is now in charge of Dubbo High School, and Mr. Owen has been promoted to Orange High School. Mr. J. Mann, B.A., English Master, is now Deputy Headmaster, and Mr. R. Giltinan, B.A., is Mathematic Master.

During the year Mr. M. Hall, B.A., was appointed to the English staff. The school has been fortunate in its staff from the very inception, and the work of its present members is well up to the standard of their predecessors. Mr. McReady, Mathematics teacher, and Mr. Waterer, Manual Training teacher, have passed the finals for the B.A. degree. The conduct of the boys, on the whole, has been excellent and, as Shakespeare would have said, "shows the mettle of their home pastures." With a few exceptions they have shown a commendable desire to make the most of the many advantages which their membership of the school affords. Because of the advanced age at which many boys, who must start work at sixteen, enter this school, the Department permits Technical High School boys, if fit, to sit for the Intermediate Examination in two years. Half the first year boys, by their own special effort, and by the hard work and the skill of their teachers, qualified for this privilege in the November examinations.

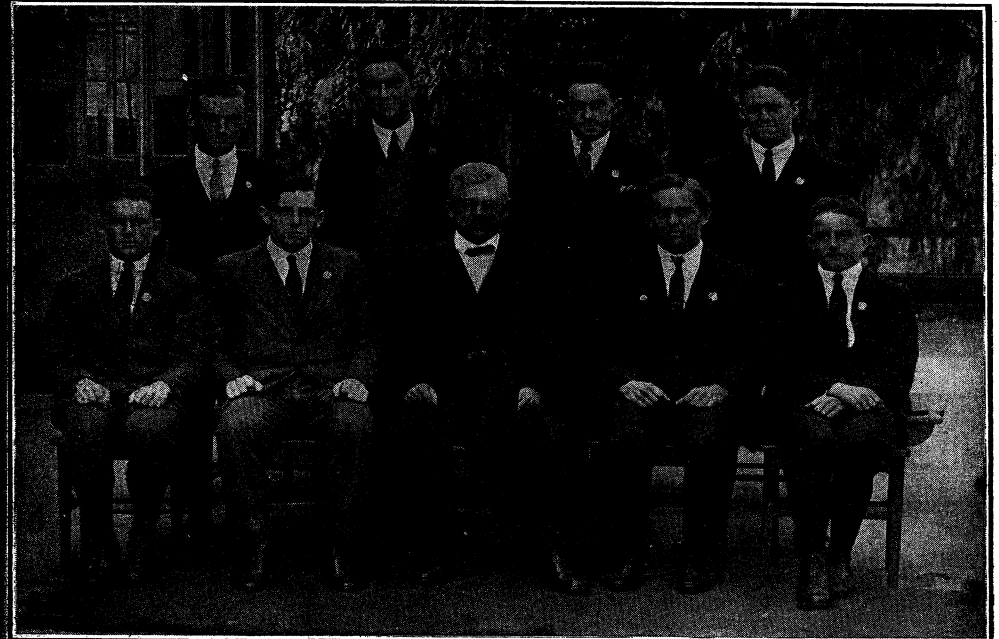
In the November Public Examinations 99 boys passed the Intermediate, and 27 the Leaving Certificate. (For details please see examination lists.—Ed.).

Among the Old Boys, K. Branch won Prof. David's prize for Geology III.; G. Stanley graduated B.Sc., winning first place in Mineralogy; W. H. Love graduated B.Sc., with first-class honours in Physics; R. E. Walker received first-class honours at graduation in Economics; V. Trikojus obtained his B.Sc. with first-class honours in Organic Chemistry, and was awarded a Science Research Scholarship; W. J. Lawrence and P. Henderson received Bursaries, and R. G. Moore a P.N.R. Scholarship to Engineering. A moral for Technical High School boys is to be drawn from the success of the three last-named young men. Although they had to go to work on leaving school, they did not neglect their study of a foreign language while at school, and now, after some years spent in workshops, have been able to matriculate and win valuable scholarships which will enable them to qualify for the Bachelor of Engineering degree at the University.

With regard to our new home at Albion Street, Paddington, I have to state that the Minister remodelled seven rooms, a woodwork shop, a metal-work shop, a physics laboratory and lecture room, and a chemistry laboratory and lecture room. All were ready for our occupation on the first day of school. Originally there were fourteen ordinary lesson rooms. Three of these had to be taken for Science rooms and two more would have been taken if senior and junior drawing rooms had been provided.

That would have left us with nine rooms for fourteen classes, which the Chief Inspector, in a recent visit, said should be sixteen classes, on account of the large Fourth and Fifth Year classes. The gross enrolment this year in classes is, 30, 19, 42, 41, 37, 38, 40, 38, 38, 30, 42, 42, 42—a total of 521. It is a truism that each class should have a room of its own, and each pupil a desk of his own. At present each boy must carry his bag, his lunch, his books and his instruments from room to room, and into the playground; and, what is equally important, no class can be charged with the good order and condition of any room and its furniture.

We therefore urgently need at least three more ordinary class rooms, two properly equipped and lighted drawing rooms, and one science preparation room; and I make this appeal to you, Sir, publicly, backed up by this large school and the great number of parents present this morning, and with every confidence in your sympathetic consideration, because of the substantial earnest you have already given the school of your goodwill and interest.



### PREFECTS.

*Standing*—C. Taylor, R. Salmon, E. Powys, G. Campey.

*Sitting*—H. Ramsay, A. H. Young (Senior), Mr. J. A. Williams (Headmaster), M. de Plater, W. A. Egan.

### SMUTS AND WIRELESS.

Smuts, you must know, is my next door neighbour. He has a most sarcastic temperament. For instance, when I first got a loud speaker set some months ago and gave a dance on the back lawn one Saturday night, he came and draped himself over the back fence the next morning with his old black pipe in his mouth. Like some smokers, he has a very bad habit. He drowned a fly walking innocently on a



leaf in my best garden plot, looked quizzical, moved his pipe from the right side of his mouth to the left, puffed several times and ejaculated—

"What kind of a gramophone y'a got, Mitchell?"

"I have not got a gramophone, Mr. Smuts. You probably refer to my five valve set and loud speaker."

(I always make a point of speaking politely to Smuts.)

"Humph," he said, "I thought it was. Bit too tinny for a gramophone. How'd ya get it. Win a crossword?"

"I did not, Mr. Smuts," I replied in as polite a tone as I could muster.

"Well, how many soap wrappers did you collect, Algie?"

Now, I detest people who call me Algie, so I drew myself up to the five feet four mark and answered: "You know I don't use soap, Mr. Smuts. Since you are so particular, I got it on the lay-by system. Good morning."

About a week later I noticed a thin wire stretched from the Smuts' bathroom window to the other end of the yard and as I was going to work in the tram I heard young Smuts ask another boy in the next compartment what time Broadcasters started in the morning. Questioning Smuts that evening, I elicited the information that young Bill had been "fooling round with a crystal something-or-other" and had "received statics in the bathroom."

Arriving home from work the next Saturday, I saw a forty-foot pole at an angle of about sixty degrees to the horizon, in Smuts' back yard, with young Smuts dangling from approximately nothing about half-way up, while the elder Smuts alternately rolled himself up in the guy-wires and kicked the dog who insisted upon burying a bone in the hole that the post was to go in, keeping up all the time such a dreadful rumble of good old sea-faring language that the cat stood on the fence with her teeth bared for battle, and her tail looking more the shape of a beer bottle than anything else. However, they got it almost up in the end before it crashed, and broke a back window. The next day, as you will possibly know, was Sunday, and Smuts chose it to dig a grave in a corner of the yard. I thought that mongrel of his had at last eaten the fish-hooks I had given him in some meat, but, to my surprise, Mr. Smuts and Mrs. Smuts, and all the little cinders, carried out and laid to rest an old bath, and then commenced to fill it up with some sheets of iron off the roof, old safety razors, an old copper, gas brackets, dilapidated looking milk-cans, part of an old mangle, an old car battery, and some brass door knobs that performed some funereal music at the fitting time. Later in the day I saw a shining earth wire coming from the bath and wandering in a lost manner across the yard and up the side of the wall into the bathroom. Smuts informed me in the following fashion:—

"Aw, the kid's got a valve. Thinks he'll get Melbourne with a good aerial, so I put one up for him. Lowers the 'tone' of the garden er course, but it keeps him off the street. Aw!"

I can see him yet on that eventful day. He was at the fence in his usual position with his old black pipe in his mouth and was just preparing to drench an audacious ant when young Bill put his head out of the bathroom window and yelled:—

"Heh! Dad! I got Melbourne."

Smuts dropped his pipe in a barrel of tarry water, did his best to imitate a ferris-wheel over the earth wire and sped for a considerable distance, mostly on his nose. He next sorted himself from a rose-bush

and steadied the back yard by supporting the side of the house with his right hand, while his left roamed over his face in search of his injured proboscis. He waited till the yard came to rest and then vibrated up those rickety back steps of his into the bedroom.

In another week our loud speakers roared in dreadful unison, "2FC station, Farmers' broadcasting."

Of course that THING of Smuts' is nothing like my Artivox.

However, at last he admitted, "Aw its interestin', y'know. Better th'n a gramophone."

Now he is learning the Morse code and every Sunday morning we converse on the faults and merits of the "Super-het," "S.T. 100" and Unidyne. Smuts is abominably ignorant. I really don't know why I do speak to him about wireless subjects—except—well—er—. Well, you know!

A. H. MUTTON, 5A.

## SUNSET.

At the close of the day, when the streets of the city  
Are crowded with people all bustle and rush,  
The sun's blazing crescent sinks low in the ocean,  
And over the forest comes stealing, a hush.

Hanging low in the west there are great rolling masses,  
Tinted with amber, embroidered with gold;  
While the great azure dome's decked with cloudlets of crimson,  
And 'gainst the horizon dark forms stand out bold.

Then the glittering path on the ocean does vanish,  
And the fiery clouds turn a soft, sombre grey;  
And the little birds cease their melodious singing,  
Bidding welcome to the night and farewell to the day.

A.L., 3A.

## EXAMINATION RESULTS.

### LEAVING CERTIFICATE, 1924.

The numbers indicate the following subjects:—(1) English, (2) Latin, (3) French, (4) German, (5) Mathematics I., (6) Mathematics II., (7) Mechanics, (8) Modern History, (10) Physics, (11) Chemistry, (24) Technical Drawing, (25) English and Geography for Engineering Matriculation; H—Honours, A—First Class Pass, B—Second Class Pass, L—Pass at Lower Standard, X—Honours in Mathematics.

## TECHNICAL HIGH SCHOOL.

Anderson, Anders John P., 1B 5B 6B 10L 11B.  
 Andrews, William Charles, 1B 3B 5A 6B 7B 10H 24A.  
 Archer, Albert Fredk. N., 5A 6B 7B 10L 24A.  
 Bartholomew, Robert James, 1B 3B 5B 6B 7B 10H 11A.  
 Brewer, A. H., 1B 4B 5B 6B 7B 10H 16 Pass, 24B.  
 Cuthbert, Ian Davenport, 1B 5B 6B 10B 11B.  
 Elwin, Sydney J., 1B 5B 6B 7B 10A 11A.  
 Ennever, Edward Robert, 1B 5B 6B 10B.  
 Gregory, Eric William, 1H 5A 6A 7B 10H 11B 16 Pass.  
 Hallman, F. M., 1B 5A 6A (x) 7A 10H 16 Pass, 24B.  
 Henderson, Thomas Fredk., 1A 5A 6B 10L 24B.  
 Herman, Morton Earle, 1H 3B 5B 6B 7B 10A 24A.  
 Holloway, Mervyn F. H., 1B 3B 5B 6B 7B 10B 11H.  
 Junior, William Ashdown, 1B 4L 5B 6B 10B 24A.  
 Kirkham, Paul, 1B 5B 6B 10B 16 Pass, 24A.  
 Madden, Charles A., 1A 3B 5A 6B 7B 10H 24B.  
 Miller, Andrew C., 1B 5B 6B 10B 11B.  
 Nickal, Evan, 5B 6B 7B 10B 24B.  
 Omodei, C. T., 1A 3B 5A 6A (x) 7B 10B 16 Pass.  
 Pidgeon, William Edwin, 1A 5B 6B 10H 24B.  
 Reynolds, Norman Joseph, 1B 5A 7B 24B.  
 Stead, David Darwin, 1B 5B 6B 11A.  
 Taylor, Alan Raymond, 1B 5A 6B 10B 16 Pass, 24B.  
 Watt, John Gordon, 5B 6B 7B 10B.  
 Williams, Roger Bede, 1B 5B 10B 11B.  
 Yeaman, John, 1B 5B 6B 10B 11A 16 Pass.  
 Young, Albert H., 1B 5B 11B 24B 16 Pass.

- (a) Number of Passes: 27.
- (b) Best Pass in the School: F. M. Hallman.
- (c) University Exhibitions—Science: (2) Andrews, W. C.; Holloway, M. F. H. Architecture: (2) Herman, M. E.; Madden, C. A.
- (d) Higher Clerical Public Service: (5) Gregory, E. W.; Archer, J. A.; Miller, A. C.; Stead, D. D.; Henderson, T. F.
- (e) Cadet Draughtsmen: (1) Hallman, F. M.
- (f) Teachers' Training College: (9) Holloway, Mervyn; Elwin, Sydney J.; Madden, Charles A.; Miller, Andrew; Stead, David D.; Nickal, Evan; Kirkham, Paul; Williams, Roger; Ennever, Edward.
- (g) Honours gained at Leaving Certificate Examination—English: (2) Gregory, Eric W. (1st Class); Herman, Morton E. (2nd Class); Mathematics: (2) Hallman, Frank M. (1st Class); Omodei, Clifford T. (2nd Class). Chemistry: (1) Holloway, Mervyn F. H. (1st Class). Physics: (7) Gregory, Eric W. (2nd Class); Hallman, F. M. (2nd Class); Bartholomew, J. (2nd Class); Andrews, W. C. (2nd Class); Brewer, Albert, H. (2nd Class); Madden, Charles A. (2nd Class); Pidgeon, William E. (2nd Class).
- (h) Technical College Scholarships awarded on L.C. Exams.: (9) Hallman, F. M.; Williams, R. B.; Brewer, A. H.; Taylor, A. R.; Andrews, W. C.; Yeaman, J.; Bennett, R. H.; Willis, H. D.; Henderson, P.
- (i) Technical College Scholarships awarded on Inter. Cert. Exams.: (17) Newsom, J. M.; Edwards, G.; Stewart, R.; Johnston,

C. T.; Corbett, A. B.; Sutton, R.; Georgeson, J. T.; King, W. M.; Laing, R. B.; Pople, F. H.; Giblett, J. D.; Gashler, H. M.; Newland, J. R.; Joils, H. V. T.; Freeman, A. W.; Hinwood, A. R.; Hoile, A. B.

- (j) Number of Matriculation Passes: 10.

## INTERMEDIATE CERTIFICATE, 1924.

Passed: 99.

Best Pass:

The numbers indicate the following subjects:—(1) English, (2) History, (4) Mathematics I., (5) Mathematics II., (7) French, (8) German, (11) Physics and Chemistry, (16) Woodwork, (17) Metalwork, (23) Technical Drawing.

## TECHNICAL HIGH SCHOOL

Beasley, Raymond Keith, 4B 8B 11B 16B 17B 23A.  
 Beauchamp, William Thomas, 1B 8B 11B 16B 17B 23B.  
 Berrie, Keith Newman, 1B 2B 5B 16B 17B 23B.  
 Black, Jack William C., 1B 4B 5B 11B 16B 17B 23B.  
 Bodkin, Harland Bernard, 1B 2B 5B 11B 16B 17B 23A.  
 Brown, Keith Osborne, 1A 2B 4B 5B 11B 16B 17B 23B.  
 Burges, Norman Alan, 1B 4B 5B 11B 16B 17B 23B.  
 Burrell, Alexander, 1B 2B 11B 16A 17A 23A.  
 Cameron, William Lachlan, 1B 2A 4B 11A 16B 17B 23B.  
 Chaffer, Arthur, 1B 2B 5B 11B 16B 17B.  
 Christian, Harold S., 1B 4A 5B 7B 11B 16A 17B 23A.  
 Coates, Herbert John A., 1B 2B 16B 23A.  
 Connolly, Donald Hamilton, 1B 2B 11B 16B 17A 23B.  
 Corbett, Alex. B., 1B 2B 4B 5B 7B 11A 16A 17B 23A.  
 Corbett, Charles John, 1B 4B 17B 23B.  
 Cox, Charles Hector, 1B 2B 5B 11B 16B 17B 23A.  
 Crum, Leslie Bishop, 1B 2B 4B 5A 11A 16A 17A 23A.  
 Denham, Digby Aubrey, 1B 2B 4B 11B.  
 Denham, Rupert Norman, 1B 5B 16B 17A 23B.  
 Dodd, Kenneth Simmonds, 1B 2B 5B 11B 16B.  
 Doogan, Matthew James, 1B 2B 5B 16B 17B.  
 Eccleston, Clifford R., 1B 2B 4B 5B 8B 11A 16B 17B 23A.  
 Edwards, G. R., 1A 2B 4B 5B 8B 11A 16A 17A 19A 23A.  
 Endean, James S., 1A 2B 4B 5A 11B 16A 17A 23A.  
 Falson, Allan Kethel, 1B 4B 5B 11B 16B 17B 23B.  
 Ferguson, Arthur Clive, 1B 4B 5B 11A 16A 17A 23A.  
 Fitzhardinge, John B., 4B 5B 16B 23A.  
 Fitzpatrick, Jack P., 1A 2A 3B 4B 5B 8A 11A 14B 23B.  
 Flatt, Walter J. N., 1B 4B 5B 8B 11B 16B 17B 23B.  
 Freeman, Albany M., 1B 2B 4B 5B 11B 16B 17B 23B.  
 Gabbe, Herbert John, 1B 4B 11A 16B 17B.  
 Garratt, Raymond George, 1B 5B 7B 17B 23A.  
 Gashler, Harold Macbeth, 1B 2B 4B 8B 11B 16B 17A 23B.  
 Georgeson, John T., 1B 2B 4B 5B 7B 11B 16B 17A 23B.  
 Giblett, Jack Dean, 1A 2B 4B 5B 11B 16B 17B 23B.  
 Goetze, Norman Clifford, 1B 4A 5B 7B 11B 17B 23B.  
 Goffin, George Robert, 1B 2B 4B 11B 16B 17B 23A.  
 Graham, Cecil Robert M., 1B 2B 4B 5B 11B 23B.  
 Grainger, Thomas Albert, 1B 2B 4B 5B 16B 17B 23B.  
 Hannaford, Norman Clive, 1B 4B 5B 17B.  
 Hinwood, Arthur Russel, 1B 2B 8B 11B 16A 17B 23B.  
 Hoile, Albert Booth, 1A 2B 5B 11B 16B 23A.  
 Horwood, John Francis, 1A 2B 11B 16A 17B 23A.



Hughes, Harold R., 1B 2B 4B 5B 11B 16A 17A 23A.  
 Hurd, Lloyd Greville, 1B 11B 16B 23B.  
 Irvine, Eric Robert, 1B 5B 11B 17B 23B.  
 Jeppesen, Carl Alfred, 1B 2B 5B 8B 11B 16B.  
 Johnson, Arthur Frank, 1B 2B 11B 16B 17A 23A.  
 Johnston, Charles T., 1B 2B 4B 5B 8B 11B 16A 17A 23A.  
 Joils, Harry T. V., 1B 4B 5B 11B 16A 17B 23A.  
 Jones, Arnold Balfour, 1B 2B 11B 16A 17A.  
 King, Harold Arthur, 1B 2B 4B 5B 11A 16A 17B 23A.  
 King, William Morison, 1B 2B 4B 5B 11A 16A 17B 23B.  
 Laing, Robert Bowen, 1B 2B 4B 5B 11A 16A 17B 23A.  
 Langshaw, Reginald Norman, 1B 4B 11B 23B.  
 Lesha, Frank, 1B 2B 4B 5B 11A 16A 17B 23A.  
 Lewis, Geoffrey John, 1B 4B 5B 11B 16B 17B 23A.  
 Lucas, George Henry F., 3B 4B 16A 17A 23A.  
 McCue, Peter Robert, 1B 4B 5B 23B.  
 McDonald, Arthur Oliver, 1B 2B 4B 5B 17B.  
 Mills, Ralph Mervyn, 1B 4B 5B 11B 16B 17B 23B.  
 Moir, Francis Oag, 1B 2B 11B 16B 17B 23B.  
 Morris, Neil John, 1B 5B 11B 16B 17B 23B.  
 Munkman, Ronald, 1B 2B 4A 5B 7B 11B 16B 17B 23B.  
 Myles, George, 1B 2B 4B 11A 16B 17B 23A.  
 Newland, John Rex, 1B 2B 4B 5B 11B 16B 17B 23B.  
 Newsom, James M., 1A 2B 4A 5A 8B 11A 16B 17B 23A.  
 Nichols, Norman Charles, 1B 4B 11B 16B 17B 23B.  
 Palmer, Norman Frank N., 1B 2B 16B 17B 23A.  
 Paterson, John, 1B 8B 11B 17B.  
 Paul, Ralph Dunstan, 2B 4B 11B 17B 23B.  
 Peryman, Malcolm Frederick, 1B 2B 11B 16A 17B 23A.  
 Pitcher, Frank George, 1B 4B 5B 11B 16A 17B 23B.  
 Pople, Frederic Henry, 1A 4A 5A 11B 16B 23B.  
 Prior, Lance, 1B 4B 5B 11B 16B 17B 23A.  
 Richmond, John Thomas, 1B 4B 17B 19B 23A.  
 Riley, Edward Thomas, 1B 4B 5B 11B 16A 17B 23A.  
 Robards, Oliver Edward, 1B 2B 5B 11B.  
 Robert, Allan, 4B 11B 16B 17B 23A.  
 Robertson, Milton Howard, 5B 11B 16A 17B 23A.  
 Root, Alexander Pullman, 1B 2B 11B 16A 17B 23B.  
 Ross, Alexander James McL., 1B 4B 5B 11B 16B 23B.  
 Rourke, Basil Wilfrid, 1B 2B 4B 11B 16B 17B 23B.  
 Sargent, Eric William A., 1B 2B 11A 16B 17B 23B.  
 Smith, Walter, 1B 2B 5B 23B.  
 Spence, Geoffrey William, 1B 2B 11B 16B 17B 23A.  
 Stewart, Russell James, 1A 2B 4B 5B 11A 16A 17B 23A.  
 Stoné, Theodore James, 1B 2B 4B 5B 7B.  
 Sutton, Robert George, 1B 4A 5A 11B 16A 17B 23A.  
 Thomas, Aleck Warman, 1B 4B 11B 16B 17B 23B.  
 Thompson, Samuel E., 1B 2B 4B 5B 11B 16B 17B 23B.  
 Walker, George Allan, 1B 11A 16A 17A 23A.  
 White, Neville Hewlett, 1A 2A 11A 16A 17B 23B.  
 Whitehouse, Cyril Raymond, 1B 4B 11B 17B.  
 Wilkie, Grahame, 1B 2B 11B 16B 17B 23B.  
 Willis, Albert Frederick, 1B 5B 11B 16B 17B 23B.  
 Winston, Jack, 1A 2A 4B 5B 11B 16B 17B.  
 Wrench, Rodney Keith, 1B 11B 16B 17B 23B.  
 Wrench, Rodney Kieth, 1B 11B 16B 17B 23B.

## PRIZE LIST.

### *Fifth Year.*

Turner Prize—Albert Brewer.  
 Dux of School (O.B.U. Prize)—Eric Gregory.  
 Prox. acc.—William Andrews.  
 Markham Medal for Modern Languages—Morton Herman.  
 Stanhope Medal for Science—Eric Gregory.  
 Spence Medal for Mathematics—Frank Hallman.  
 Old Girls' Union Medal (Drawing)—William Pidgeon.  
 Best Leaving Certificate Pass—Frank Hallman.

### Subject Prizes:

English—Eric Gregory and Morton Herman.  
 French—Morton Herman and Eric Gregory.  
 German—Albert Brewer.  
 Mathematics—Frank Hallman, Wm. Andrews, and Cliff. Omodei.  
 Mechanics—Charles Madden.  
 Physics—Eric Gregory and William Andrews.  
 Chemistry—Mervyn Holloway and Eric Gregory.  
 Drawing—William Pidgeon and Evan Nickal.

### *Fourth Year.*

Dux of Year and 4A.—William Egan.  
 Prox. acc. and Dux of 4B.—John Kilby.

### Subject Prizes:

Drawing (Special Prize of £1/10/- donated by Mr. G. Allen Martin, Sydney School of Mechanical Drawing)—1, Colin Barnard; 2, Edward Phelan.  
 English—William Egan and Keith MacGraw.  
 History—Eric Waites.  
 French—William Egan and Brian Browne.  
 German—John Meisch.  
 Mathematics—William Egan, John Kilby and John Roberts.  
 Physics—William Egan, Brian Browne, Herbert Freeman.  
 Chemistry—Keith MacGraw and Karl Silberschmidt.

### *Third Year.*

Dux of Year and 3C.—James Newsom.  
 Dux of 3A.—William Corbett.  
 Dux of 3B.—James Endean.  
 Dux of 3D.—John Newland.  
 Best Intermediate Pass—James Newsom.

### Subject Prizes:

Drawing (Special Prize of £1/10/- donated by Mr. G. Allen Martin, School of Mechanical Drawing)—Malcolm Peryman.  
 English—W. Flatt.  
 History—J. Fitzpatrick and C. Johnson.  
 German—John Fitzpatrick.  
 French—Alex. Corbett.  
 Mathematics I.—James Newsom.  
 Mathematics II.—Alex. Ross.  
 Elementary Science—Charles Johnson and Robert Laing.  
 Drawing—Malcolm Peryman.  
 Woodwork—George Walker and Neville White.  
 Metalwork—Robert Sutton and Arthur Ferguson.

*Second Year.*

Dux of Year and 2B.—Ernest Goulding.  
Dux of 2A.—Donald Mackenzie.

## Subject Prizes:

English—W. Smith.  
History—Neville Hurkett.  
French—Winton Healey.  
German—Alex. Holmes.  
Mathematics—Donald Mackenzie.  
Elementary Science—Joseph Molloy.  
Drawing—Ernest Goulding.  
Metalwork—Ernest Goulding and J. Mackinnon.  
Woodwork—Ernest Goulding and J. Mackinnon.

*First Year.*

Dux of Year and of 1A.—Roderick Browne.  
Dux of 1B.—Arthur Pooley.  
Dux of 1C.—Bernard Brogan.  
Dux of 1D.—Arthur A. Sutton.

## Subject Prizes:

English—Roderick Browne and Ray Hatton.  
History—Stewart Cousin.  
French—Roderick Browne and William Kelly.  
German—Arthur Pooley and Arthur Sutton.  
Mathematics—Albert McGlynn.  
Elementary Science—Ralph Price and Maurice Sedgmen.  
Drawing—Roderick Browne and Frank Turner.  
Woodwork—Roderick Browne and Clifford Hannah.  
Metalwork—Frank Turner and Stanley Lewis.

## THE NULLABOR PLAIN.

The Nullabor Plain, which is about four hundred and fifty miles long, is crossed by the Trans-Australian Railway, and, out of the four hundred miles of railway track, three hundred and thirty miles are straight. This is the longest stretch of straight track in the world.

The plain itself is fairly level and devoid of all plant life except for an occasional salt-bush or blue-bush. It was once a sea-bed and by volcanic upheaval has been lifted eight hundred feet above sea-level.

The plain is studded with blow-holes, which are circular in shape, and range in diameter up to about two feet. For a period of the day the blow-holes may issue cool air, resembling seaweed in odour, and then they begin to draw in air.

This plain is inhabited by many queer reptiles. The Bicycle Lizard is an extraordinary creature. It is of the ordinary size, growing to about fifteen inches long. It runs with incredible speed and its back legs move similarly to the legs of a cyclist in action. From this fact it derives its name.

When it fights it lifts its tail high over its body. Another peculiar lizard is the Frog or Barking Lizard, which closely resembles the frog

about the head. It is rather small in size and when fighting it stands upon its hind legs and snaps viciously. When this lizard is teased it makes a noise similar to a dog barking.

Still another lizard is the Mountain Devil, a ferocious looking reptile, yet quite harmless. It is armed from the head to the tip of its tail with small spikes, which protect it from the attack of an enemy.

Giant "goannas" are plentiful upon the plain, and the Fighting Spider, also found there, is one of the largest spiders in the world and will attack anything. Its bite is very, very dangerous.

The Nullabor Plain is inhabited by many peculiar animals, which are rarely found anywhere else.

The Kangaroo Mouse derives its name from the Kangaroo-like hops it takes. Its speed is incredible—so fast that it can easily outpace the best of dogs and it can keep up this speed until the chase ends.

The last peculiar animal worth mentioning is the House-building Rat. It is a good architect and can build a house of fine sticks capable of resisting the strongest wind.

The Nullabor Plain is altogether a queer place, with its queer reptiles, animals and general formations.

R.S., 4B.

## NIGHT FEARS.

Billie Bookworm was perusing his favourite serial of a well-known periodical, "The Hunted Horseman of Redskin Gulch." He followed excitedly the narrow escapes and adventures of his hero, Deadshot Dan.

"Dan bent down and surveyed the footprints. Yes, sure enough, they were Redskins and on the warpath. He must warn the inhabitants of a settlement twenty miles off. As he raised himself he heard a long drawn out howl, terminated by a few coughs and splutters. His horse bolted. The Indians were coming at a gallop. So Dan started to run towards a narrow canon.

He had run for about a quarter of a mile when he saw a band of Indians approaching from the other direction. He was surely trapped. What will happen now?" Read next week's thrilling instalment.

Later, when Billie went to sleep, his mind was full of the doings of Deadshot Dan, and he wondered how Dan would escape from the Indians.

All the house was still, even next door's dog had forgotten to bark, when Billie awakened. What had made him awake? There was no noise, but there was a strange, uncanny feeling pervading the atmosphere. All of a sudden a wailing howl was heard, followed by a few sobs and coughings. Then scuffles and rustling. Billie's hair was on end, as he thought of the Indian war-whoop. Another shriek and some snarls, which seemed to be nearer than the preceding ones, rent the air.

Billie was underneath the bedclothes to conceal himself from the Indian brave who was advancing to scalp him. The howls were coming nearer and nearer. Suddenly he heard the sounds of a window being opened, and a thud, at which the howls died away. Then a voice said, "It is those cats again."

J. N.





# The KOOKABURRA SAYS

That we are to have six new class-rooms in the near (?) future.

\* \* \* \*

That a step should be built around the Tuck Shop, to give the small fry a chance.

\* \* \* \*

That our First Grade League team will win the Comp. this season.

\* \* \* \*

That it is inadvisable to jump off moving trams, especially in front of the Undertaker's.

\* \* \* \*

That several of the new cadets are so fond of their uniforms, that they almost live in them.

\* \* \* \*

That our School Song is not sung on Speech Day now. If we are ashamed of it, why do not our poets (?) write a better one?

\* \* \* \*

That the debating society has recently become surprisingly popular, and that some of the members have already delivered commendable orations.

\* \* \* \*

That our new habitation has greatly added to the well-being and contentment of every member of the School.

\* \* \* \*

That the Radio Club, which was so near to being defunct as to need resuscitation, is now very much alive.

\* \* \* \*

"That music hath charm to soothe the savage breast." Probably this accounts for the revival of the Glee Club.



*Prominent Characters in Twelfth Night.*

## THE SEVEN WONDERS OF THE WORLD.

The first and only remaining wonder is the Pyramids of Egypt. These gigantic structures, which are really monuments over the tombs of the great kings, are a tribute to the building powers of the ancient Egyptians. The greatest of the Pyramids is the one built by Khufu or Cheops. To build this, it is said, one hundred thousand men were kept working for thirty years.

Inside the Pyramid are passages leading to the chambers where the kings were buried, but while the Pyramids stood unguarded, robbers entered the tombs, and so hardly anything remains of the records and wealth buried with the kings.

Though from a distance the Pyramids look quite smooth, they are really composed of steps three to four feet in height. In the first place the Pyramids were smooth, and there were beautiful polished castings on the sides, but these were also removed by later generations of Egyptians. The Pyramids are built on solid rock, although surrounded by sand, and for this reason they have stood for thousands of years. To cover the burial chamber in the Pyramid of Khufu, which was built about four thousand B.C., fifty-six huge granite blocks were used, their average weight being fifty-four tons! These blocks, which are perfectly smooth, were taken from the Nile cataract. This pyramid is over four hundred and fifty feet high and in the early ages a grand causeway of polished stone led up to it.

The second of the wonders is the Hanging Gardens and the Walls of Babylon; these wonderful walls were over three hundred feet high. Around the walls were two hundred and fifty guarding towers of still greater height. The circumference was said to be no less than sixty miles.

The Hanging Gardens were built by Nebuchadnezzar to please his wife Amytis, who, coming from the hills of Media to Babylon, wanted something different from the flat surrounding landscape.

The gardens were laid out on terraced arches, to represent hills, valleys and even woods. Here were grown the fruits and trees of both the hot and temperate zones.

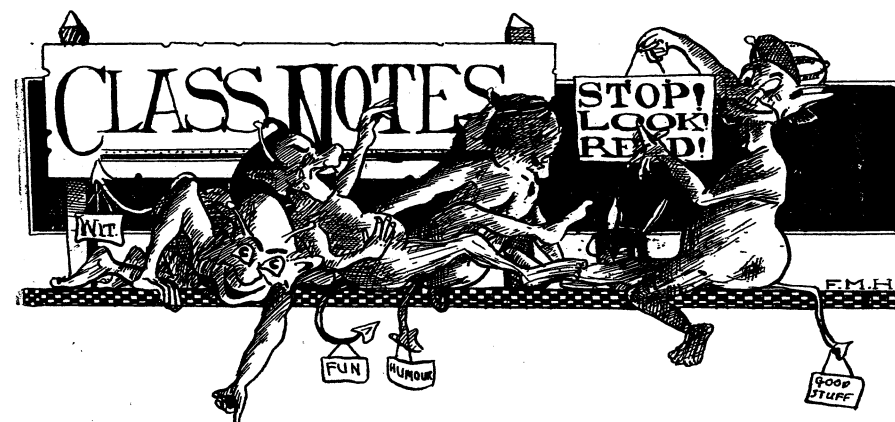
Next among the Seven Wonders was the statue of Jupiter Olympus at Olympia, the centre of Greek worship. Designed by Phidias, the greatest sculptor of all time, it was a seated figure sixty feet high of gold and ivory and rested on a throne made of ivory, gold and ebony.

The fourth of the wonders, which rivalled the statue of Jupiter, was the Temple of Diana at Ephesus, where some of the most magnificent carvings of old Greek sculptors were executed. The altar was designed and carved by the famous Praxiteles himself and the temple was a marvel of carving, both inside and out. Next of the wonders was the Mausoleum, or tomb of King Mausolos, which was erected by his wife, Queen Artemisia. This great tomb was built in Caris, a kingdom of Greece, and it has given its name to all memorials of its kind since. The chief feature of the tomb was a colossal equestrian group carved in marble, which stood one hundred and forty feet above the terrace, on which the monument was placed.

The Pharos, or lighthouse of Alexandria, stands as the sixth wonder. This was a mighty tower standing on an island at the mouth of the harbour, into which it was designed to guide ships. At the top of the tower burnt a beacon which could be seen at a distance of one hundred miles at sea.

The seventh and last of the wonders was the Colossus at Rhodes. This was a huge brazen figure of the God Apollo and was said to be one hundred and twenty feet high; the figure was straddled across the harbour so that ships entering passed between its legs. This great statue stood for over fifty years and was then destroyed by an earthquake.

G.G., 4A.



5A—

A new 5A in a new school, and in a new room, seated in shining new desks, which bark our shins—"That's us." We are distinguished. The first 5A in the history of the building. When, in years to come, we tell this to our prattling grandchildren, then struggling through their first year, they will turn and gape at us with wide open mouths (that is if by that time the young generation have not become too bored to gape at anything). Certainly the remarks about the newness, may, by some malcontents, be modified. They will say its only second-hand. So it is, but a new atmosphere pervades the school. No, not moth balls—we are not continuing the metaphor or simile, whatever it might be. But now it is the only Technical High School in Australia, according to Mr. Bruntnell's statements, made on each of the last three Speech Days, and, of course, takes upon itself a new dignity. Why! the masters wear gowns. Look at fifth year, seated like a number of Patiences on the monument in the only sunny corner of their special domain. Could any collection of "young men with whiskers" be more stately?

We have no new men with us, but are composed of the more select of old fifth year and the majority of old 4A. It is hardly necessary, then, to say anything more as regards our examination results. We congratulate the one or two from 5B who did get within sight of our stars at the finish.

The honours results were highly satisfactory to us. We expected little and received no less than we expected. Great self-sacrifice was evidenced amongst those sitting for Physics honours. We were told at the beginning of the year that if we all passed (there are about twenty-four or five of us), we would shock the world, so quite a number seem to have given up all thought of personal glory, and decided to show more consideration for their fellow globites. (N.B.—This has nothing to do with suit cases.)

One phrase has been always in our ears, "You must realize what this year means to you." It has acted as a tightly held rein for five months now. A pleasant salty breeze makes one turn and glance out of the window of Room II. The sky is, well, just sky; there are not any clouds to worry about, and the water is a shimmering sheet of gold, the panorama rather resembles a "Uni." football jersey. What a day for surfing! The glance becomes a gaze of longing. The scintillating waters curl, they become shot with emerald depths and suddenly break in pearly foam. The spume drifts lazily on the lazy wind as the tide slithers up the pleasantly warm sands almost to where you lie. Will you go in again? Your reflection is broken. Something is buzzing round your head. No! it's someone speaking, what do they say? "You don't realize—" you stir restlessly, "what this year—" this brings a guilty start and the picture is shattered, so is your shin more or less, and, shivering, you turn leaves quickly to and fro while collecting your scattered thoughts, and determine always to realize—well, as above.

Being 5A, of course we do other things besides work. Putting the worst first. In the election of prefects only seven of the eight came from our class, and what is worse, we cannot but admit that the eighth merited his position. But to lessen this blow, we have the satisfaction of being the main instrument for the raising of the Debating Society from an almost defunct state, to one of unprecedented enthusiasm. The Secretary, Leading Speaker, President and Vice-President, all come from 5A., and this being so, one does not wonder at the enormous crowds which now attend debates. Rooms 5 and 6 are uncomfortably crowded on a Tuesday afternoon, although perhaps *one or two* attend rather to escape drill, than for love of eloquence.

The prelude finished, we will now begin to blow hard upon our trumpet, the theme of our triumphal song being sport. What is wrong with the school spirit (the lack of which Kookaburra so deploras in upper school boys), of the class that has nineteen grade representatives in the winter competitions—eight in first league, one in second league, and one in third league; two in first soccer, one in first tennis and three in second tennis, and three in first grade baseball? Can any class beat this? At cricket during summer 5A had five "reps." in first grade, and two in second grade.

Our cheeks becoming puffed and red, we shall not attempt to forecast with a last blare, overwhelming successes in the coming athletic and swimming carnivals, for fear of apoplexy, but leave the subject with the confidence that we shall at least hold our own.

So now, with many "marvellous grisly groans," we turn once more to counting up the weeks to November, and hope that on a certain day in that month the "great wallops" received will not be as plentiful as in Malory's English.

5B.—

*"Slowly but surely the L.C. draws nigh,  
And all Fifth Year begin to sigh."*

Whether this is prose or verse remains to be deduced. The only certainty is that it rhymes. Even though there are another five months before the dreaded "monster" comes, and the "passing fair candidates" do or die, we are all settling down to work, and hope to gain honours, etc.

No time for "flicks" now, for there is the "irreducible minimum" to be done each night, as well as "Aufgab's," and "thundering big tasks" in Physics and English, even though Mr. N—— considers the last-named subject as "pearls cast before swine."

Mr. B—— says we can all pass in German if we want to, but some of us are not gifted with an optimistic turn of mind.

Although the half-yearly exam. is in a fortnight's time, the homework is being increased by a "constant ratio," and some are complaining that "Coriolanus" often appears in similar triangles, and the "Newcomes" are not good conductors of electricity.

We beg to announce that "Karlie" has gone off the radio, and is once again fagging. He is going to come top of the year this time.

A bombshell could not have created greater consternation than the announcement that in future on drill days, instead of being dismissed at 2.30 p.m., all boys must either attend the Debating Club, Glee Club, or drill in the playground. Needless to say, the first two mentioned are the most patronised.

It is whispered that "Bob." is the one to move motions, especially when the time draws nigh.

Now for the sporting side: We are well represented in all branches of sport. Twogood, Thornett and Cummings in soccer I., Ramsay, Phelan and Holborow in league I., Forshaw in tennis, and Massey in the "Yankee game."

We hope to do very well in the forthcoming winter sports, and the other schools will have to look to their laurels.

In conclusion, we all wish to congratulate Harry Ramsay on being elected prefect for the year.

4A.—

Umpteen pages of writing paper and no news. The plain fact is that we have nothing to write about. As usual, the class has offered plenty of suggestions—useless ones—and "the class notes must be in by the end of the week" is the Editor's perpetual war-cry. What are we to do?

Bitter experience has taught us that the writing of class notes is not easy, although it may seem so to those who offer no help, but we are determined to make 4A. Class Notes interesting, fascinating, and readable for once.

At last the sheep have been separated from the goats. The separator was the Intermediate. 4A now consists of the cream of the old third year, plus a few new chaps imported from Cleveland Street. The class has, therefore, been more fortunate in this respect than 4B.

Since returning to school this year, it has been noticed that many of the new Fourth Year-ites have begun to take life seriously, as befits their exalted position. Worthy lads!

"What is the formula for finding the resultant of two forces acting on a fundamental equation of trigonometry?" "If it is the angle which the resultant of a force makes with the velocity  $p$ , what is the cosine of  $p$ ?" This may or may not be the truth, but it is what we think we hear when we are undergoing our daily spell of torture. The mathematics has been far from easy this year, but we manage to digest it all by continuous fagging.

We have two grievances which we must "get off our chests." Number one is the lack of the most important text-books, and number two is the prospect of a three-hour home work hanging over our heads.

The deficit of books will, we hope, be made up some day. It is in this way that 4B is better off than we, for you see, their teachers got to the presses before ours did.

There are times when we wish for the happy days of Third Year again, especially during a French or Chemistry test.

In the semi-annual report of the 4A Chalk Co. (very) Ltd. (at present), we found that shares had slumped a great deal, and that the company has gone into voluntary liquidation. Upon further inquiries being made we were told that, although shares were, only a little while ago, at



a high premium, they had slumped and were well below par. This was caused by several of the directors (from old 3B) trying to unload surplus stock onto some unsuspecting foreigners (chiefly from old 3D), at C.O.D.

These consignments were, however, intercepted and confiscated by the Chief Customs Officer.

This wholesale confiscation caused the greatest slump in shares in the history of the chalk industry.

Nine of the said directors were detained in Room 10 for an hour or two.

Mr. F——, the chalk magnate, was hardest hit, for, besides losing many small pieces, he is said to have lost a whole stick of best "Waltham."

The panic caused by this event on the local stock exchange has partially subsided, but it is to be expected that the chalk industry will need some time to regain its usual force and regularity.

Although we are a very good class, we have a few spares for public auction in the near future. Any reasonable offer will be accepted. The articles for sale are:

A Wrench—fell out of the lorry when the metalwork shop was being removed.

(One) Lewis (gun)—captured in France during the War.

A Christian—going to show that we are not all heathens.

A Herd (usually Hurd)—of mixed animals.

A Crum(b)—fell from the rich man's table.

With regard to sport, we have many boys in grade teams, but were not allowed to have a team in the competition. We leave you, oh Reader, to guess the obvious reason.

In conclusion, let us tell you of our class hero. He saw a boy in the "Dom." playing "submarines." He (the hero), soon found that the game was quite unintentional so he, without hesitating, promptly went to the rescue.

4B.—

As we set out, for the first time, to record in brief, the doings of the class, since its inauguration this year, the thought that naturally occurs to one is: Are there, within this class, the possibilities of brilliant achievement in the future? Or is its course to be run in a listless, unattractive manner, leaving no exemplary "Footprints on the sands of time," to which succeeding "4B.'s" may set their pace?

Superficially, the indication is that much can be confidently expected from 4B., its members showing, perhaps, less tendency to indulge in the horse-play and ridiculous foolery exhibited so frequently, by another Fourth Year class. Again, 4B may, on the whole, be given the credit of taking things more seriously, possessing, as it does, the best mathematician of last year, together with various other prize-winners.

Here let us deviate for a moment to publicly congratulate James Newsom, Robert Laing, Neville White and Charles Johnston, upon their noteworthy achievements in the various fields of school work. Here, indeed, are the fruits of a year well spent in devotion to work. An additional word of congratulation is due to Newsom, upon his having secured the best Intermediate pass.

Regarding the academical side of Fourth Year activities, we have to report fairly satisfactory progress in English; in German, we are pleased to note that certain individuals, who had previously made up their minds that they could never hope to obtain a clear idea of anything relative to the subject, are now making an earnest attempt, perhaps realising the former "error of their ways"; mathematics sees us again with an enormous amount to be learnt, and little prospect of digesting it all. Half the class takes the subject of chemistry, the remainder proceeding with drawing, at a

higher standard. We must be more exact—there are, we believe, one or two youths, who, not seeing the value of either chemistry or drawing, are delving into history. Without casting any aspersions upon their work, we nevertheless express the hope that they may enjoy it. A few very ambitious fellows in the class—some of the newly-arrived—are endeavouring to learn French from the commencement—starting this year! Of them, also, we beg leave to trust they relish their gigantic task.

Of the sporting movements of the class, there is little to record as yet. In the C.H. Swimming Carnival, some time back, Gashler distinguished himself by winning the 220 yards Junior Cadet, and gaining a place in a couple of other events.

Regarding "footer," the class soccer players have not as yet done anything meritorious, the season having just started. A month or two, however, should bring forth some noteworthy events, with 4B. enthusiasts as the central figures.

3A.—

Flourish of cornets! Enter 3A. This most wonderful class. Let us sing some praises.

Mr. M—— once prophesied that 3A. would be a rattling good class—it is.

All our worthy members are "fagging" hard for the oncoming Term Examination. Mr. B—— said that he was rather pleased with our work, even though we were a bit noisy.

Anyone inquiring after "Smith" in 3A. is asked "which one." In fact, 3A. is somewhat overrun with "Smiths," and, strange to say, they are—er—all of the blonde type.

Room Number Seven has been submitted to our use.

Now for some sport. Our class cricket team, ably captained by G. Moir, met with infinite success, carrying all before them. We have hopes of doing equally well, if not better, with our class soccer team, of which H. Stanton is the captain. This team has already met with some success.

We wish to congratulate H. Stanton, and E. Colier on their achievements in last season's swimming. Stanton won the Grant Clark Cup, and a handsome fountain pen. There was no swimming carnival this season, otherwise 3A. might have had more to its credit in this branch of sport. However, we look forward to our next carnival, which will probably take place in December.

The two librarians of our newly-opened library, who were picked from 3A., seem to be carrying out their duties well.

Mr. E.'s new form of punishment is working well in 3A.—some wish it had not been invented.

3B.—

After carefully compiling these notes, we present them as an attempt in craftsmanship, unsurpassed in Third Year.

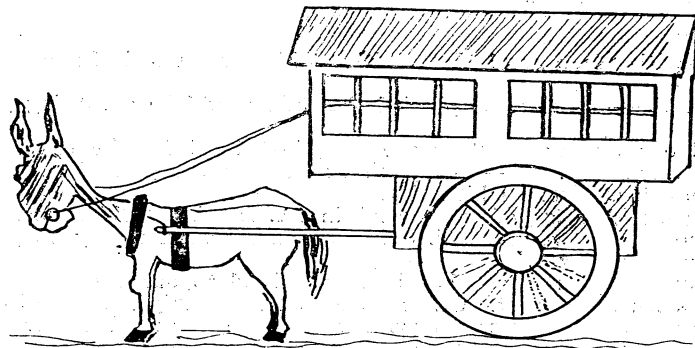
We have just settled down (after getting used to the new school, which most of our class like, inasmuch as it gives them freedom from the vulgar gaze of the Central Techites with whom we worked not in harmony), into our general routine of work. We expect to do well in the half-yearly and Inter. Exams., and show the other 3rd Year classes of what stern stuff 3B. is made.

There are a number of brilliant "genuises" in our class, whose speciality is home-work dodging. Some of the excuses given are weird, and certainly original, but generally the culprits are found each afternoon in Room 10 (which is an excellent substitute for Room 18). One boy gave as his excuse "The gas wouldn't work," and another that he had his wireless set going and he was listening-in. This cut no ice with the teacher, and the young man made acquaintance with Room 10. Isn't it a

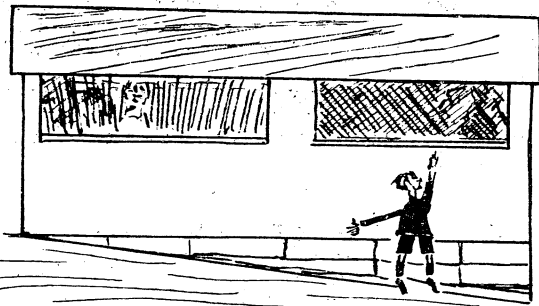
shame that teachers interfere with the progress of invention in such a manner. This chap *might* have discovered a way to overcome static or such like.

The tuckshop is well patronised by 3B. Its supporters are often seen trying to bite their way through cream buns (minus the cream), and sausage-rolls. One brainy chap suggested that Mr. B—— ought to dispense some medicine for the use of the tuckshop's patrons. Nevertheless, in spite of all that is said against it, it is noticeable that the shop flourishes.

### The Removal of The Tuckshop



When we moved, Our Tuck Shop of course, came with us.



But Alas! Our Smaller Members now, have much difficulty when buying their Lollies. J. Brain

A certain member of the class used to go in for pigeon raising, and was striving hard to acquire sufficient knowledge of German to enable him to find out the various names of bird-seed from some German magazines in the library, but having since found out that German is bad enough without mixing it up with hobbies, he has decided to give it up.

We seem to live in Room 8, and have come to regard it as a sort of home, from which we may never be parted.

We might mention that we are in Room 8 19 periods out of a total of 32. When we first went into the room some boys were in the habit of exchanging "fair speechless messages" with the young gentlemen next door through the glass partition. The teachers appeared to resent this, and a few "impots" were necessary to show the boys that Room 7 was "verboden."

Our class seems to have developed a great affection for Room 10 on Thursday afternoons. This is due to the fact that we have drawing on Thursday, and several of our "sports" are so incorrigible that Mr. A—— must perforce resort to corrective punishment.

We are lucky in having for our class patron Mr. Noakes, and in return for the persevering manner in which he works for the betterment of our young brains, we hope to do him credit by getting as many "A.s" as possible in English and History in the Inter. We are all working hard in the other subjects now, and do not intend to let our instructors down at exam. time.

The sporting side of a class is generally more interesting to the multitude than the intellectual side; and so it is with us. We have a class renowned for its sporting abilities.

So far our activities have been confined to cricket and ping-pong, although I suppose that by the time these notes appear in print, the football season will be in full swing. The practice matches are just starting.

In cricket, our team, ably captained by L. Carter, went through the competition undefeated.

We had one solitary grade cricketer, viz., Cousin, who performed in good style for 3rd Grade.

Our best bat was Carter, whose average for the competition was 25. The best bowling average was obtained by Archer. He took 22 wickets at an average cost of 2.2 runs.

Our ping-pong enthusiasts gather in the basement at every recess, and endeavour to uphold the reputation of 3B. in this exhilarating pastime. L.C., A.A., J.G., H.V., and J.P. are our best representatives.

Lately several of our boys have taken to baseball, which is a game coming into favour. Some are desirous of getting into grade. They are Carter, H. and D. Eilbeck, and Archer.

We have the cream of last year's Rugby League 3rd and 4th grades, also a few 2nd graders. Most are trying hard to get into one of the grade teams this year. We have Duff, Gocher, Paterson, Vizzard, Salvatori, Taylor, Miller, Cochrane and Powell.

Our heavyweight J.M. is going to offer his services to 1st grade. Weighing somewhere in the neighbourhood of 13 stone, we do not doubt that he will be an acquisition to the pack. Our heartfelt sympathy goes out to the opposing teams.

Soccer is not as popular with the majority of our class as Rugger. As far as class soccer is concerned, we will not have a very strong team. It will be captained by Muddle, and we sincerely hope he will not make a "muddle" of the task. We have several would-be graders, including Brownbill, Cousin, Gerdes, Tillbrook, and A.P. The last-named is regarded as a dark horse, very dark in fact. He candidly informed us that, speaking confidentially, of course, he is rather good at centre-half, and will honour 2nd Grade with his presence as a player.

3B. will now retire from the scene, having said their say, and will make way for the rest of the school.

3C.—

*Good at school, as you see,  
Good at sport, all are we,  
Give us welcome, we're 3C.,  
We're above the other three,  
And for all time, may we be.*

We have settled down to our work in the new school quite comfortably now. Our class is a mixture of old 2A., 1A., and 1C. The Inspectors visited our class recently, and their report was favourable. Mr. D—— said the other day 3C. was the best class for doing homework. Take heed other Third Years.

In our class we have prize winners from last year. Hurkett won the history prize, and there were others who won prizes for sport.

The half-yearly examination is coming shortly, and we have every confidence of some good passes in all subjects.

Our class humorist went to see "The Merchant of Venice" with us on Friday, the 24th, and when we were discussing the play in class, he said:—"The actors made one drastic mistake in the casket scene—Bassanio did not kiss Portia." Collapse of Mr. B——.

Now for sport. We had a good cricket team, of which the following were the members:—C. Coleman (capt.), G. Negus (v.-capt.), E. Stanwell, F. Poulden, H. Thomas, J. Barlow, B. MacAlpine, A. Devine, G. Wills, Douglas, and Easterbrook. We were the "runners-up" in the competition.

The football season has just started, and so far we have done well, as we won by 2 to 1 on Wednesday, which is a good start. The team with which we hope to be victorious are:—A. Devine (capt.), G. Negus (v.-capt.), L. Tregoning, J. Inman, H. Thomas, A. Smith, A. MacAlpine, B. MacAlpine, J. Kelly, R. Sedgmen, and L. Short.

3D.—

*We are the 3D. warriors,  
A class which plays the game;  
It matters not where the teacher is,  
We always act the same.*

Here we are again. The good old 3D.'ites, who are striving to uphold all the previous records of the 3D. classes.

We were lucky in securing all our text books so early, and most of them in such good condition.

This was due to our Class Patron, Mr. T., and we extend to him hearty congratulations. We think he must follow that old and wise proverb—"The early bird catches the worm," which, perhaps, we could write down as, "The early classes receive the books."

It was noticeable that two of our number were elected officials in the Junior Debating Society. We refer to E. Weeding and E. Hannah, who were elected Secretary and Vice-President.

Then again, some of the 3D. boys attended the Glee Club, which we are certain will get along remarkably well, as we have one big boy in the Club who, although having a voice like a "torn base-drum," is a wonderful helper.

We all enjoyed the play entitled, "The Merchant of Venice," and we also think that the Shakespearean Society is short of a good man to take the part of "Shylock." We refer to Mr. M——.

How we are looking forward to the coming examination, in which we are going to distinguish ourselves!

We have just discovered a hidden genius. He is "a writer of fiction." One of his "fishy" yarns was that he caught an eighteen foot shark on a No. 3 gut-line. Of course we believed him (?).

Now for 3D.'s sporting activities. Although we did not do very well in cricket, we are going to make up for it in football, our representatives being Weeding (capt.), Chapman (v.-capt.), Mahoney, Newall, Beavan, Geary, Aurousseau, Williams, Howlett, Van Gelder, Moorecroft, Mann, Raymond, Ryan and others.

Livingstone and Barr will be probably playing 2nd grade soccer. Even Fowler may achieve the impossible and represent his school in that manly sport. Chapman also has hopes for the 1st grade soccer.

We must modestly close now to give other classes a sporting chance, for 3D. is a class of sports. "True to the builder's law," would be a good motto for us.

2A.—

*Enter 2A.  
Good at work and good at play,  
That's the champion Class 2A.*

This year 2A. is again head of Second Year, without any trace of doubt. We had an average run of success in cricket, only missing one match, against 1A., which was postponed on account of wet weather. As for winter sport, we have five league players in the class, while the class soccer team has won one match, the first in the competition, to date.

The class has progressed rather favourably in its school work so far, and is hoping to obtain favourable passes in the coming examination.

The part of the class which is composed of old 1A. boys is very sorry to lose Mr. Owen, who was liked and respected by the whole school. He was a fine teacher, with a good sense of humour, the latter characteristic appealing very much to the boys.

Our English master, Mr. B——, is thinking of having a Derivations Bee between 2B. and our class. Of course it is a pity to squash 2B. in this way, but it cannot be helped.

2A. has been conspicuous by its absence in the "quad." for some time past, showing what a model class it is.

The class would be quite the most contented in the school if it were not for the obnoxious presence of "Home Work."

Ah! What a word, "Home Work"!

The class unanimously declares "Home Work" causes the first stage of lunacy. They are right!

We now find that we have to close, on account of the Infants' section of the school having to make their début.

2B.—

With no needless heraldry, trumpet blares or numerous kinds and qualities of "bosh," indulged in by other classes, we enter the Journal.

Yes, brethren of the school, we enter quietly glorious.

Of course, we are the A.I. class of Second Year, although several teachers doubt our abilities. Ah, but we don't. We know our abilities, and fully intend to use them in our term exam., when we all expect to be promoted to 3rd Year. Yes, all of us!

We think we are very fortunate in having Mr. S—— for our Class Patron. He is always looking out for anything which may benefit the class, as a whole. He has a good opinion of us, and we are working now, so that in the examination, we will show him that we appreciate his good work and his good opinion of us. Sometimes, we may get a bit "obstrepulous," then Mr. S—— lets us know.

Now for 2B.'s sporting interests. During the cricket season, we had a good time. We had a fairly respectable team, and were never in want of players if one happened to be away. We had several wins, gaining 7 points in all. Our wins were acquired by the same few men each time. Stead

caused the batsmen considerable trouble with his bowling, and attained a good average throughout the season.

We find it hard to collect a team this year to play soccer, the highest number so far being eight men. We have several representatives in grade Soccer and Rugby, namely, Stead, Alksne, Tye, Stuart, Bolton, and some others.

We have played two matches so far. The first was against 2A., in which we were defeated, 3—2, after a fairly good game. The second was versus 3D., in which we were also beaten, 3—0. This match was a walk-over for 3D.

We are glad the "comp." has not started yet, as we are in a bad way at present, and we hope that by the time it does start, the men we are in need of will wake up to the fact that unless they give us more of their services in the future, we will be a hopeless failure in the soccer competition. Of course, this does not apply to our grade representatives, as we know they are trying to do their bit.

Well, we will ring off now, and leave some room for First Year. "Hooray," till next Journal.

1A.—

"Boys who did not do their home work, stand"! So began the far-famed (?) 1A. "after school lesson exchange," and it still lives up to its reputation by having numbers of the so-called shareholders in its precincts nearly every afternoon. Mr. S—— is helping us to get ahead, and we are doing as much as we can.

We are now getting into our stride with most of the work that has been set for us. Although some of us are behind, others are excelling as scholars.

We have a "Non-Unionist Party" in 1A.—those blood-thirsty young pirates who have not paid their Union subs.

'Twas said that the old 1A. was the best class in the First Year, and the new 1A. is trying to keep that reputation that "1A. is A1 and the best class in First Year."

At chemistry many are honourable members of the "Non-Fare Paying Society."

One day an unusual row was heard in the room and the result was that some enterprising (?) youths were awarded a prolonged membership of the "Grand United Order of the Quadrangle" (by the unanimous vote of one master).

'Tis said that the fascination of cross-word puzzles and wireless have been the undoing of many ardent pupils who made resolution to do their home-work. Like Humpty-Dumpty, these resolutions had a great fall.

We have decided to invite tenders for the following:—(1) A person to act as watchman over Room 1; (2) a detective to discover the unscrupulous criminal who continually chalks the seats in the aforesaid room.

The enterprising cricket team, captained by L.C.B.—, made great progress by running first at the wrong end of the list.

The prospects of the football team for the ensuing quarter are 99½% better than the cricket prospects.

Contained in the honourable list of 1A. is an aspiring youth by the So, oh Reader, ends the sad chronicle of the new 1A.

1B.—

As this is our first year at the Technical High School, we shall first have to introduce ourselves.

We all belong to the notorious Class IB., and hope to make as good a class, in the year to come, as any that has gone before us.

As we are all aware, next month or so will see many worried faces, ink besmeared hands, blank pages, etc. All for what reason? The half-yearly examination, which picks out the workers and otherwise. Some look forward to the exam., others dread it. As Mr. H——, our Class Patron, always speaks highly of IB., we are nearly all sure of good passes.

But, enough of the exam. Let us now look up the sport of 1B.

As far as that goes, IB. is well up to the mark, though by some reason or other we did not win the class competition at cricket. During the latter season we played many exciting games with our adversaries, winning many and losing few. But, as the saying goes, "Success always comes to the trier," we are hoping for better results in the football and soccer comps.

Now that football has given cricket a broad hint to retire, which it has done, the former should soon be in full swing. Last Wednesday, April 22nd, saw 1B.'s first game of the season.

As to work, we see enough of that each day and sometimes at night, but, we might add, that our work is quite up to the standard of any other First Year class.

Time and paper are scarce.

Best wishes for success to all in the coming examination.

IC.—

IC., the youngest and the smallest, yet hopes to be the best of the First Year classes.

So far we have had little opportunity of showing our quality, but, with the forthcoming half-yearly, and the soccer competition, we may be able to demonstrate that the least are sometimes best.

Several of our teachers are not over optimistic as to our scholastic possibilities. We are expected to know a few theorems by the time we have "ziffs," and to be able to find "x" by Xmas—some we fancy, will look for it in their stockings.

Our French is not yet French, so we are told, but our singing is quite up to that of 1A. Science is interesting and would be better if there was not so much to write up. No one can make out why we are learning ancient history about Caesar and Brutus, and Caractacus, unless to get names to distinguish the Mitchells who are Steinius, Longius and Extraordinarius.

In the cricket competition we did better than some, and worse than many.

Corbett and Askin gave good batting displays on occasions, while Corbett, Tester and Snowdon were the best bowlers.

We are fortunate in having at last got a good Recorder in Rubie. Two others tried it, but soon got tired. Our class are nearly all members of the Union, only a couple of Scotchmen are getting interest on their money up till the last minute. IC. is remarkable for the number of boys who have had brothers here before them—Vercoe, Vincent, Jardine, Holden, Georgeson and Falson. Will the young fellows be as good to the school as their big brothers? Voila la question! We hope to have more to write about next time.

1D.—

We are studying hard for our first "half-yearly" exam., but of course, we are all certain (?) to pass. Some of our teachers have already given up hope, but they should consult the pupils before giving their opinion.

Our class did well in the cricket season, by defeating all the First Year classes who had the honour of trying their abilities.

The football season is now upon us, and all our thoughts (after having finished thinking of the exam.) are fixed on the approaching excitement.



The majority of our class favour soccer, but a few still prefer Rugby. There will be some more exciting times, and iodine may increase in price before the season is over.

So far we have done well by defeating IA. and IC. at soccer.

Our class pianist complains of the beautiful mellow (?) tone of the piano in Room 2, and if it was retuned, perhaps our tenor and (very) bass voices would combine more satisfactorily when singing "Der gute Kamerad," which is our favourite German piece.

Our class has a decent record to live up to, mainly at sport, and those who think we will not keep up our name will have a different opinion before we have finished with this good old school.

Owing to the shortage of time and the claims of home-work, we must finish these notes here.

There is a saying, "All good things have their end," so we will have to finish this "oration."

## MODERN BRIDGES.

In the last century and a half, engineering has made tremendous strides, mainly through the invention of mild steel, and the picturesque masonry bridges are now quite out of date and are being replaced by the gigantic and somewhat ugly steel structures of to-day, in which the average person takes no little interest.

Modern steel bridges are divided into four main groups—the Girder, the Cantilever, the Suspension and the Arch. The first and second type may have a movable portion to allow large ships to pass through, but the others are always immovable.

All bridges must have at least two supports. Many, particularly in the Girder group, have several. The main supports from which the bridge actually starts are called the abutments, while all intermediate supports are termed piers. Bridges are thus divided into spans, a span being the space between one support and the next.

Superstructure, i.e., the intricate system of girders, cables, etc., which is noticeable at a glance, is designed to transfer the load on the bridge to the supports, and to distribute it evenly on them. The superstructure of Girder and Cantilever bridges places the load vertically upon the supports, that of the Suspension and Arch bridge tends to pull them together and push them apart respectively.

*The Girder Bridge.*—The main characteristic of the Girder Bridge is that it is supported at each end. If it is long, it must also be upheld at various intermediate points. Girder Bridges are either "deck" or "through," according to the position occupied by the floor in the superstructure.

In the "deck" type the floor is carried on top of the superstructure, of which there is none above the level of the floor. The simplest form consists of several strong girders, supported at various points, carrying smaller cross-girders or joists, which in turn support the floor (Sketch 1). In the stronger and more complicated form the floor is carried on top of a pair or more of tremendous composite girders, which are composed of smaller girders and steel cables.

In the modern steel girder there are three parts, viz.: the upper and lower flanges and the "web," which may be solid or braced (Sketch 3).

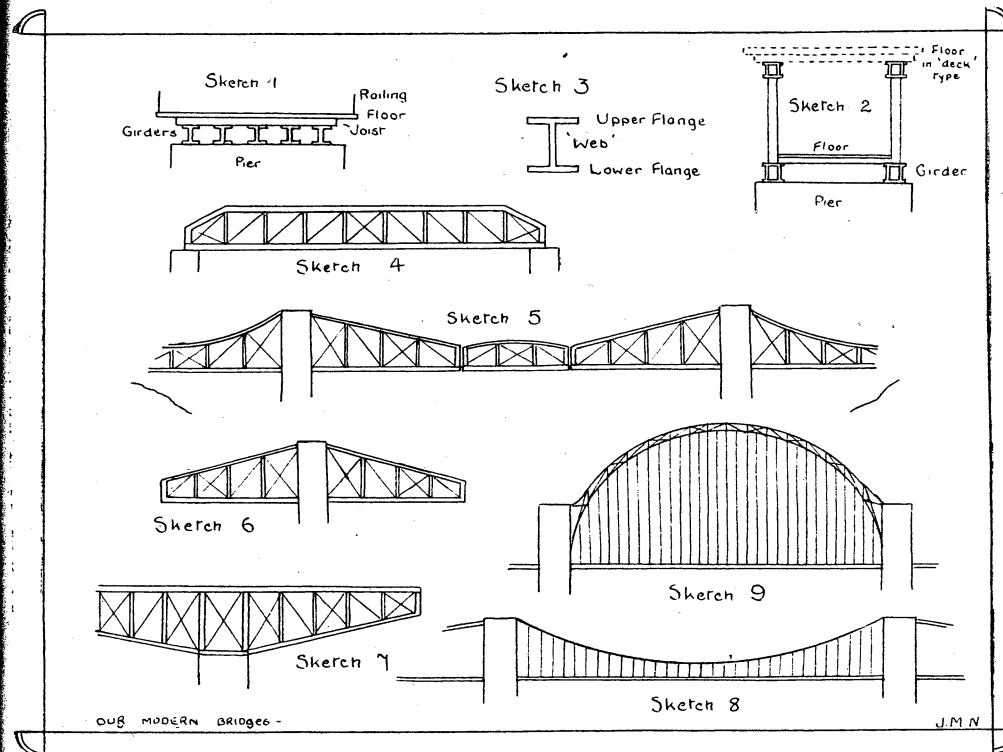
In the immense composite girders mentioned above, the upper and lower flanges consist of large "double-webbed" girders, while the "web" is formed of small vertical and oblique girders and strong steel cable (Sketch 4).

In the "through" type of Girder Bridge the lower flanges of a pair of the above immense girders carry joists which support the floor, the traffic passing through the superstructure (Sketch 2).

The majority of the bridges in or about Sydney are of the Girder type, mainly of the "deck" form, although there are several "through." (Readers will find it very interesting to classify them for themselves.)

Our own Hawkesbury River bridge is an example of the "through" type of Girder bridge.

*The Cantilever Bridge.*—Cantilever bridges are very much used for crossing large spans with strong and rigid structures, and in many cases it is the only type suitable in a desired position. Few difficulties are encountered during its erection, and these are usually easily overcome.



A cantilever is a bracket which extends horizontally from a fixed base, and upon which alone it depends for support. In one form of Cantilever Bridge there is a portion proceeding from each bank and protruding beyond its abutments over the space to be bridged. On their extremities these each carry one end of a short Girder Bridge, which links the two cantilevers together, as shown in Sketch 5.

If the bridge is to be too long for one span, one or more double-cantilevers (Sketch 6) are constructed between the two single-cantilevers, and the whole linked together by means of small Girder Bridges as before. The well-known Forth Bridge is constructed wholly of these double-cantilevers.

As in the Girder group, Cantilever bridges are divided into "deck" and "through" forms, the usual shape of the "deck" cantilever being shown in Sketch 7. Sketches 5 and 6 show the "through" cantilever.

There is no Cantilever bridge in the vicinity of Sydney, as large spans are not required to be bridged.

*The Suspension Bridge.*—It is a well-known fact that a taut rope possesses great tensile strength; for instance if a rope were drawn across a gap, it would support great weights, provided the ends are firmly held. Using this fact as a principle, the Suspension Bridge has been designed.

Two very large and strong abutments are built, and between them two thick, strong steel cables or chains are hung parallel, and to various points in these other vertical cables are fastened securely. These hang downward and are joined to strong horizontal girders which carry joists to support the floor. These long girders usually have a slight upward curve to help to support the load on the bridge. The abutments, which have to stand great strain, are stayed on the landward side by steel cables. The principle is clearly illustrated in Sketch 8.

Suspension Bridges are specially useful for carrying low-level roads across large spans, but their main draw-back is that they cannot have a movable portion.

In North Sydney there is an excellent example of a Suspension Bridge.

*The Arch Bridge.*—When extremely bulky and strong abutments are possible, the Arch Bridge offers many advantages over the other types. It is particularly useful for carrying high-level roads across long spans.

The principle of the Arch Bridge is somewhat similar to that of the Suspension Bridge. The only change is that the steel cable or chain is replaced by an immense composite arched girder, which is hinged at various points, to allow it to bend when the steel expands or contracts on changes of temperature. The principle is illustrated in Sketch 9.

The more semi-circular the arch is, the more vertically will the load be placed upon the abutments, so engineers design Arch Bridges with as high an arch as is practicable. Like the Suspension Bridge, the Arch type cannot have a movable portion.

The North Shore Bridge, now under construction, will be the finest specimen of Arch Bridges in the world.

## THE DREAM.

'Twas late at night, and I had been perusing,

Some portions of that wond'rous tome of drama,  
And then, it seems, that my mind fell to musing.

'Fore fancy's eye there came a panorama,  
Arising from the book, and onward moving

Into the future's murk. In slow procession,  
Debating, laughing, or with frowns reproving,

A motley crowd passed: some of sad expression,  
Who walked apart in silence: others, striding

With stately step and haughty mien, attended  
By courti'rs gaily dress'd. Then, softly gliding,

Beheld I forms of feminine charm, sweet blended  
With beauty of the dress. Methought I gazed

On Richard, war-begrim'd: another figure,  
From Agincourt just come, with sword up-raised,

Appeared, escorting him on whom the rigour  
Of want and cold had made its deep impression,

Deploring unrequited love in daughters.

Then heard one sounds of brawls in quick succession;

'Twas Falstaff and his cronies, inn-resorters,  
Molesting old Sir Toby in their knav'ry.

Whom saw I with his friend Antony, walking—  
Was't he whose life distinguished was with brav'ry,

Who reasoned with them who his life were stalking?  
They passed: a sober pair next trudged on slowly;

One seemed to me Petruchio, who ruled  
His Kate, once bold, now dutiful and lowly;

In arts domestic by her lord, well-schooled.  
Now flew by hosts of joyous elves, pursuing

Repulsive witches: now Titania, dancing  
With Oberon and Puck, old loves renewing.

Then Romeo and his lost love, advancing,  
Sad visaged, in impassioned consultation.

And so there moved in varied sort, the creatures  
Of our immortal bard's imagination.

Confused grew the voices, blurred the features,  
And slowly faded quite away—the dream.

GORDON R. EDWARDS (4B.).

## HINDU WEDDINGS.

Among Hindus everyone must be married and girls must be married, at the latest, by the time they are fifteen or sixteen years of age.

They are generally married when ten or twelve, and, at times, they are married even when only tiny girls. Boys are not, as a rule, married till they are nearly twenty and even then there is no hurry. Girls are married only once and when they become widows must remain as such all their lives. Men may marry several wives at once, and if a wife dies they may re-marry as soon as they please. They seldom wait more than a month or two. As there are only very young girls from whom to choose, it is quite common for an old man to have a little girl wife.

Naturally in at most a few years the child is left a widow, and that is the reason there are so many widows in India, 30,000,000, or one-tenth of the population, a number five times as great as the total population of Australia.

New marriages are arranged by professional "match makers." When parents have a child to be married, they send for one of these men and ask to see a list of eligible boys or girls. Suppose a girl is to be married: She is not consulted in the matter. The parents enquire as to the caste, position, education and appearance of the boys on the list and when they have chosen the one they think might be suitable, some of the male relations of the girl (her father, grandfather, uncles, etc.), interview the boy's parents and see him. The boy's parents ask the girl's relations questions relating to caste, appearance, education, of the girl and some of the men (but not the boy himself), may even go to see if she is what her relations have made out.

The qualifications of a good bride include the following: She must be a good cook; she must be beautiful, with a fair skin; she must have no deformities; she must not be too fat or too thin; she must be able to read and write (if the prospective husband can). Her parents must have sufficient money to buy bangles and ear-rings and nose rings, and anklets for her, and in addition, be able to pay a good sum to the parents of the boy. Instead of giving money, they may promise to pay for the education of the boy at a good college or university.

When everything is arranged to the satisfaction of both parents, the astrologer is consulted, to find an auspicious day for the wedding. He fixes the day and the hour. The ceremony must be at night—for Hindu weddings never take place in the day-time. They generally take place between midnight and 3 a.m.

### THE WEDDING ITSELF.

The day arrives and the girl is kept inside all the day. In the afternoon her mother and some of her women relatives take a flat basket on which are some duck eggs, rice, grass, vermilion, etc., and go to the bank of a river (if there is one in the neighbourhood; if not, to the side of a tank), and there they perform a childish play with these things, throwing them into the water one at a time. This ceremony is supposed to bring good luck to the girl. Then each of the girls and women present fills a little brass pot from the bank, puts a mango leaf in it and carries this water back to the house, for mango leaves are supposed to bring good luck, and are hung up in the house at the time of the wedding. With this water the girl is bathed and then dressed for the wedding. Neither bride nor bridegroom is allowed to eat anything on the day of the wedding.

During the day a cloth cover is put up in the yard of the house. It looks like a large tent without any sides. All around banana trees are planted for decoration, and coloured papers are strung up here and there. Seats are arranged for the men, but the women will all have to stand in the background and out of sight. The whole place is lighted up by acetylene gas or kerosene lamps.

When the time arrives, the bridegroom is seated on an oblong board on the ground. Another is at his side for the bride. The bridegroom is now dressed in scarlet silk and a crown (something like a wedding cake and made of pith and gaudy paper), is put on his head. Before him are seated several Brahmin priests, who keep on muttering incantations in "Sanskrit," which scarcely anyone present can understand. They also go through a form of worship which consists mostly of lifting up and pouring out with a copper spoon melted rancid butter.

When the right moment arrives, the bride is carried out on the other board. She is dressed in a bright pink sari, which completely covers her face, and which is generally embroidered in gold. She also wears all the jewellery for which the relations of the bridegroom have bargained. As she is carried out crackers are let off, a "band" beats tom-toms, the women give a queer cry, and the bride is carried around the bridegroom. This is done seven times and each time when she is in front of the man she has to bow to him. At the seventh time her father and mother turn their faces (to keep away bad luck), some one pulls back the bride's sari, and she and the boy catch just one glance of each other—the very first—and then the sari is pulled back again. She is then placed beside the bridegroom and the priests go through a number of strange performances, all like play to us. The two hands of the bride and bridegroom are tied together with a rag, and flowers and mango leaves are put on them. The priests mutter more and more incantations, and the noise of the crackers and tom-toms becomes deafening.

Then English visitors are told that is all they can see, and they are taken away to be "fed" with Indian sweet-meats, made of sour milk, sugar and oil. These are most awful mixtures to the newcomer, but gradually one can acquire a taste for them.

Wedding celebrations go on for days and then several hundred people are feasted. Crowds of professional beggars visit the house and carry away tins full of food after they have eaten as much as they can.

In a couple of days' time the little girl is taken away to her father-in-law's house, where she must live for the rest of her life.

About once a year she is allowed to visit her own father's house.

She must never speak above a whisper, must never have her head uncovered, must never speak to her husband in the presence of other men, must never let her face be seen by another man, and must do a very large share of the work of the house.

For the wedding the bride's clothes are supplied by the bridegroom and his clothes by the bride's people. During the ceremony the bride's part of the affair is looked after by one priest and another watches the bridegroom. During the ceremony the money promised by the girl's father is handed over to the bridegroom's people.

—S.C., 3B.

### TWO-AND-SIX.

Mr. Henry Martyn, of the firm Martyn, Flynn and Herne, brokers, in the City, left his office at half-past five on the evening of Thursday, the 13th March. He walked quickly along Smith Street, pausing outside the Bank of Utopia to buy an evening paper from the old man whose customer he had been for many years. Drawing a few coins from his pocket, he gave a penny to the old man. Half opening his paper to glance at the head-lines, Mr. Martyn attempted to slip the spare coins into his pocket. Two, a penny and a half-crown, dropped and rattled on the pavement. The old newspaper-man stooped to pick them up, muttering as he straightened his back again, "All right, sir . . . Only a penny, sir." Mr. Martyn smiled as he thanked him, and pocketing the coin, he walked briskly away.

A few minutes later the old man stooped down again, moved his foot, picked up the half-crown, and put it in his pocket.

Mr. Henry Martyn walked some distance after leaving the newspaper-man, and boarded a taxi in a rank by the side of the street.

Mr. Martyn instructed the driver to drive to the XY Club, and settling himself comfortably in a corner, began to read the financial news. Nearing his destination, Mr. Martyn folded up his paper, picked up his umbrella, and leaned forward to direct the driver, "Just round this corner—only a few yards. . . There it is! No, no, man—on the right, on the right. . . Oh, all right, don't bother. This will do. Just pull up here and I can cross over."

As Mr. Martyn got out the driver said, "Sorry, sir, I couldn't cut across the traffic."

"Oh, that's all right. What's the fare, please?" The man glanced at the meter and replied with an air of indifference, "Three and six."

Once again that evening Mr. Martyn pulled out a handful of coins. He found that the coins amounted to about two shillings—but no more. "H'm, thought I had a half-crown somewhere. Have you got change for a pound note?"

"Sorry, sir."

Mr. Martyn paused for a moment. "Look here, I'll go over to the Club and get this note changed. By the time you've come round to the other side of the road I'll be out again." Mr. Martyn stepped into the road, and nearing the middle he looked back to point out to the driver the doors of the XY Club. Suddenly there were cries. "Hi! Look out!" shouted someone. "Oh, God!" shrieked a woman.

Too late . . . . The side of a 'bus smashed against Mr. Martyn's head. He dropped like a log to the ground, right under the back wheel, which made sure of him.

Within ten minutes the ambulance was on the spot; a crowd had gathered round the limp body of Henry Martyn. A policeman gave the command: "Move along, please." Someone in the crowd asked: "Is 'e 'urt?"

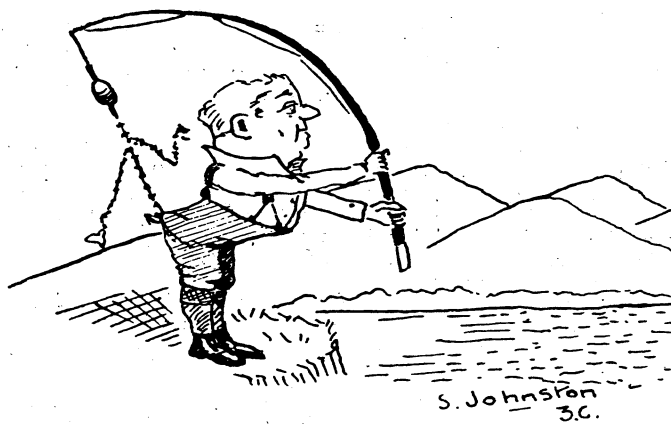
"Dead. Move along, please."

At a quarter to six in the evening of Friday, the 14th March, the old newspaper-man in his usual place wondered why one of his regular customers had not been along for his evening paper.

The hour chimed. . . .

"Wonder if 'e s'specs anythin' abaht that there 'arf-crown," mused the old man to himself.

N.W.N.



— The extremities of a line are points —

### SOME ELECTRICAL HINTS.

Many boys of this School are interested in electricity or wireless to some degree. I propose to give here a few hints that have been useful to me and which I think cannot cause anyone to take a violent dislike to the subject.

First of all, although no one knows what electricity is, there are many ways of knowing what it will do, and thus, with a little knowledge and mechanical skill, any boy can build instruments and models that will operate quite satisfactorily and provide delight for the builder for many a day.

There is one law of electricity that comes more into everyday use than any other, and that is Ohm's Law. The most popular version of this law is that in any electrical circuit, the current flowing is directly proportional to the electro-motive force, or "voltage," and inversely proportional to the resistance.

As you will observe, there are three things that enter into the law, namely current, E.M.F. and resistance. Each one of these is measured in a well-known unit that has been scientifically derived under definite conditions. The unit of current is the ampere; of E.M.F., the volt; and of resistance, the ohm. Most boys have respect for the volt that is almost wholly due to the fact that they occasionally see a red notice, inscribed "DANGER, 240 VOLTS!"—not infrequently ornamented with a skull and cross-bones. It is quite right to steer clear of what you do not understand, but better still, to try to understand, and hence know why you should steer clear!

To most boys the ampere is a mysterious word, only used by electricians to put them into a subdued state of mind, while the ohm is seldom heard of, except, perhaps, on the back of a pair of wireless head-phones.

Now, an ampere is the current which would supply one coulomb of electricity every second. The easiest way to explain what a coulomb is, will be to liken it to a "bucketful." Thus we get "a bucketful per second." If you were speaking of the amount of water flowing over a waterfall, you would perhaps say, a hundred bucketfuls per second. Now, suppose there was one word for "bucketful per second"—let us call it a "fall." Then one could say that the water was going over the waterfall at the rate of a hundred "falls." Now, perhaps the meaning of "an ampere" is more clear. It is not a quantity of electricity. It means a "quantity per second."

A volt is that electro-motive force which causes a current of one ampere to flow against a resistance of one ohm. To explain: If you were speaking of the pressure of steam in a boiler, you would say, "fifty pounds per square-inch." That pressure causes the steam to flow into the cylinders where its energy is expended in overcoming the resistance offered by the piston head. Thus E.M.F. or "voltage" in electricity is that which causes a quantity of electricity to flow through a circuit. If there is no "voltage," there is no flow of current. Now, if the resistance that it is overcoming is fixed, then the greater the E.M.F. the larger the current. Also, the greater the E.M.F., the greater the resistance through which it can force a current.

Lastly, an ohm is that resistance which is overcome when one volt causes a current of one ampere to flow in an electrical circuit. Resistance may be likened to the opposition experienced when the steam in a cylinder presses on the piston head.

If you write down in symbols Ohm's Law you will find that:—

$$\text{Current} = \frac{\text{E.M.F.}}{\text{Resistance}}$$

or, supposing C to represent current in amperes, E the E.M.F. in volts, and R the resistance in ohms,

$$\text{then } C = \frac{E}{R} \text{ or } E = CR \text{ or } R = \frac{E}{C}$$

Thus, if two conditions are known, the third can be found. Another measurement, this time of power, which is greatly used, is the watt. As most boys know, 746 watts are equivalent to one horsepower, and in electricity, a watt is numerically equal to one volt multiplied by an ampere. If W represents watts,

$$\text{then } W = CE.$$



Now, from the first equation above, we know that

$$C = \frac{E}{R}$$

$$\text{Substituting in the last } W = \frac{E}{R} \times E \\ = \frac{E^2}{R}$$

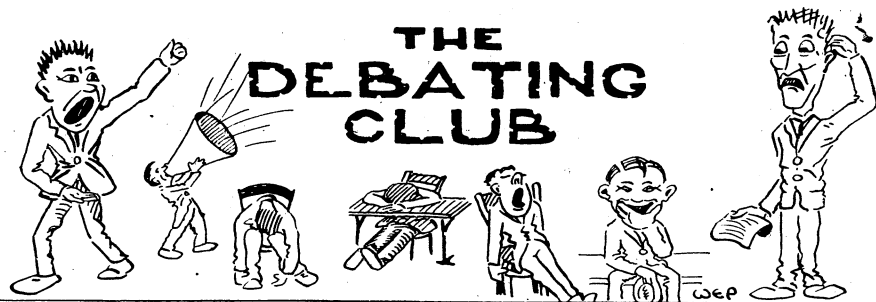
$$\text{Using the second equation } W = CE \\ = C \times CR \\ \therefore W = C^2R$$

Now you wireless enthusiasts, here is the chance to find the amount of power your "phones" are working on. You know the resistance of both, the maker will probably give the resistance between the filament and plate of your valve, and you know the voltage of your "B" battery. So, using

$$W = \frac{E^2}{R}$$

you know to a fairly accurate degree the power available for your head-set. I could give many other examples, but I think you will get more fun finding them for yourselves and calculating what you want. There is a thrill in being able to say, "I built that model to my own design." Just try it.

A. H. MUTTON, 5A.



#### SENIORS.

This important school activity has been revived with enthusiasm during the second term. Several difficulties, such as the absence of a suitable meeting place and the trouble experienced in persuading any but a few old stalwarts to remain long after school, have been overcome since our move to the new school. By arranging meetings on parade afternoons we have been able to secure an average attendance of seventy, and the enthusiasm shown by all has raised hopes of great success when the younger speakers have more experience and practice in debating. A promising feature so far has been the enthusiasm of some of the younger members of the upper school, who have taken the opportunity of speaking briefly and often much to the point, after the main speakers have opened the debate. In fact, these

younger speakers have at times shaped better than some members of the chosen teams.

At our first meeting candidates addressed an imaginary election meeting, and met with enthusiastic receptions. Messrs. Young and White delivered policy speeches of the Nationalist and Progressive Parties, while Cameron gave the Labour point of view. Never before had Spence been suspected of Communist sympathies, but he promised his audience unheard of things, including the "abolition of school discipline," and was enthusiastically applauded.

The second meeting was devoted to a debate on the subject, "That in all large Government contracts Australian tenders should be given preference." Messrs. Young and Twogood supported the negative and affirmative respectively. Mr. Twogood and his team urged that Australian secondary industries needed support from such Government contracts, and instanced the building of the two new cruisers, condemning the policy of having these constructed abroad. Mr. Young and his opposing team defended the policy of the Commonwealth Government on the ground of the enormous saving of public money effected.

The subject for the next debate will be "That Trade Unions Should be Abolished," and a lively debate is anticipated.

Some promising speakers are being unearthed, and we confidently look forward to the time when we will be in a position to challenge other high schools.

The following officers have been elected for the Senior Section of the Society:—President, C. Taylor; Vice-Presidents, C. Tyson, R. Salmon; Secretary, G. Campey.

#### THE JUNIORS.

A Debating Society for the junior members of the school is an entirely new institution. On present indications it looks to have a bright future. The membership is about sixty, and the call for speakers meets with a satisfactory response. Any member who continues long merely a listener will later regret his folly. It is noteworthy that those who have once broken the ice are eager to participate in subsequent debates. This in itself should be all the inducement necessary to encourage any member suffering from stage fright to make his debut at the earliest opportunity.

So far two debates have been held. The first dealt with the resolution "That city life is preferable to country life." Arguments were drawn from a wide field, and the sides evenly matched. The vote taken at the conclusion favoured the opposition, although the adjudicator was of the opinion that the movers had had the better of the conflict. At the next meeting the "White Australia" policy was the bone of contention. The side led by Mr. Chapman overwhelmed its opponents, and won both the majority of the votes and the verdict of the adjudicator.

Lecturettes are set down for the next meeting, and something interesting is anticipated.

#### GLEE CLUB.

In matters musical, we have hopes of a successful year. The Glee Club has had several practices, and some good voices have been discovered. The piano—a Feurich—has been thoroughly done up, and if sufficient pupils apply the orchestra will be formed again.

The difficulty experienced during past years in getting lads to stay behind for practice has been overcome by arranging for the singing to take place during school periods, at the same time as drill is held.

## LORD HOWE ISLAND.

*Situation.*—The Island is situated about 420 miles from Sydney, and is due east of Port Macquarie. It lies 300 miles from the coast-line of New South Wales, after which the nearest land is Norfolk Island, about 400 miles to the north-east. It is surrounded by an enormous stretch of ocean, and is such a lonely little place, and, so far out of the way of all other lands, that it was never inhabited by human beings until whaling-ships left some men there about a hundred years ago. It was discovered by Lieut. Lidgebird Ball during a voyage to Norfolk Island in the year 1789. His name has been perpetuated in the names of the mountain called "Mt. Lidgebird," and of a wonderful rock lying about eighteen miles to the south, which is called "Ball's Pyramid." This is 1800 feet high, but its base is said to be less than a mile round.

*Population.*—There are, roughly, about 100 people living on the island at present, who have settled there and become farmers of a kind, and they also derive part of their livelihood from the export of seeds of the "kentangia" palm. This latter industry has suffered greatly through the ravages of rats, which were introduced onto the island a few years ago, when a ship was run ashore to prevent her from sinking, and the industry is accordingly in a very bad way.

*Physical Build.*—The greater part of the island consists of volcanic rock, but there is a very peculiar sandstone uniting the volcanic portions, which is of great interest to geologists. It is supposed to have formed above the water, instead of beneath it, as do most sand-stones, and it has some interesting fossils buried in it. These include a land-shell, which is still very common under logs in the bush, and the bones of mutton-birds, which have been buried in their burrows in the sand before it was turned into rock. But the most interesting is a large fossil turtle, of which lots of bones and even a few eggs have been discovered, which prove it to be quite different to any turtle at present living in the world.

*Outlying Islands.*—There are several large rocks or islets surrounding the main island, of which the most striking is "Ball's Pyramid," mentioned above. But more interesting are the Admiralty Islets—a group of almost bare rocks on which countless sea-birds nest every year. Another feature is an extraordinary cavern, which extends right through the largest islet, and which is so large that a small boat can be rowed through it from one side to the other in very calm weather. This cavern is a huge channel through which molten lava used to flow from the crater of one of the old volcanoes which formed the island, and its rocky sides show very clearly the marks made by the molten rock. Sea-birds which nest on these islets belong to about six different kinds, the most plentiful of which are the "wide-awake terns." These arrive from all parts of the neighbouring oceans about September, and commence nesting. They lay a single, beautifully mottled egg, which is very good eating, and the islanders go out to the islets during the early part of the season and collect the eggs by the tubful. When a bird is robbed of its egg, it lays another, and perhaps even a third if it is so unlucky as to lose its second. The young chicks are somewhat like ordinary fowl chickens, and are so plentiful in the middle of the breeding season that one has to be very careful where he puts his foot if he wishes to avoid crushing the young birds or the eggs. As they grow, they become covered with feathers of a sooty-black colour, speckled with white, and are quite different from their parents, which are of a pure white below and rich black above. They are taught to fly by their parents, who take them out to sea during the day, and return at dusk, until they are able to take care of themselves, when they fly off to different parts of the ocean and do not return until the next year. It is

one of the greatest mysteries to scientists, who cannot account for the wonderful instinct which directs a bird's flight back to the island on which it was reared, when the time for it to nest and bring up young of its own comes round.

Other birds on the islets are the large gannets, whose white bodies are seen on the bare rocks from much farther off than the other smaller birds. When first hatched, their chicks are sprawling, naked things, but they soon develop a white fluff, and maintain it till they reach a size almost as big as their parents, and are very comical in appearance.

*Vegetation.*—A few years ago the vegetation of the island was one of its most beautiful and most wonderful features. Looking down from a height, the thick forest was everywhere covered by the enormous banyans, with huge trunks 60-80 feet high supporting the massive branches above the tops of all the other trees. The banyan differs from all other trees in that it grows downward instead of up, and it has a large number of trunks instead of the usual one. It commences life from a seed, which is dropped by a bird in a crevice of some tree high above the ground. This seed sends down a long root to the ground, and once this is firmly established, it commences to swell and increase in size very fast. It gradually suffocates the tree on which it has grown, and soon sends down other roots and becomes quite independent. Its big branches soon spread out over everything else, and, by dropping still more roots, which change into great trunks, begin to cover a very large area. It is said that one tree in the old days, covered as much as three acres. After a time the older part of the tree dies, and its outer branches continue to grow forward, so that, in a very long period, the tree may be growing far from the place it first started life. But the banyan, which was the most noble tree of the island vegetation, is doomed to disappear, owing to the ravages of a tiny fly which attacks it leaves, and kills them so fast that the tree cannot breathe. These insects were always there, but have only become numerous lately because of the absence of the birds which preyed upon them; these birds have been killed off by the rats, so we may say that the destruction of the banyans is a result of the introduction of the rats.

The most important tree to the islanders is the kentia palm. This grows in extremely thick forests, and it would be hard to think of anything more beautiful than these palms growing in their natural state. The kentia palm is quite the best known of all palms in the world, because it is the common table palm which you have all seen growing in pots. It is grown by the florists in all parts of the world. It grows under conditions which would kill any other palm, and is particularly beautiful, so there is a great demand for the seeds. As the palm does not grow anywhere else naturally, the export of the seeds from the island is carefully controlled by a Board which distributes them to buyers all over the world. The seeding season lasts for about six months of the year, and the collection of the seeds is very hard work. I have collected them, and have had to climb the trees with a strap over my ankles, and after shelling them into a bag, have had to carry them out from the forest to the boats over the very roughest roads imaginable. Only those who have seen it done can know what extremely hard work this seeding is, and the island boys flatter themselves that there are very few, who have not been trained up to the work from earliest youth, who could climb the trees, or even carry out the seed. A strong man will climb some hundreds of palms in a day, and then carry out four bushels, weighing 240 pounds, upon his back. When the sea is rough, and the surf so heavy on the rocks that a boat cannot be brought near the rocks, the bags of seed are dragged from the shore to the boat on a line through the sea, and those ashore have to dive into the sea and swim off to the boats. If I told you all the difficulties of seeding

you would think me guilty of exaggeration, but I can assure you, it is one of the most trying jobs, and under some circumstances, a very dangerous one as well.

Another export of the island is pigs, and the island pigs are considered to be among the finest that are sent to the Sydney market. The reason for this is simply that they are fed almost entirely upon milk and sweet potatoes. There is lots of milk, because the cows feed in paddocks which do not know what real drought is. People talk of drought on Lord Howe if there is no rain for a fortnight, and a month without rain is practically unknown. Large areas are cultivated for sweet potatoes. So the pigs grow very fast, and when about five or six months old, are sent to market and bring in about five or six pounds each.

—R.A.B., IA.



The new place has only one advantage over the old. It is nearer Moore Park. Boys can thus have a strike or a run more conveniently. In most other respects the sporting section is less cared for, and more hampered in its work than before.

The boys of the school are an average lot of High School boys—gradually getting less proficient year by year. The newcomers compare very poorly with the newcomers of 1914 or 15. The “freshers” are very girlish and seem to be still attached to their mother’s apron strings in many cases. This is particularly noticeable as very few boys from first year are offering for Rugby League or grade Soccer. Football is the boys’ game above all else. More of it later.

Our cricketers, as usual, did well in the grades, but are not champions. First grade play in spasms. We defeated Central Tec. and then failed badly against Fort Street, but made amends by gaining an outright win against the strong Parramatta team which had defeated Fort Street. Incidentally, it is the first time our first graders have gained an outright win. Other teams have often been beaten outright. Third grade are undefeated, but are not at the top of the division, as they have played several draws. The thirds were fortunate in finding W. Stewart, who is a good dashing bat, and good change bowler. Those competitions continue in October and finish at Xmas time.

The classes are keen on cricket and we were able to institute a class competition, though there was not money enough to get material to carry it out as we wished. That competition will also end at Xmas.

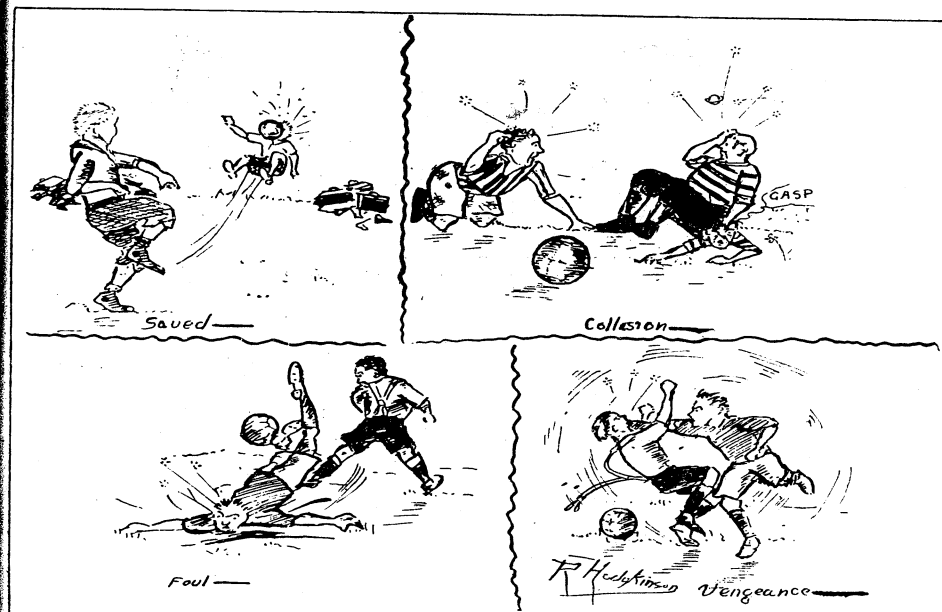
The winter games have started. We have full entries in all but Rugby Union. Several teachers consider that this school should play the old code and fancy that the boys are influenced to play the new. They are loath to accept the assurance that our boys are free to choose the code they want. The boys, however, know.

Our League teams are comparatively good and expect to do well. They are not keen enough on practice, and must expect to make training sacrifices if they expect to hold their own against teams that do train.

The Soccer teams are medium and should again occupy positions high on the lists.

We have again entered a baseball team, but its numbers are short. Baseball is a good manly game. There are many big boys who should be playing it rather than hanging round the corners or the picture shows.

Our tennis teams are just medium. We do not hold out much encouragement for the tennis players, because it is not a good teams’ game and gives nothing in the training of qualities which we prize most in a boy. Tennis is a good game—none better for exercise—but it is not a game for a real boy when the leather is being booted about.



There are sixteen teams in the class soccer competitions, which, owing to the sacrifice of the referees, are going along nicely.

We called for referees from boys not actively engaged in the competitions, but no one offered. There are many Fifth Year boys who could have volunteered to do that much for the other boys. So now we get players to referee first and play afterwards.

We have not been able to revive the Boxing Club owing to the need of a suitable room.

The swimming carnival, deferred from March, will be held in December. We swam off the school championships so as to get the Grant Clarke Cup winner, and he turned up in Stanton, of 3A., who quite outclassed all other competitors. He should be a great help to us in the next C.H.S. Carnival.

Our Sports Carnival will be held in September.

## SPORTS ACTIVITIES, 1924-1925.

The sporting activities were carried on as much as usual.

Teams from the school took part in practically all the competitions provided by the P.S.A.A.A.

In these competitions the school did satisfactorily, fielding full teams on all occasions and playing the game keenly and in good sporting spirit. Teams won the League B. and Soccer B. premierships.

The Annual Athletic Meeting was quite successful, though the quality of the performances was not up to the standard of previous years. The school is very grateful for the generous support of the parents in subscribing funds for the prizes.

The Annual Swimming Carnival will be held early in December. It is hoped that by holding the carnival then, boys will be in better form and more inclined to compete in the C.H.S. carnival than in previous years. Last year the school won the under fourteen years swimming shield, but that was through the efforts of two boys—the others not deigning to compete. Now that we are closer to practice grounds, it is hoped that boys will take a greater interest in their games and that the quality will improve. Present appearances show that the new arrivals will add something to the school's sporting progress.

## CHAMPIONSHIP PRIZES.

*Senior Athletic Cup.*—Presented by Angus and Coote, won by the boy gaining most points in Senior Championship events during the year: Winner, A. Brewer.

*Junior Medal.*—Won by the boy gaining most points in Junior Championship events during the year: Winner, R. Peadon.

*Junior Cadet Medal.*—Won by the boy gaining most points in the under fourteen Year's Championship events during the year: Winner, S. Cousins.

*Victory Cup Medal.*—Presented by Messrs. S. T. Farnsworth and F. Atkins, won by the boy gaining most points at the Athletic Meeting: Winner, F. Boorman.

*Clarke and Grant Cup.*—Presented by Messrs. C. Clarke and T. Grant (Old Boys), won by the boy gaining most points in Senior Swimming Championships: Winner, H. Stanton.

*Max Genge Medal.*—Presented by Max Genge (Old Boy), Tennis Singles Championship: Winner, C. Madden.

Prizes corresponding to position in list were given to pupils whose names are arranged in order of merit, according to points scored in all events at recent athletic and swimming carnivals.—H. Stanton, S. Cousins, R. Peadon, F. Boorman, C. Taylor, A. Brewer, E. Phelan, D. Jones, T. Henderson, R. Sandford, D. Alksne, J. Lamont, G. Campey, W. Welsh, H. Ramsay, R. Symth, L. Strong, F. Lucas, A. Young, J. Tregonning, A. Jones, A. Johnson, C. Bunning, R. Bartholomew, C. Madden, E. Bertwistle, A. McIntosh, C. Sutton, E. Gregory, K. Robertson, J. Gocher, E. Newall, G. Morrow, M. Peryman, E. Miles, K. Duff, E. Colyer, R. Longworth, R. Gorrell, C. Tregonning, S. Enemark, T. Chad, P. Harrington, A. Barnard, E. Hore, R. Wrench.



## THE OUTINGS CLUB.

The Outings Club spent several weeks of the Xmas vacation at Sussex Inlet, and had the usually excellent time. The party consisted of the seasoned members and thus an enjoyable and profitable time was ensured.

We are sure that that life does the city boys a lot of good. Everyone grew well—everyone put on weight. One lad put on 14 lbs. in the five weeks. We will not go into details this time, but would advise all to take the outing if the opportunity comes their way.

At Easter the outers again went to the Inlet and put in the whole ten days and a little bit extra. The time went all too quickly, except the night at Nowra in the railway cars. There were several boys new to the camping life with us, and though a little finical as regards meals, they were a fine lot of boys, who worked in splendidly with the others.

Our campers now need none of the urging of the early days. Camp duties are done at once; wood and water got readily as needed. Best of all, everyone falls in with the general wishes and is ready for swimming, boating, worming, fishing, walking, football, cricket, baseball, possuming, snaking, ping-pong, etc. One thing lately has fallen into disuse, and that is the Camp Rally. There are reasons, I suppose. Boys live such a strenuous daily life that they are ready for bed very early; the nights mostly were quite cold; the voices of many are cracking; the camp carries a gramophone and plenty of records, etc.

The camp Rally, however, is dear to our hearts, for we feel that the chats, swapping of experiences, and answering of questions, widens the outlook of the boy, often puts his enquiring mind on the right track, and may even give him new interests in life's long course. We hope that boys will keep up their song practice, will learn the ukelele and other instruments, so that our rallies will again be real old timers.

There were many incidents we would like to describe for you, but time does not permit. Ernie Powys could illustrate for you "Always late," and how much it costs, while Jack Black will never think of the Inlet but in conjunction with "new hat overboard," and our homeward journey!

Our trips to the Inlet are helped and made more enjoyable by our good friend, Mr. W. Bennett, who is always at hand ever ready to help or advise. Our friends at "Christian's Minde" again gave the boys an evening, which they all enjoyed. Country people have always been very good to our boys on tour or camp. We believe it is deserved. Our campers are a fine lot of boys, for whom it is a great pleasure to do what is done.



## TECHNICAL HIGH SCHOOL UNION.

CASH STATEMENT, For the Year 1924.

### RECEIPTS.

Balance, 1923 .....	£3	17	2
Late Sales Journal .....	0	2	0
Total Subscriptions, 1924 .....	210	5	0
	£214	4	2

### EXPENDITURE.

Sport .....	£110	1	6
Journal A. Nett Cost .....	28	11	6
Journal B. Nett Cost .....	36	3	3
Journal C. ....	23	4	0
Library .....	10	0	0
Wireless Club .....	2	6	8
Hobbies .....	2	0	0
Bank Fee 10/-, Cheques 8/4, Receipts 5/-, Boys' Fares 5/-, Stamps, Envelopes 3/- .....	1	11	4
Total .....	£213	18	3
Cash Balance .....	0	5	11
	£214	4	2

Audited and found correct,

C. HORE.  
H. PEACH.

A. V. LUKE,  
Hon. Treasurer.

## NATURE'S WONDERS.

Have you ever sat at Echo Point, very early, on a still morning, and watched the fleecy, curling mists creeping slowly up the cliff face, only to be dispersed by the breeze at the top; and again, as the day grows old, have you ever gazed upon the lofty cliffs of Mount Solitary, that rise from out the verdant woodlands below and veritably hurl themselves in defiance, into the scurrying clouds?

Have you descended into a woodland gully, where everything is silent, save for the trickling of the near-by mountain stream and the singing of the multi-coloured parrots?

Or have you ever sat in a mountain gorge and listened to the echo of your voice chasing itself among the cliffs that tower hundreds of feet above you?

Have you ever gazed on a distant range of snow-capped mountains and wondered at the scurrying snow mists, playing upon their peaks, high in the azure heavens?

Oh! have you ever watched the fathomless sea dashing itself incessantly against a mighty cliff as though trying to gain some coveted prize?

When one has done these things, one realises the magnificence of God's works and begins to think that man is a very puny object indeed.

G.M., 5A.

## THE WIND.

I come from lands of eternal snow,  
Where oft I visit the Esquimaux.  
Through sweeping forests of sturdy pine,  
Snow-laden I rush and howl and whine.  
In islands of the tropical seas,  
My voice is heard on the ev'ning breeze.  
I sport with breakers upon the shore,  
For I love to hear their thund'ring roar;  
I watch them dash on the yellow sands,  
Yet they are playthings within my hands.  
Often through woodlands, in Spring I pass  
And gather scent from the flow'rs and grass,  
To bear it on over hill-top and down,  
To the dusty, smoky, busy town.  
I have seen the hunter bend his bow,  
Where wide and beautiful rivers flow.  
I rock great ships on the boundless deep,  
As a mother rocks her babe to sleep.  
I cause the storm that slays and alarms  
And it is I who, the sea, becalms.  
The mighty ocean obeys my will,  
And at my bidding the clouds stand still.  
Mine is the key to the boundless air,  
And I am the lord of the atmosphere.  
The whole of the world is my domain,  
And the clouds form the throne from which I reign.

## EMPIRE DAY.

On Monday, 25th May, the scholars, teachers, and a number of parents and friends of the Technical High School went to National Park, and there amidst the pleasant natural surroundings, celebrated Empire Day in the fashion that has become customary with this school.

Close to the station is a group of pines, and under these everyone assembled immediately after leaving the train. Mr. Williams, our headmaster, presided over the gathering, and, mounted for the nonce upon an outcropping stone, called upon Mr. Mann to say a few words on the subject of Empire.

Mr. Mann likened the Empire to a team, a team comprising many million players and including all races under the sun. Those in a football team, he said, must first learn to act in concert and abandon all selfish ideas. That is to say they must "pass the ball," and that is exactly what the members of the Empire must do. All must work for the common good. Mr. Mann illustrated his remarks by quoting the case of a certain football team in Asia Minor. This team included Turks, Armenians, a Greek, an Arab, and also a Copt, as well as a Negro from Africa. When the game commenced it was marvellous to see the various members having such national antipathies "pass the ball," and by their concerted action win the day. The inference, said Mr. Mann, amidst prolonged applause, was obvious.

Mr. Giltinan was then called upon, and, with simple force, did great justice to his theme. The Empire, he said, should appear to us not as a vast number of red patches on a map, but as a collective group of people. In all its members should be gratitude for the mighty inheritance that was theirs. This should express itself in a tangible form as service to the Empire, of which we were all members.

These sentiments were warmly applauded and then, after saluting the flag and singing the National Anthem, the gathering dispersed to enjoy the calm of the river and the other attractions on the green, where zealous devotees played football to the strains of music caught up by the school's multi-valve wireless set.

### AN INTERLUDE.

The three of us had sampled our host's hospitality, and were lazing in the warmth of the roaring log fire that provided the only light in the room. A winter's wind was howling and shrieking outside; the great thoroughbred collie that guarded the home was lying, head stretched, before the blaze; and the after feeling of a really good dinner induced a somnolence in all of us. The sense of complete contentment must have been strong in the usually silent Downer, for after leaning back in his chair a minute or two puffing contentedly at his rather disgraceful pipe, he leaned forward and broke the silence that exists only between old and trusty friends.

"That's a strange thing to have on the wall, old man, isn't it? It's started quite a train of thought in me."

We glanced up above the mantelpiece to a gaily coloured "motto-card."

"What Lamp had Destiny to guide

Her little children stumbling in the Dark?

And—'A blind understanding!' Heav'n replied."

"I, myself," continued Downer, "had that truth impressed on me in years gone by. Nothing great, perhaps, yet a bigger thing to me than the fate of a nation."

"Selfish beggar!" interrupted Atward, deliberately luring him on. "Get on with the yarn."

"Well," said Downer, "you chaps did not know me when I was a fellow in England, but I assure you that what I say is gospel. My college days were just about ending, when I received the lesson of my life. I was never much, scholastically, except that Chemistry was my one great subject—otherwise, I was merely commonplace. But I had such a love of Chemistry that in a home laboratory I had fitted up, I spent most of the spare time I had. Magical tricks, harmless dyes causing hens to lay red-shelled eggs, special foods to give colour to canaries, and so on. Now, some time or other, it occurred to me that as

the Eastern coolie can live on a handful of rice a day, providing it has not been stripped of its outer husk, a special virtue must reside in the husk. Reasoning from that, I collected a number of facts dealing with the *brain*; that, for example, the presence of red objects is helpful in working out mathematics, that seclusion is advantageous to study, that brandy and similar spirits quicken, if only momentarily, mentality. The effects of scenery, music and so forth, I also meditated on. I observed that these physical or natural objects had an effect on the mind, which too many of us confound with conscience, or the will; and I applied myself to finding a substance that would stimulate to an extraordinary extent the imaginative and memorising faculties. Drugs assisted me more than I care to admit."

He paused for breath, and I took the opportunity of drawing my chair closer to him.

Puff, puff, went his pipe. "By pursuing," he continued, "this line of thought to its logical conclusion, I quickly reached a remarkable result which, in its way, is unique to this day. I produced a white powder, a mixture, not even a compound. Now, when I made a warm tincture of this powder, I obtained a certain volatile liquid and, believe me or not, by simply inhaling the vapour for a few minutes, my mind became endowed with a wonderful clarity, and by merely glossing over various subjects I managed to retain an excellent knowledge of them. The benefit is apparent. By working moderately well at classes, I could by an eleventh hour perusal of the work gain more than sufficient knowledge and clear-headedness to win the highest marks."

I heard the excitable Atward beside me draw in his breath sharply. Then the hushed atmosphere was again broken by Downer.

"Naturally, I profited by this, and at the Matriculation had a record-breaking pass. I passed on to the Uni.—Cambridge—and there continued my startling career. Thanks to my 'well of inspiration,' the Mitchell Oxford and the Hamilton Wells Scholarships fell to me in the first year, and the second was due to begin. My fame was spreading throughout the University, and beyond."

He halted again; his face seemed drawn and stripped of its usual good humour, while his pipe lay cold in his hand.

"At first, the artificial stimulus to the brain was temporary, lasting at most twenty-four hours, but as time passed and its aid was employed frequently, its influence lasted longer and longer, till the brain was continually and superlatively clear. The most intricate calculations were amusements to me; 'parties and policies' I could examine impartially; science took an increasing hold of me. Yet, constantly, I felt the inconveniences of

an all too sharp mind—headaches were a worry for a time, but gradually disappeared. It was not the corporal inconveniences so much as the emotional. For I retained all my sympathy for human beings in distress, and the result was that I suffered and felt for the troubles of others in an accentuated form. For now I could reason out many a modifying circumstance behind a fellow-creature's hurt, and this new knowledge but made their burden the more pitiable to me. In my case, truly, 'to know all' was 'to pardon all.'

"Then, again, the conversations of friends appeared in their true colours as commonplace, and the crudeness of their humour became intolerable to my increased intellectuality; and it was borne upon me that to enjoy the company of everyday friends the super-brain were best eliminated. This conviction gradually grew on me till I began to consider experimenting to restore the former mediocrity of my mental powers. But the possibilities of a mistake were too awful. I had the brain of, say, a Newton, without any special objective to absorb its energy. The result is that I turned to study and seclusion to escape from myself. Naturally, perhaps, they were largely subjective. Subtle metaphysics and logical intricacies, self-interpretation, the final messages of art, and kindred subjects took possession of me. My brain was as cold and penetrative as a piece of Milanese steel."

There was some quality in his voice that made the great collie lift his head and gaze inquiringly at him.

"I well remember one day walking across what is probably the busiest thoroughfare in the neighbourhood, absorbed in reflections on a lecture on Locke's Philosophy, of which I had just taken leave. A harsh voice broke in on my meditations, and I looked up in time to see a car rushing upon me. I remember the look of horror on the driver's face as he pawed for the clutch.

"Too late! I attempted to move. A tremendous weight struck my side, shocking it into numbness. Then I knew no more.

"A week later, I came to in a public hospital, with a broken arm. My mind was also affected, for it had resumed the lowness of level of former days, for which I am duly thankful."

And, rising abruptly, he left the room.

UNCLE COCKROACH.

## SCHOOL DIRECTORY.

### THE STAFF.

*Headmaster:* J. A. Williams, B.A.

*Deputy-Headmaster:* J. W. Mann, B.A., Dip. Ed.

*Department of English:* J. W. Mann, B.A., Dip. Ed. (Master); S. G. Keys, B.A.; D. H. Berry, B.A.; W. D. Noakes, M.A.; A. M. Hall, B.A., Dip. Ed.

*Department of Mathematics:* R. Giltinan, B.A. (Master); P. McReady, B.A.; C. P. Schrader, M.A.; D. J. Austin, B.A.; F. V. Teasdale, B.A.

*Department of Science:* J. Back, B.A., B.Sc. (Syd.), B.Sc. (Oxon.), (Master); W. H. Edmunds, B.A.; A. V. Luke.

*Department of Modern Languages:* J. G. Belschner (Master), D. J. Sullivan, B.A.; D. Short, B.A.; W. J. Domaille.

*Department of Drawing:* F. W. Atkins, F.T.C.; J. Nickal, R.B.A.

*Department of Manual Work:* S. Coulson, Mech. Eng. (Lond.); A. S. Waterer, B.A., Dip. N.U.T., E.H.A. (City Guilds of London).

*Physical Training Instructor:* R. McCurley, Dip. A.P.C.S.

### *Directory of the Union.*

President: J. A. Williams, B.A.  
Vice-President: J. W. Mann, B.A., Dip. Ed.

Master in Charge of Journal: S. G. Keys, B.A.

Sports Master: C. P. Schrader, M.A.

Assistant Sports Master and Hon. Secretary: R. McCurley, Dip. A.P.C.S.

Honorary Treasurer: A. V. Luke.  
Members' Representatives: A. Young, W. Egan, C. Taylor, H. Ramsay, C. Tyson.

### *Library.*

Librarian (Reference Library): W. D. Noakes, M.A.

Assistant Librarians: G. Fraser, E. Riley.

Librarian (Lending Library): D. H. Berry, B.A.

Assistant Librarians: O. Smith, A. Long.

### *Debating Societies.*

Senior Debating Society—President: A. M. Hall, B.A., Dip. Ed. Hon. Secretary: G. Campey.

Junior Debating Society—President: S. G. Keys, B.A. Hon. Secretary: E. Weeding.

### *Officers of Journal.*

Patron: J. A. Williams, B.A.  
Master-in-Charge: S. G. Keys, B.A.

Editor: A. H. Young.

Sub-Editors: C. G. Taylor, G. Spence.

Business Manager: N. Cummings.  
Assistant Business Managers: E. Riley, G. Mould.

Teachers' Advisory Committee: D. H. Berry, B.A.; P. McReady, B.A.; J. Back, B.A., B.Sc.; J. G. Belschner; F. W. Atkins, F.T.C.; S. Coulson, Mech. Eng. (Lond.).

### *Tuck Shop.*

Manager: J. Back, B.A., B.Sc.  
Assistants: A. Jones, C. Graham, C. Tyson, O. Robards.

### *Radio Club.*

Secretary: F. V. Teasdale, B.A.

### *Prefects, 1925.*

A. H. Young (Senior Prefect), K. Salmon, C. Taylor, G. Campey, M. de Plater, E. Powys, W. Egan, H. Ramsay.

### *Class Representatives, 1925.*

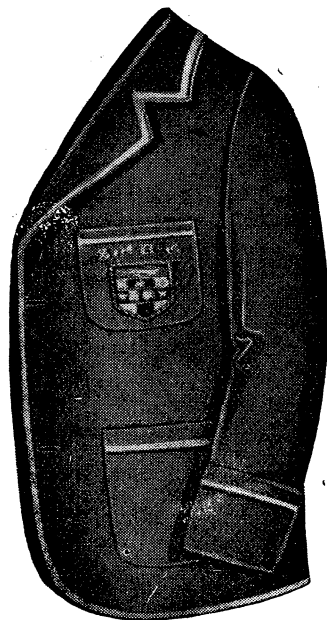
5A—A. Young, C. Taylor.  
5B—W. Weekes, N. Cummings.  
4A—G. Spence, E. Riley.  
4B—G. Edwards, R. Punter.  
3A—J. Brain, G. Laidlaw.  
3B—R. Parker, J. Patterson.  
3C—S. Johnson, H. Thomas.  
3D—E. Weeding, C. Hannah.  
2A—L. Cuff, E. Endicott.  
2B—F. Stead, J. Taplin.  
1A—J. Harrison, N. Bryson.  
1B—J. Coates, C. Daniel.  
1C—R. Vercoe, E. Oliver.  
1D—A. Richmond, E. Sanford.

# J. PEARSON

21 SYDNEY ARCADE

AND

114 KING STREET.



## BLAZERS

TO MEASURE

FROM

35/-

## HERE'S A WATCH

### FOR THE SCHOOLBOY!



This STRONG, SERVICEABLE, OPEN-FACED

**NICKEL WATCH**

fitted with LEVER MOVEMENT, is ideal for every day knock-about use.

Its TIME-KEEPING QUALITIES are excellent, and the value is extraordinary.

Price only 5/6.

With Luminous Dial 7/6.

## A WRISTLET WATCH

### FOR THE SCHOOLGIRL.

We can offer you an Excellent Timepiece for 21/-. Strong Nickel Case, with hinged back, and fitted with jewelled lever movement.

A thoroughly Reliable Time-recorder at a most reasonable price.

**GUARANTEED FOR 12 MONTHS.**

## ANGUS AND COOTE LTD.,

Sydney's Leading Jewellers, "on the White Way Block."

496 TO 502 GEORGE STREET SYDNEY.



# ANTHONY HORDERNS'

## For Service and Satisfaction

A STORE'S reputation is based on its Customers' satisfaction. Anthony Horderns' have an enviable reputation for giving satisfaction. It is a store you can depend on—a store that gives full value and quality for every shilling invested.

We pay Carriage on Fashion Goods, Family Drapery, Men's and Boys' Wear and Footwear in N.S.W. and to the nearest Port on Interstate Orders.

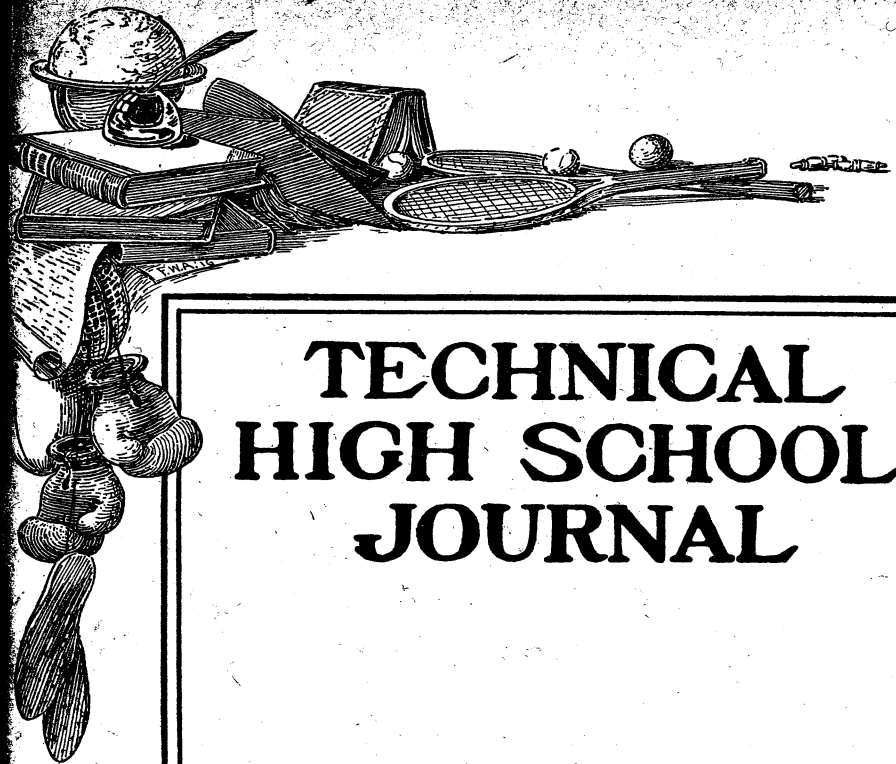
---

### Anthony Hordern & Sons, Limited

BRICKFIELD HILL,  
Telephone City 9440

SITUATED IN BLOCK 14,  
"Fair and Square."

SYDNEY  
Box 2712, G.P.O.



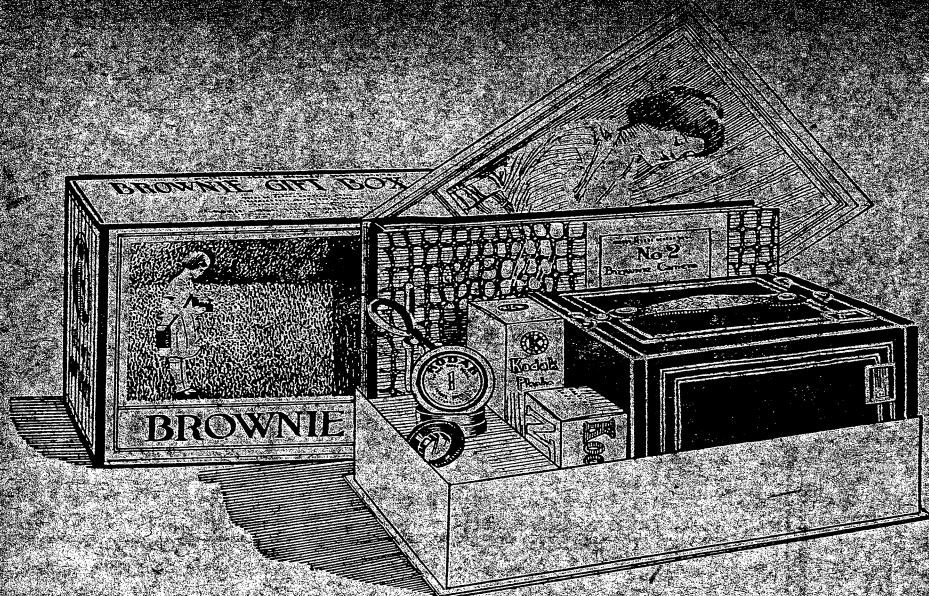
# TECHNICAL HIGH SCHOOL JOURNAL

Vol. X.

No. 2.

NOVEMBER, 1925.

F. W. WHITE, General Printer, 344 Kent St., Sydney



## The Gift for Youngsters **BROWNIE GIFT BOX**

**Complete with everything  
needed for picture-making**

Here it is—something for them to enjoy; a box of photographic equipment that enables splendid snapshots to be made from the very first.

The Box contains:—No. 2 Brownie (for pictures  $2\frac{1}{4} \times 3\frac{1}{4}$  inches); a roll of Kodak film; Portrait attachment for close-up pictures; 25-page loose leaf Kodak Album; Kodak Paste; fully detailed instruction Manual; finely illustrated Booklet, "At Home with the Kodak."

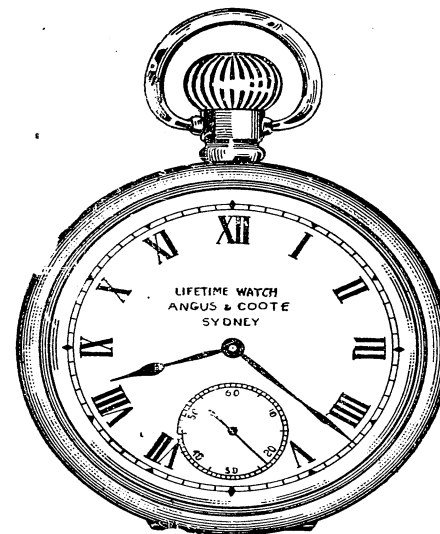
**PRICE COMPLETE 25/-**

Of all Kodak Dealers and

**KODAK (Australasia) PTY. LTD.**

379 George St. and 108 Market St., Sydney,  
and all States and N.Z.

To those who want **THE BEST**  
We recommend the "Lifetime" Watch



There's no timepiece on the market to compare with it for accuracy and durability, and *we keep it in order for the lifetime of the owner.*

The First Cost is absolutely the only Cost. Think what it means for lifelong Service such as the "LIFETIME" WATCH will give. It's the best Watch proposition we know of, and it stands alone

Gent's Silver "Lifetime" Open Face Model, £9/10/-

Gent's Silver "Lifetime" Hunting Model, £10/10/-

Obtainable also in gold presentation cases, and in gold wrist models. *Booklet illustrating all Styles sent Post Free.*

*Write for our big Watch and Jewellery Catalogue. Every Article Guaranteed, and money returned if purchase not satisfactory.*

**ANGUS AND COOTE LTD.,**

Sydney's Leading Jewellers, "on the White Way Block,"

**496 TO 502 GEORGE STREET SYDNEY.**

We are the best House in Town for  
School Badges, Medals and Trophies.  
Always consult us first.

# PALING'S STRINGED INSTRUMENTS

ARE FAMOUS FOR TONE



Banjos

You are certain of the best quality when you purchase from Paling's. The greatest care is exercised by experts in the selection of all instruments (particularly stringed instruments), everyone of which is the best your money can buy at the price.

For Tone, Appearance, Workmanship and Value

**PALING'S  
STRINGED  
INSTRUMENTS**

defy comparison.

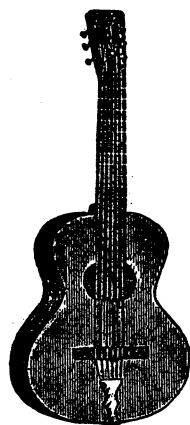
Call in and inspect our varied display at your earliest convenience.

Catalogue and Price Lists free for the asking.

*Paling's*

"Quality Our Keynote Since 1853."

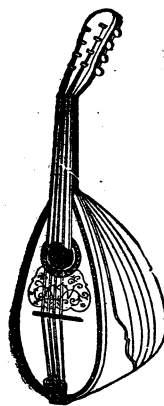
338 GEORGE STREET,  
SYDNEY.



Guitars



Violins



Mandolins



## The Technical High School Journal

VOL. X.

NOVEMBER 1925

No 2

### Journal Officials:

Patron: J. A. Williams, B.A.

Editor: A. H. Young. Sub-Editors: C. G. Taylor, G. Spence.

Sports Editor: C. P. Schrader, M.A.

Business Manager: N. Cummings. Asst. Business Managers: G. Mould and E. Riley.

Teachers' Advisory Committee: Messrs. D. H. Berry, B.A.; J. Back, B.A., B.Sc. (Syd.), B.Sc. (Oxon); P. McReady, B.A.; J. G. Belschner; F. W. Atkins, F. T. C., and S. Coulson, Mech. Eng. (Lond.).

Teacher-in-Charge of Journal: S. G. Keys, B.A.

### Class Representatives, 1925

- |                             |                             |
|-----------------------------|-----------------------------|
| 5A—A. H. Young, C. Taylor.  | 3D—E. Weeding, C. Hannah.   |
| 5B—W. Weekes, N. Cummings.  | 2A—L. Cuff, E. Endicott.    |
| 4A—G. Spence, E. Riley.     | 2B—F. Stead, J. Taplin.     |
| 4B—G. Edwards, R. Punter.   | 1A—J. Harrison, N. Bryson.  |
| 3A—J. Brain, G. Laidlaw.    | 1B—J. Coates, C. Daniel.    |
| 3B—R. Parker, J. Patterson. | 1C—R. Vercoe, E. Oliver.    |
| 3C—S. Johnson, H. Thomas.   | 1D—A. Richmond, E. Sanford. |



**EDITORIAL  
INK**

As predicted in an earlier issue, this year has been exceptional for the measure of success attendant upon the School, and present indications seem to justify expectations that the results of the coming public examinations will reveal that further laurels have descended upon Technical High School students.

Much of this is doubtless due to the keenness and natural ability of the boys themselves, but the change of position and consequent quickening of interest has had a great influence. A patent example may be had by reference to the winter competitions. This year three teams reached premiership honours, and the others were always in the picture threatening to wrest away the titles.

Our performances in Combined High Athletics were not meritorious except in one or two isolated instances, but the number who attended and the enthusiasm displayed were highly commendable. Indeed, in every sphere of activity the School spirit, that "esprit de corps," has been pulsating and vigorous, showing that the School is alive.

Now, many of you are doubtless aware that the motto emblazoned on our badge was adopted from William of Wykeham, a celebrated scholar who flourished in the fourteenth century, and who founded at Winchester the first Great Public School in England. A few months past the late headmaster of Winchester School was lecturing in Sydney upon the English public school system, and he gave many interesting details about William of Wykeham and his motto. Possibly the gentleman never knew that in Sydney there was a school with the same device and carrying on the same traditions.

But that is beside the point. Our main interest is that we have that motto and that we, in conjunction with the other high schools, hold an important place among the great public schools of New South Wales. Upon such schools as ours the State is increasingly relying to turn out people with worthy ideals. Now is the time for patriots—not just flag-flappers—but workers developing natural resources and men of action. Those that run around crying confusion are generally the ones with no position or influence in the community. They are drones.

### THE LIFTING OF THE MIST.

(Or the Dark Side of Sunny New South Wales.)

Oh, dark the dawn, and dull the day, one cheerless Christmas Eve,  
When to the look-out we all went to watch the mists upheave;  
Assured it was a beauteous sight, did all of us enlist  
To go and see the glories of the lifting of the mist.

Down at the look-out all around was dirty, dirty grey;  
And was it for a drenching that we'd walked that weary way?  
Below, above, behind, before, we scarce could see a fist,  
Yet we were told we soon should see the lifting of the mist.

No breath or breeze: yet through the trees we saw the vapours drift,

And I began to wonder, was it time we'd better shift?

E'en as I turned to go, a voice fell on my sore ears—hist!

"Wait for a while, and we shall see the lifting of the mist."

We waited, and we waited; but the sight was still not yet;  
The ground, the seats, the leaves and WE were very, very wet;  
Maybe the rope was broken, or had somehow got a twist,  
For still we only hoped to see the lifting of the mist.

We waited while the Summer morn was changed to Wintry noon,  
And, "Surely," we were thinking, "will the white mists come up soon."

We saw the mount by clouds embraced, the trees by dew-drops kissed,

And waited, sad and silent, for the lifting of the mist.

At length we rose and came away; the rain was pouring down.  
Our hopes—our cherished, fondest, dearest hopes at last were flown.

Of ups and downs—but chiefly downs—experience consists:  
We might be waiting still to see the lifting of the mists.

L.R.S.

### SCHOOL NOTES.

The numbers this year for the Public Examinations are well up to the average. Forty-four are attempting the Leaving Certificate, while one hundred and twenty candidates are endeavouring to cross the Intermediate hurdle. The comfortable, well-ventilated and quiet rooms used this year should prove a boon to the lads concerned. For these tests conditions should be as nearly ideal as possible, and the T.H.S. students are particularly fortunate in this regard. We wish them all the best of success.

\* \* \* \*

In this issue is published a cross-word puzzle. Some boys have become quite expert at solving these, and there is quite a "Techite" flavour about this original effort. A small prize will be awarded the sender of the first correct solution opened after December 11th, the closing date for receipt of entries. These should be addressed to The Editor, *S.T.H.S. Journal*.

\* \* \* \*

By the courtesy of our old friend and patron, Mr. J. Nangle, O.B.E., F.R.A.S., Superintendent of Technical Education, and the Staff of the Technical College, about fifty of our Fourth



Year lads have been given the opportunity of qualifying for the Diploma Classes at the Entrance Examination beginning on 25th November. We have every confidence in the creditable showing of our candidates.

\* \* \* \*

Our hopes for six new class rooms have not yet been realised. The premises are a very tight fit, and we are eagerly looking forward to the day when our accommodation needs will be supplied. May it come soon.

\* \* \* \*

We note with interest and pleasure the progress of old T.H.S. teachers. Mr. W. L. Hammond, B.Sc., the School's first Science Master, has been transferred to Bathurst; Mr. L. E. Penman, B.A., formerly of the English Staff, is now at Goulburn High; while Mr. G. A. Cantello, B.A., has been promoted to Inspectorial rank, and is now in charge of the schools in the Narrabri District. We offer congratulations to these old friends.

\* \* \* \*

The School owes much to the 1925 prefects. For exemplary conduct, excellence of character, and willingness to assist the masters in every possible way, they have been outstanding figures of the School life, and have exercised an influence for good which has been felt throughout the School.

\* \* \* \*

Mr. W. J. Domaille, B.A., of the Modern Language Staff, has been compelled, through a breakdown in health, to take a spell away from duty. Capable and energetic, very interested in his class-work, and thoroughly conscientious in the discharge of every duty as a teacher, he has not spared himself. We desire to express our appreciation of his services to the School, and a sincere wish for his speedy recovery to sound health.

\* \* \* \*

The Turner Prizeman for 1925 is the Senior Prefect, Albert Howard Young. We congratulate him on his election by the Staff and senior boys for this, the School's highest honour. For faithful and unselfish service, for tactful handling of difficult situations, for the constant exhibition of true sportsmanship, and, above all, for manly character, our 1925 Turner Prizeman is, we believe, fully worthy to take his place among his predecessors.

\* \* \* \*

The School is grateful to the parents and friends who responded so liberally to the appeal for funds to provide prizes and to meet necessary expenses in connection with the Annual Athletic and Swimming Carnivals. Nearly £70 was collected, in addition to special prizes promised or actually donated.

Mr. M. B. Welch, B.Sc., Chief Botanist of the Technological Museum, has again rendered the School valuable service in two interesting and useful lectures to the lads of the Intermediate classes. "The Timber Trees of Australia: Milling and Transport" was the main subject of the first lecture, Mr. Welch including in his discussion a review of the re-afforestation schemes in practice in various parts of the world. The second lecture dealt with the "Structure, Properties and Uses of Australian Timber." The attractive presentation of his topics by the lecturer, and the use of illustrative slides and diagrams made Wood-work even more popular than it usually is.

\* \* \* \*

The Athletic Carnival this year was a great success. There were many entrants, and the day showed what a fine lot of all-round athletes the School possesses. At the Combined High Schools' Carnival our representatives worthily upheld the traditions of the School. A pleasing feature of the latter function was the excellent roll-up of T.H.S. supporters.

\* \* \* \*

The officials of the *Journal* desire to express their appreciation of the numerous contributions sent in for this issue. Many lads, although very busy with examination work, yet found time to assist in this important feature of School life. A brace of Old Boys, too, L. R. Saxby and W. Cameron, deserve special mention for their constant interest and regular literary efforts for the *Journal*.

\* \* \* \*

The class rooms and the building as a whole sadly need a general clean-up, but much in the way of renovation has been accomplished by many willing workers under the direction of the Staff. Messrs. Luke, Atkins, Teasdale, Waterer and Coulson have been very prominent in this regard.

\* \* \* \*

The Tuck Shop still traverses its merry and profitable way. Where would we be without it? In how many and various ways is the School helped by it? Are we sufficiently grateful to the lads who sacrifice their time and effort in managing this institution? Messrs. Tyson, Graham, Christian, Robards, Stewart and Jones have given very good service this year as retailers of school commodities, and we are under a great obligation to them.

\* \* \* \*

The School extends its deepest sympathy to Messrs. Giltinan, McReady, Atkins and Mann in their recent sad bereavements.



## THE BORROWER.

To be quite frank, I will tell you at once that I detest borrowers. They are a nuisance to themselves and a menace to the comfort of all unfortunates who manage to come within reach of their ever grasping maw. None are immune from their insidious advances save those of their own tribe. Dog does not eat dog, but together they fall upon and plunder the tender lamb, such as you and I, O gentle reader.

Just recently I spent several days in an examination room. The experience was awful. No, I am not referring to the examination itself, for it is the custom, and the world expects it of you to say that the papers were "rotten"; that you knew nothing, and could only do a few questions. That is why examinations are held. The purpose of the inquisitors is to scare the shrinking candidate into betraying his real knowledge of a subject. The policy then is to go and dally with the paper, to feign you do not comprehend it, and then to go away leaving the disappointed examiner in grave doubt as to how much you really do know about the particular "-ism" or "-ic" in which he is so interested. Some incautious individuals have been flurried into sending in papers of a high standard. This is bad form and is in opposition to the great principle of unionism. Always remain an untapped, potential store of energy.

But let us get back to our sheep, even though they be black. The real horror of that trying time was provided by the pest who borrowed everything which his imagination could conceive to be of use. The tragedy is only relieved by the way in which the pirate sets about obtaining the loot. With a grace that would bring distinction to a Genoese courtier, hear him make an appeal to the master-in-charge: "May I borrow a pin?" The teacher is a kindly soul and instantaneously bestows his benediction upon the undertaking. Lo and behold, the victim must perforce stand and deliver to one armed with such regal power to take what he may.

Hark at him requesting the loan of ink to fill his pen for a fresh day's work. The dictionary says that to borrow is to obtain the loan of for a time. These fellows regard time as the limit, and no doubt at the crack of doom will be found returning a trifle or two—certainly not before. In quick succession they take toll of your paper, pins, graph paper, logarithmic tables, and your ruler. But here comes the rub. Just at a critical moment you must yourself arise and be made the cynosure of all eyes by asking for the loan of your own pair of compasses.

No doubt some of them would borrow your brains but that their impetuosity is tempered by the impudent reflection that you probably know less than they do.

All the world, Medes, Persians, Elamites and Parthians, can be divided into two great classes: those who borrow, and those who fall unwilling victims to their atrocious demands. It is estimated that the former have taken tithes from one-tenth of the entire population of this globe!

A.H.Y.

## CORIOLANUS.

Of figure tragical! Thy name's immortalis'd  
By Avon's bard, divine. Who honour so much priz'd,  
Yet condescended not to take reward, as thou?  
Whose pride so great as thine? Yet could'st thou disavow  
Affection for thy kindred? No, thou lovedst thy friend.  
Thy fellows—lovedst thou them? Nay, them didst thou offend.  
Would Christ had lived then, and thou hadst known His love!  
Thy name, Coriolane, would far greater prove.  
Then wouldst thou've understood that, greater far than war—  
For therein revell'dst thou, in scorning fear of gore—  
Is human brotherhood, and love toward all men!  
Betray thy State?—that couldst thou never have done, then.  
Ah, never man did wrong himself so bitterly,  
A man so wond'rous great, as thou, O brave Marci!

G. R. EDWARDS, 4B.

## SKELETON ARTICULATION.

The method of skeleton articulation employed at the Museum is as follows—:

The specimen when brought in is carefully skinned, and as much of the flesh as possible cut from the bones. The bones are then macerated; that is, they are placed in a zinc or porcelain bowl and allowed to remain, covered with water, until the remaining flesh decays. In the case of a large skeleton the water is changed every second day.

The bones are then placed in water and heated. As soon as the water boils, potassium carbonate is placed in it in the proportion of one tablespoonful per gallon. The boiling goes on for about half an hour, by which time the sinews and cartilage have usually softened enough to be removed. The flesh is then either brushed off with a stiff nail brush or cut away with a knife. It is then allowed to dry in the shade.

If the skeleton is not white enough, usually because age has rendered the blood in the bone hard and, therefore, difficult to extract, it is placed in more water with about a spoonful of chlorate of lime per pint.

When the bones are thoroughly dry, the skeleton is rebuilt. This is done by placing the pelvis bone in position, and building the vertebrae and ribs upwards from it.

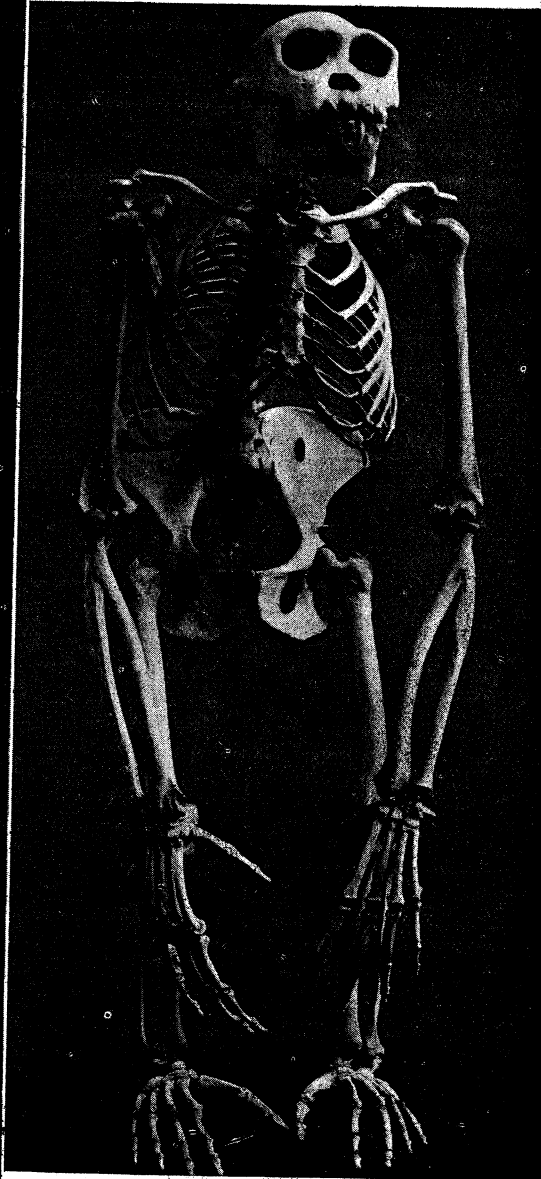
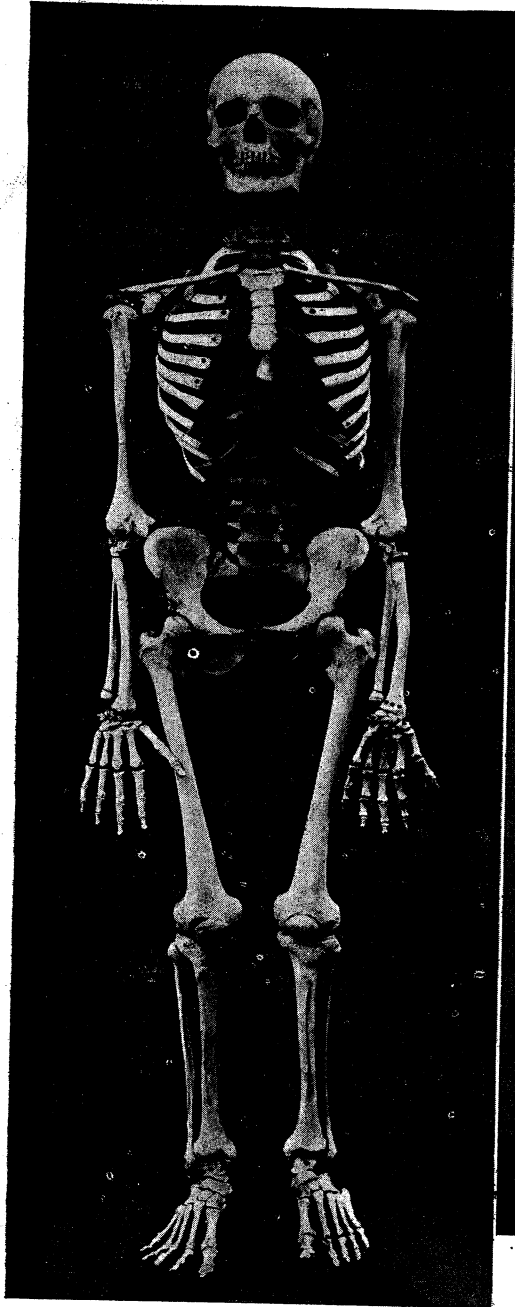
The cartilage, the sinews connecting the ribs, is rebuilt of putty, and the tail and skull are placed in position.

Practically all the mounting is effected by running steel wire through the bones. This is done in such a way that the casual observer notices only very slight traces of anything unusual in the mounting.

Having fixed the head and tail, the skeleton is then hung in the position that it will occupy when completed. This enables the legs to be fixed in a suitable position.

HUMAN SKELETON.

GORILLA SKELETON.



Skeleton articulation, although very little known, is a very interesting hobby. As, however, an intimate knowledge of anatomy is necessary for the success of a figure, it is beyond the reach of the average person and is, therefore, very little practised.

For the obtaining of the notes for this article I am greatly indebted to the Trustees of the Australian Museum, and particularly to Messrs. W. T. Wells, A.I.A.V., Curator, and G. C. Cutton, Skeleton Articulator and Photographer.

G. SPENCE, 4A.

## THE CITY OF BABYLON.

The city of Babylon was for a very long time the most famous city in the ancient world. It has been said that its walls appear rather as a work of nature than of man, so great are their dimensions. The city itself was situated on the banks of the Euphrates, which is of considerable width at that particular spot. The river ran through the middle of the city, whose two portions were joined with a massive masonry bridge strongly connected together with iron and lead.

Embankments, which prevented inroads of the river, were constructed of the same durable material as the huge walls. Herodotus says that the shape of the city was a perfect square, the perimeter of which exceeded 60 miles. Thus it must have been nearly eight times the size of London! The city was entered through a hundred huge brass gates, and its streets ran parallel to each other and were crossed by others at frequent intervals.

The city was protected at regular intervals by watchtowers and a deep trench or moat outside the walls. This was excavated and the material formed into bricks of a fairly durable nature which were cemented together with hot bitumen mixed with straw and reeds. The great walls were also constructed of this material.

There were a great many buildings within the city. Most of the private dwelling-houses approached even three or four stories high. In selected positions in the most important divisions of the city huge monuments were erected. In one such position stood the temple of Belus. This consisted of a huge square building covering approximately 40 acres. On top of this was a succession of lofty towers, eight in number, surmounted by a huge bronze statue of Belus or Nimrod, 40 feet in height.

The palace, which also served as a temple, stood on an area of one and a quarter square miles and was surrounded by circular walls decorated by pictures of animals painted in their natural colours and burnt in.

In several places coffins, sometimes made of wood (in one case mulberry wood), and sometimes merely earthenware jars, have been discovered containing human skeletons in excellent preservation. These skeletons, however, crumbled to dust on exposure to the atmosphere.

R. LAING, 4B.

## THE ROCK.

The sun had set—the black rocks damp  
With flying spray, stood out alone  
Against the moon, a silhouette  
Of grandeur crowned by the lamp,  
Which gleamed from yonder lighthouse top,  
To warn all ships of dangerous rocks.

C.B., 2A.

## SIMPLE BOOK BINDING.

To bind magazines or other periodicals into a book is often desirable in order to prevent them from becoming more like a disorderly heap of waste paper than useful reading matter. To many, binding a book may appear to be a formidable task, but it is one of the easiest. No great skill or patience is required, but merely a little care and neatness. The first essential is a sewing frame, which the diagram 1. will sufficiently explain. It consists of a baseboard of some light wood, such as pine,

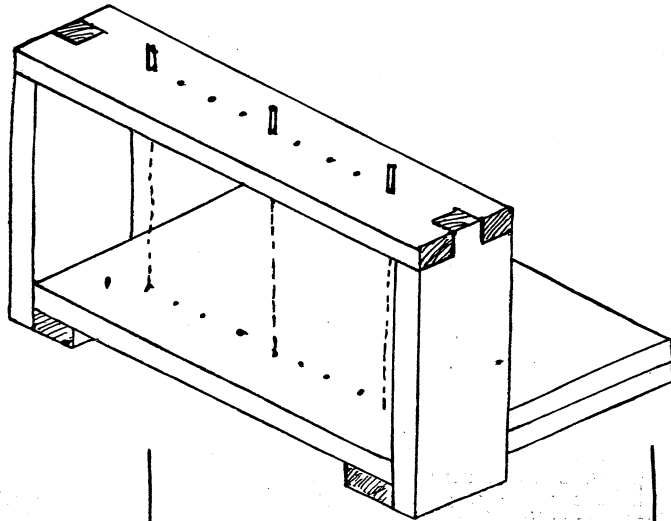


Fig. 1.  
Sewing Frame.

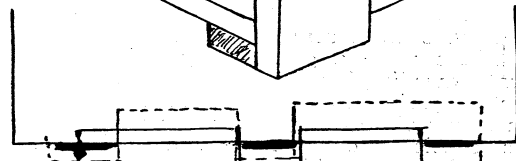


Fig. 2.  
Diagram explaining mode of sewing.

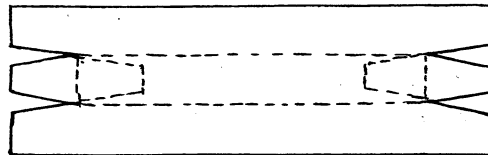


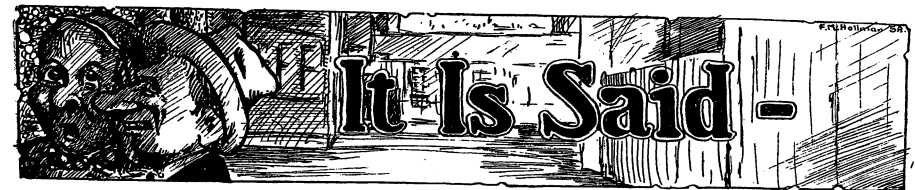
Fig. 3.  
Back for Volume.

about  $\frac{3}{4}$  of an inch in thickness. It should measure 12 inches in length and 9 inches from back to front. A cleat  $1\frac{1}{2}$  in. x  $\frac{3}{4}$  in. will strengthen the board and cause it to stand more firmly on the table. Next fit two upright pieces 9 in. x 3 in. x  $\frac{3}{4}$  in. A cross-piece must now be added at the top. A number of holes must be bored in the baseboard about 2 in. apart, and a corresponding number of holes in the cross-piece at the top. Six pegs will be required to hold the tapes, as shown in the diagram. The sewing frame being complete, the magazines should be taken to

pieces by removing the wire staple which holds the leaves together. The covers may be dispensed with and also the advertising matter, unless it is desired to retain these pages. will be required to form the fly leaves. Place these on the baseboard

To commence with, two leaves (those with advertisements on will do) against the tapes, which are held in position by the pegs. Three tapes will be sufficient for most magazines. Make a knot on one end of the thread and pass the needle through the tape and through the leaves, coming out again so that the thread passes behind the tape each time. For the next stitch take the last issue of the magazine which it is desired to bind, lay it right way up on top of the fly-leaves, and repeat the stitch. Repeat this process till all are sewn together, and sew another fly-leaf on top of the whole. Then clamp the whole down tightly and glue a piece of muslin which has been cut to the exact size of the back, where the tapes are, and leave overnight to dry. The next step is to cut two pieces of cardboard the correct size to form the cover. The tapes, which have been left about 3 in. long each side, are glued to this to form a kind of hinge. Next make the back of blind holland with a stiffening of stout paper glued inside. The centre flaps are turned in and glued down, as shown by the dotted lines. This must be allowed to dry under pressure of a weight. It is then glued to the back of the book, and the narrow flaps glued to the cover, which may be covered in plain or coloured paper, and the title pasted on. The title may be cut from one of the discarded paper covers.

A. SUTTON, 3B.



That Fifth Year were so noisy in debates that they had to be separated from the Fourth Year.

\* \* \* \*

That the Tuck Shop will do a roaring trade now that ice cream is available again.

\* \* \* \*

That although First Grade Cricket is an improvement on past years, yet it will not show out as well as First Grade League Football.

\* \* \* \*

That everyone in Fourth Year is going to pass the Technical College Diploma Course Entrance Examination at the end of the year.

That the School Sports went off exceptionally well this year.

\* \* \* \*

That we have some very skilful ping-pong enthusiasts who daily exercise themselves in the Basement. What about a match—Staff v. School?

\* \* \* \*

That old tennis balls can be obtained cheaply by one section of Third Year, judging by the collection some of the teachers and prefects have made.

\* \* \* \*

That too many boys leave the School grounds at luncheon recess. Why not give your patronage to home industries?

\* \* \* \*

That our football teams in both codes did much better than they have done for some years.

\* \* \* \*

That it was a very pleasant surprise to see such a crowd of "Techites" at the C.H.S. Carnival, and to find that the majority of them knew the war cry. (If this spirit is maintained, we'll soon have something to shout about.)

\* \* \* \*

That it is hoped as many will turn up at the C.H.S. Swimming Carnival as at the Athletic Meeting.

\* \* \* \*

That the half-dozen class-rooms we need so badly will not be finished by the end of the year.

\* \* \* \*

That after close scrutiny a Tech. High boy was discovered camouflaged in "Oxford bags."

\* \* \* \*

That Quadrangle, though not quite so popular as earlier in the year, still has many regular patrons.

\* \* \* \*

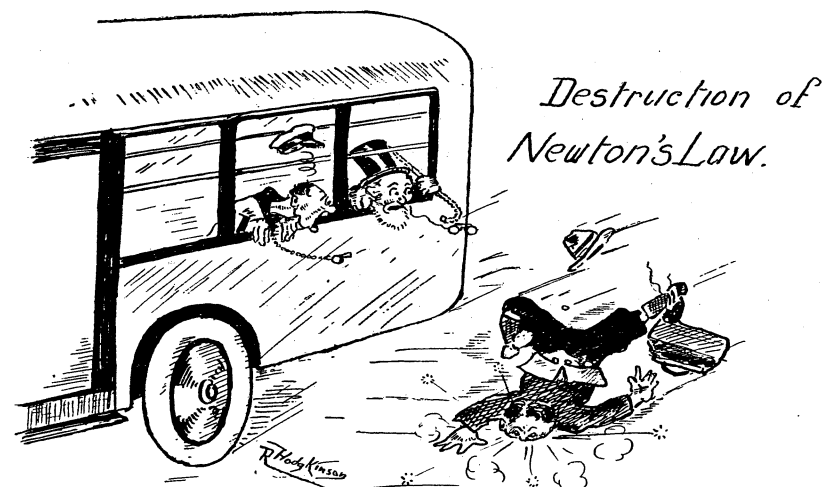
That there are bright prospects in store for two or three of the L.C. boys, who are expected to add to the School's reputation.

\* \* \* \*

That the "late-book" is being used now by only a small number of habituals.

\* \* \* \*

That members of the First League were rather disappointed at missing the usual trip to Wollongong, especially after hearing of the extra programme enjoyed by the soccer players who did go. Who wants to go next year?



— "INERTIA" — *inability of a body in motion to stop suddenly???* —

### RAISING THE WIND.

The average schoolboy is notorious for his continuous impecuniosity, and it is remarkable to what lengths of brain-searching some youths will go in order to find a means of turning a few honest coppers.

Take, for instance, the bright and intelligent youth whose taste for literature was, if not extensive, somewhat peculiar, and which leaned not towards the classics but rather to the reverse. Hardly a day went by without his having some different book protruding from his pocket, rejoicing in the name of the "Gem," the "Magnet," the "Boys' Friend," or some equally alluring title. This ingenious person struck upon the plan of supplementing his pocket-money by selling the aforementioned "bloods" at the rate of three for a penny, after he had read them.

Another misguided youth was presented with a camera by a doting relation. His misplaced genius led him into using the gift as a means of making money. He started by taking snaps of his school colleagues, either individually or in groups, and used to sell prints of these at a penny unmounted, or twopence mounted.

The novelty of this dying down, he was forced to boost his idea, or go into liquidation. Being a persevering lad, he was disinclined to give up his source of revenue, and looked

round for fresh fields to conquer. He was smitten with the inspiration of snapping the masters and selling their portraits through the school.

At first he was content to take the masters when they were literally almost "watching for the dickybird," but, as your Aunt (sweet soul!) would say, in one of those enlightening moments so familiar to most of us, "boys will be boys," and this youth pursued his art a step further, and did not always wait for his subjects to "smile and look their best." Indeed, though I am loth to say it, this monster took delight in snapping his unfortunate victims when, to use a colloquial expression, "they had their wool off," providing of course that masters are ever seen in that doubtful state. This required some skilful manoeuvring, but Sir Galahad was not more zealous in the quest of the Holy Grail than our hero (doubtful) in his mission, but nothing succeeds like success, and I can state with absolute authenticity that the scheme was a financial success, so much so, in fact, that orders were booked far in advance and were treated in strict rotation.

Who can say that the future does not hold in store for this enterprising youth the exciting career of snapping big game in the heart of Africa?

These are only two instances, and it is out of consideration to the reader that I desist, but I think the commercially-minded young fellow who cut Y-shaped twigs from suitable bushes for use as catapult prongs, and fitted the same with elastic (for a consideration), is entitled to be mentioned. And to show how one business relies on another, the case of the boy who employed his spare time in making paper pellets out of old exercise books for the use of the purchasers of the above forbidden articles, is surely worth recording.

Perchance these boys are embryo financial magnates—or budding Bottomley's.

N.W.N., 4A.

## THE BERTH OF A LINER.

Have you ever thought, when you stood on a ferry steamer admiring one of the large mail steamers lying at the wharf, of the amount of labour it took to work out all the many details connected with the building of an ocean liner? The first step is taken when the shipping company decides to build another new vessel for one of its routes. Here we encounter the first problem. For while all big steamers may seem very much alike to the casual observer, it is a fact that practically every large steamer is designed for a special trade or service, and different trades require special features, which have to be considered when building a new vessel.

The owners first call in their designing staff to draw out preliminary plans for a ship to carry a certain number of passengers—perhaps first, second and third class—providing for the number and sizes of one berth, two berths, three and four berth cabins, and the various public rooms. Sometimes a certain amount of refrigerating space is required for cargo.

Then it has to be considered what speed the vessel is required to do, and its steaming radius—that is, the distance it will have to travel between fuel depots.

Next, they consider the class of propelling machinery to be installed; whether she will have steam turbines or reciprocating engines; whether she will be fired with coal or have oil fuel, or possibly, as in some of the latest liners, be provided with large Diesel engines.

Here I should state that practically all vessels of importance are built to the rules of one of the societies for the classification and registration of shipping. The principal societies are Lloyds, of British Corporation, in Britain, and the Bureau Veritas, in Europe.

Having arrived at the various principal features required in the proposed vessel, the next step is to call for tenders from the various ship-building firms, who generally submit preliminary designs with their quotations.

These are considered, and possibly altered and modified, till the approved designs are agreed upon and the tenders are accepted, stipulating under the rules of which classification Society the ship is to be constructed.

Now the real task for the builders begins. The original draft designs have to be elaborated and all the many details of capacities of holds, tanks, bunkers, machinery space, crew's quarters, passenger accommodation, navigation bridges, decks, etc., have to be worked out to accord with the many regulations of the Board of Trade, requirements of climatic conditions, and rules of different countries with which the vessel is intended to trade. When these items are settled the designers have to elaborate the details of the hull construction.

The details of the machinery have to be worked out in a similar way; these also require much calculation and figuring. At the outset the amount of power necessary to drive the ship at the required speed has to be determined. Some shipbuilders rely on their previous experience and data which they have collected from earlier vessels, but the principal shipbuilders have what they call experimental tanks; these are equipped with delicate instruments, and a wax model of the proposed hull is made exactly to scale. The model is drawn through the water, the instruments recording the speed and power used. From this the actual horse-power required in the steamer is definitely determined.

When all the details are arranged and working plans are complete, they are sent to the various workshops. The shipyard start by drawing out all different frames on the moulding loft floor to actual full size. From them the wooden moulds are made which are sent to the plate-shop, where the smith bends the heavy steel frames into the required sweeps and bends. The parts are then riveted together to form the ship's frame.

Meantime the berth has been prepared where the ship is to be built. This must be on a sloping site close to the water, so that the ship can be launched when the hull is complete. The keel blocks are laid down; these are short, heavy baulks of timber built up about four feet high, and about four feet apart. On these the keel plates are laid and carefully lined up in order to make the bottom of the ship perfectly straight. On the keel plates are erected the frames. These are supported in position and "faired" up on each side by long pieces of heavy timber, so that all the frames must be true and fair. The bulkheads, stem frame and stern frame are next erected in position. Then the large steel plates are prepared and riveted



on to the frames to form the bottom and sides. Large gantry cranes, which travel up and down each side of the berth, lift the heavy plates and beams into position. Next the deck beams are fitted, then the steel deck, then the steel deck houses, bridges, hatches, railings, etc., are erected. All the time this is going on testers are testing the construction, and any faulty work has to be made good. The engines and boilers are meanwhile being constructed in the boiler shop. As a rule the small machinery is made by firms which specialise in the manufacture of certain pieces of machinery. Before the ship is launched the engineers have to fit the tubes in the stern frames which carry the shaft for the propellers. This requires very careful setting up, that the heavy shaft will be exactly in line with the main engine.

Probably you have noticed the large flow of water coming out of a hole in the side of a steamer. That does not mean that the vessel is full of water and likely to sink. It is only the water coming from the condensers. It comes in through large valves in the ship's bottom and, passing through the pumps and condensers, flows out through a hole in the side of the ship. All these holes are cut in the ship's side before she is launched, and large valves are bolted on so that the water can be shut off when necessary.

As a rule, the ship is launched when the hull is complete. As soon as the vessel is afloat, tugs take her to the fitting-out wharf, where large cranes lift in the engines, boilers, masts, funnels, etc. When these are in place, the decks are built over the machinery spaces, and soon the work of laying wood decks and finishing off begins.

### THE SEA-DOGS.

In the days of Good Queen Bess  
The English seamen bold  
Sailed forth o'er waters unexplored  
To seek for Spanish gold.

An English captain brave and bold,  
Sir Walter Raleigh, he  
With laughing eyes and buoyant air,  
Looked proudly out to sea.

The English captain made a speech,  
His crew all standing round;  
They cheered as only British can—  
It was a pleasant sound.

They sailed away from England's shore  
To beat the Spaniards bold;  
The fight they won, and thought the cost  
As nothing—in those days of old.

F.A., 3D.



### 5A.—

The time is fast approaching when the renowned band of intellectuals gathered together in this year's 5A will be broken up and scattered beyond all recall to the four winds of heaven. The dissolution of Arthur's Round Table will be as nothing compared with this mighty upheaval. For many months this fellowship have been striving together in the quest which is so soon to terminate. That our results in the coming public examinations will be distinguished no one can doubt. Our main concern now is how many will share in the glory. This sounds like tallying up the loot before boarding the vessel, but, given a mere foothold, we are sure to carry the day. Indeed, some members utter doleful complaints that authority will not permit a candidate to take more than ten papers, and Alexander-like they sigh for fresh worlds to conquer.

Our sojourn at the Tech. has been a jolly one, and fraught with golden incidents that will serve as a mental treasury for later days. This year we have taken part in the establishment of a new order, that is, the settling down, incident to a change of habitation. Much creative work has been and will continue to be done, but a state of cosmos is still far removed. Accommodation is insufficient, and who can say but that the Tech. will in the near future be clamouring for, and obtaining, fresh expansion.

As a general-good-all-round class we bear away the palm. Some are noted for athletic prowess, and others are famed for studious habits, but our greatest triumph is in the number who are prominent in both branches and share in all School activities. Their names are too numerous to mention in detail, but they are all meritorious.

In football and cricket we have about a score or so of representatives, including captains of victorious teams, State Champions, and Combined High representatives. In December a bold bid will be made for aquatic supremacy. Our runners made a satisfactory showing in the annual sports, but in the Combined High were outclassed.

Our School work has been filled with many vicissitudes, and consequently has been extremely interesting. To begin with, there was that change in the drawing curriculum. As though such a subject was not already replete with sufficient detail! But that is fate.

Then the study of Coriolanus whilst the present industrial turmoil rages has been unique. How would he have fared to-day? Possibly his primitive methods would have succeeded where ours, more complex, fail. Qui sait.

French and German have been—well, just subjects to learn, although several members found outside distinction. A foreign tongue and history are fascinating—if one has not to do them for an examination.

Mathematics have—well, these subjects are laws unto themselves. They deal with the quadratics, the inverse notation, and the multiplicity of angles measured on the round instead of in the usual way. Also, one can learn to equilibrate moving forces, to differentiate integrations, and to draw common tangents to hyperbolas and ellipses. At least an honours maths. chap MAY be able to do some of the above, whilst the mere pass individual grubs amongst dingy permutations and toys with Ptolemy's Theorem.

Physics and Chemistry are very interesting subjects, and take up quite a deal of time, which will be of later benefit. The handful of chemists enjoy the unique distinction of being able to annoy the whole School with a minimum of discomfort to themselves. It is all due to a chimney and a gas generator.

But, no matter what the subject, the various teachers have shown untiring devotion to our needs, and to these gentlemen we tender our sincere thanks.

We have learnt that Shakespeare is a quarry, where each may dig for himself and shape stones to his heart's content. The question which agitates our mind is—How does the examiner like his stones dressed? Does he favour picked or chiselled blocks, or will he require them rock-faced as broken from the quarry?

We have been hearing much of Shakespeare's characters—of their universal application—how we can possibly see ourselves reflected in them—particularly their pettiness—perhaps a little of their nobleness—but most certainly a great deal of that striving after unattainable objects. What a grim jest on the eve of the Leaving Examination!

5B.—

Stumps are now on the point of being drawn, for we have all but completed our "dig," and will be bidding farewell to The Technical High School, within whose portals we have spent so many happy days. Although we often say to the contrary, many of us will find it exceedingly difficult to forget the "Tech." and the friendships there formed. We now begin to realise that, after all, our school-days are the best. Yes, we have passed, despite our youth, through some of the most momentous days in the history of the land of sunshine and prosperity, and they have directly left their stamp upon us.

We have been getting into mathematical deep water lately, as our last exam. results show. Truth to tell, there is a very strong mathematical undertow in Fifth Year Maths. I.

Now, turning towards the sporting side of our activities. First League and First Soccer won their competitions, and as both teams have a decided majority from Fifth Year, we feel that we ought to be proud of ourselves. We (speaking for the whole School, I hope), all wish to congratulate First League, under the leadership of Harry Ramsay, for winning the University Shield, and thereby becoming State Champions for the ensuing year.

In athletics, we have a few good runners in the persons of Phelan, Twogood, Ramsay and Hore, who did well at the last sports meeting.

At the last midwinter vacation, a party from our School visited "Kossy," and now we can get an "Er Klärung" of the old proverb "Birds of a feather flock together," for if a half-a-dozen boys are seen wandering around our playground, with blue shirts on, we can come to the conclusion that they were contained in that party. Another method of recognition is to be opposite the "Capt. Cook Hotel" about 3.30 p.m., and watch if they are conversing "mit linigen mädchen."

In conclusion, we wish to congratulate A. H. Young on being elected Turner Prizeman for 1925, and hope that candidates both for Intermediate and Leaving Certificates, will be successful in their respective exams.

4A.—

As usual, we have had a host of suggestions. Also, as usual, most of them are valueless. Of course, being such an important class, we find it difficult to put suitable matter before you, and we can assure you that our class representatives are dreaming of an enormous dragon, which continually wails "Class Notes! Class Notes!"

The end of the year is drawing nigh, and many are the experiences we have had during it. We have painfully discovered that the "Loafer's Paradise," which was so alluringly painted to us while in third year, is non-existent.

From the windows of room ten we overlook a beautiful vista of 10ft. x 15ft. backyards in the foreground, with farther back, a glimpse of the—er. domes and towers of Paddington. Through these same windows there floats the melodious—or otherwise—call of "Sweet juicy lemons," and the fragrant whiff of whisky and rum as the "Bottle-oh" passes.

Our mathematics is advancing by leaps and bounds. A certain boy of our class, who is keenly interested in wireless, while endeavouring to see daylight through an interesting (?) theorem, stated that the plural of radius was radio—not radii—as is generally thought.

On another occasion a particular teacher spoke of the lack of School spirit in most boys.

Perhaps this is due to the fact that no drinks have been sold at the Tuck Shop for almost six months.

Our class room—room ten—is very beautiful, especially the blinds in it. When we were told about this by our English teacher, several boys occupied their dinner hour in inverting every picture in the room. They also placed several artistic (?) cartoons round the room—just to show their aesthetic turn of mind.

The yearly examination is steadily approaching. It is to be a veritable example of that old maxim "The survival of the fittest."

One boy of our class endeavoured to prove that infinity is equal to nothing. The only fault that could be found in the proof by our maths. teacher was that, to say the square root of infinity is equal to infinity is not quite correct. Our highly esteemed mathematics teacher went on to say that many things, which are not quite correct in practice, can be proved by mathematics. He gave us the following example:

A man half dead is equal to a man half alive. Multiply both sides by two, then a man dead is equal to a man alive. In the same way it may be proved that a bottle full is equal to a bottle empty. So wonderstruck were we at these statements that we would not be surprised if someone came forward with the proof that the moon was made of green cheese.

As we look back on the happenings of this year, and realise how we have progressed in French, some of us can truly say "we have struck a real French teacher at last." His war cry all through the year has been "Accuracy! accuracy!"

Now for the field of sport. We do not wish to praise ourselves, but allow us to mention a few of our deeds.

We won the class soccer competition. In the annual sports 4A. won the tug-o'-war.

A few weeks ago, 4A. played 4B. cricket (not marbles). The results speak for themselves:—4A., runs—48. 4B., runs—10. Were they badly beaten?

We had two representatives in First Soccer, two in Second Soccer and one in First League. Each team for which these boys played won its competition.

We will now close down, and leave a little room for our infamous rivals—4B.

4B.—

How rapidly this year has sped on! Here is November, almost before we have realised it. And what have we to show for all these fleeting months that have been spent, in this, our fourth year? A disappointingly meagre show, we fear. For, to be perfectly candid, this year has, more or less, been a time of ease. Compared with our previous year's effort, we scarcely know what it is to have home lessons (or is it that we don't do them?), and our individual efforts in School work spoke for themselves at the last term examination.

But, as has been truly remarked, the successful man in life is not always the one who was brilliant in his schooldays, gaining high marks in examinations, or in other ways excelling in schoolwork, but he who is possessed of the strongest willpower, grit and perseverance. This, however, must certainly not be construed into a commendation of the policy of "trust to luck," or, in other words, let things take their own course. A real and stern attempt must be made in the direction of improving oneself in those subjects in which one is particularly backward. To say that a certain subject in the curriculum will prove of no practical value in the future—that one will not require it—is to forget that one can never tell in what circumstances, in later life, he will be placed. Nor is this the only reason that can be advanced: the fact of one's having exercised his mind in learning—shall we say, French or German (someone suggests History), enables him the better to elucidate the problems of life, than one whose mind has not been so trained.

One feels that some sort of apology is due to the reader, for having set out, presumably, to write an account of the class' movements during the year, but in lieu thereof, to sermonise. This, however, is perhaps justified by the proximity of the end of the year, when a number of those in our midst, who have been with us, under the guidance and assistance of our alma mater, for three or more years, will be entering upon the highway of life.

Regarding School-work, a brief retrospective survey reveals, as indicated previously, a rather colorless ten months, brightened, perhaps, in places, by such achievements in the May examination, when the first place in the year, and a number of first places in special subjects, were obtained. A great majority of the rank and file—where were they? It were better to say, with Longfellow:

"Let the dead past bury its dead."

Figuratively speaking, Mathematics has proved a most gigantic pill—at least to most of us—to swallow, but to those to whom it presents an apparently insuperable difficulty one tenders this advice: break the pill and it will be found easier, though perhaps bitter, to assimilate. By this we would suggest, than an exhaustive revision be made, and the four subjects of the department revised, section by section. To continue while the foundation is faulty is useless (and one master in particular will confirm this).

With regard to other subjects, little need be remarked. On the surface of things, Chemistry and Drawing are proceeding swimmingly; English sees us labouring through Thackeray's disjointed and rambling novel, while Physics has taken a turn to the left, disappearing into the woods of Dynamics.

Instead of following the usual custom of giving, at this stage in the notes, an account in detail of the sports in which members of the class have participated during the season, we beg to be excused from giving more than a brief mention. In the Annual Sports, we have two successful competitors, Tyson and Hamilton. To say the least, with regard to cricket, those participating are not brilliant, possibly on account of the number of "dark horses," who are busy on Wednesday afternoons, and whose services are never obtainable!

Now, reverting to our discussion of things appertaining to the attitude towards one's "weak" subjects. Quite a number in our midst will, as was remarked previously, be leaving the School. But in the meantime, cannot one last, genuine effort be made, to fix at least a few of the principles of that subject which is so distasteful, in one's mind? It is due to one's own self to do so. And, in closing, may we express the hope to those leaving at Christmas that, while setting forth to earn their living, after having finished with "Tech.," they may yet retain some recollections of their old School, and pleasant reminiscences of 1925, when they were in 4B.

3A.—

We're worried and worn to perdition,  
Our gladness is passing away,  
'Tis a dreadful examination,  
That haunts us by night and by day."

But despite these lines we have good reason to believe that 3A. will top the Intermediate results. Even Mr. M——. told us that he was pleased with our performance in the recent examination. As usual, Browne showed the rest of the year a clean pair of heels.

In sport we have had bad luck by narrowly missing the "knock-out" competition, having gone through undefeated, ably captained by H. Stanton and A. Bailey. We are well represented in Grade Soccer, Rugby, Tennis, and Cricket. In Grade Rugby we have Healey, Moir, Ibels, and Coombes; in Soccer, Stanton, Warren, Madgwick and Laidlaw; in Tennis J. Smith, Stewart and Price.

3A., although a studious class, is by no means a quiet one; we are told that every day. Various members of the Staff take it differently. For instance Mr. T——. wonders how we combine noise with theorems and quadratics; Mr. E——. keeps us in for five minutes; Mr. C——. delivers the lesson later (at 3.15), while for Mr. D——. we do our few extra verbs and for Mr. B——. we do our lines and lines of poetry.

Well, wishing all the other third year classes good luck in the coming Intermediate, we bring these learned lines to a close.

3B.—

Entrez 3B.—

Though a German class, we hope our "Froggy" contemporaries will not begrudge our using this scrap of their especial delight. We also hope it is correct.

Now that the Inter. is drawing nigh, we have very little time to spare from our studies; hence these notes must be very meagre in quantity. However, we must atone for any delinquency in that direction by producing notes of a quality that will cause 3B.'s to stand out from all other classes.

We are fagging hard for the dreaded trial to begin on the 18th November. Now that the "yearly" is over we have a fair idea of our position. Those six subjects still seem a long way off.

When the exam. came we were in divers frames of mind; there were the fighting optimists, the calm fatalists, and the lugubrious pessimists. An attitude of pessimism is only conducive to failure; so, before sinking to that stage, why not give auto-suggestion a trial?

The books we are studying are interesting, and are liked by the majority of the boys—the love scenes of the “Merchant of Venice” especially so. How many budding Romeos are in the class? We do not consider ourselves equal to the task of studying the “Book of Ballads.” The remarks passed about the book, by some of the boys who had ventured to see what lay between the pretty sky blue covers, would have caused Messrs. J. C. Smith and G. Soutar to commit suicide on the spot.

Mr. Noakes, our class patron, who also has care of our English and History, is working at high pressure to enable us to obtain A.’s in the Inter. in these subjects. Mr. Mann says that our History papers were the best he has marked for a number of years. Much of this credit is due to Mr. Noakes, who has worked with unfailing energy from the jump off.

Our Maths., under Mr. Schrader’s able guidance, are progressing painfully, but nevertheless are improving. We proved ourselves the best of the Third Year Classes in a test conducted by Mr. Williams.



The body in the bag.

Mr. Belschner has kindly offered to take a number of us for extra lessons on Monday afternoons, and we take this opportunity of thanking him. We hope for more A.’s in German than were received last year.

Parker came top of our class, with Sawkins in second place.

The legendary goat which ate newspapers by the score has a serious rival in our class—a certain lad has been noticed lately vigorously chewing up pieces of his exercise book. It is to be hoped his digestive powers are in good order.

To leave the scholastic and revert to the sporting side.

At the recent athletic carnival 3B. showed out prominently.

Our class won the four men relay by about 10 yards. Harold Eilbeck won the Junior Pole Vault, and tied with two others in the Junior High Jump. Miller was third in Senior Pole Vault. Brownbill secured second place in the Junior Hurdles. The Senior High Jump was also won by Miller.

Cousins, Eilbeck and Miller represented the School at the C.H.S. Sports.

The Class Handicap, 100 yards, was won by Nicol, with Miller second and Cousins third.

The 220 places were gained by Smyth, Miller and Paterson.

A “sad” accident marred the finish of the 220. One of the boys lost his trousers, and created a mild sensation in the stands.

Our class Soccer Team reached the semi-finals, but was defeated by 4A. We hope to have a better cricket team this season. We have received a forfeit from 3A in the first match.

Miller and Cousins are playing in Grade Cricket.

In conclusion, allow me to point out to the other Second and Third Year classes that of six prizes given by Mr. Guildford for Scripture Essays, four have been won by 3B. boys. This speaks for itself.

This being the last *Journal* of 1925, we wish our fellow Third Year and also Fifth Year the best of luck in forthcoming examinations. May they also be successful when they venture into that great whirlpool called Life. Many are now entering upon their last few weeks at the Tech., and when the exams. are over will strike out into the world, some to attain fame and fortune, others to remain in the “rank and file.” But wherever they go, may they always remember the old T.H.S.

And so, adieu.

3C.—

3C. is the most progressive class in Third Year, as the greater majority of our boys have been nominated, and all nominated are out to justify their privilege by hard work for the next month.

A. Murrell was the first boy in 3C. with an average of 70% in the recent examination, with Sedgemen second with an average of 60%.

One of our boys, W. Bailey, has done exceptionally well, considering that this is his first year here, and that Woodwork, Metalwork, and Drawing were entirely strange to him. Despite this, he passed in seven papers, including the above subjects.

Most improvement this half-year has been in mathematics, which was very poor last examination.

In the field of sport 3C. is very prominent, and is running second in the Class Competition. The team is as follows:—

J. Devine (Captain), W. Bailey (Vice-Captain), H. Thomas, Easterbrook, E. Stanwell, F. Poulden, J. Brown, R. Hatton, A. Sinfield, S. Johnston, A. Murrell.

The bowlers comprise Brown, a left-hander, Stanwell, a medium pace, and Easterbrook, a left-hander.

The batsmen are:—Poulden, Stanwell, Devine, Thomas, Easterbrook. Our wicket-keeper, F. Poulden, is probably the best in the competition. Easterbrook is a very good fieldsman.

G. Negus is our best all-round player, but this season he is playing 3rd grade. He is also a good swimmer and, we hope, will do well in the next swimming carnival.

3C.’s tennis Captain is H. Dengate, who plays a great game, but Dodd is a close runner-up.

3D.—

We are the 3D. warriors,

A class of great renown,

We come from the Technical High School,

Somewhere in Sydney Town.

Once again we appear upon the scene, victorious, glorious, notorious, gorgeous, and cautious. To say that we are the best class in the School would be only bragging, but it is nevertheless a fact.

We are looking forward to the coming exam. with exceedingly great joy (?), but Mr. M——. prophesies that there will be “weeping and wailing and gnashing of teeth.” Of course, we all excuse him for making a mistake, everybody makes mistakes sometimes.

We are all looking forward to nomination for the Intermediate. Now for 3D.'s sporting activities.

In the Class Soccer Comp. we were running for first place, when the Class Knock-out commenced. This, of course, spoilt our chances. The following members consisted of our invincible team:—

Weeding (Capt., R.W.), Chapman (V. Capt., L.W.), Newall (I.R.), Howlett (I.L.), Fowler (C.F.), Barton (R.H.), Sutton (C.H.), Aurousseau (L.H.), Mahoney (R.B.), Williams (L.B.), Beavan (G.), and Raymond as reserve.

In the Competition we played 1B., 2A., 1A., 2B., and 1D., defeating them 3-2, 4-0, 5-3, 5-0 and 1-0 respectively. Our scorers were:—Mahoney 5, Chapman (V. Capt.) 4, Newall 3, Raymond 1, and Weeding (Capt.) 6.

We hope to do even better in the Cricket Comp., our team being: Beavan (Capt.), Fowler (V. Capt.), Barr, Mahoney, Weeding, Rouse, Newall, Chapman, Hannah, Moorcraft, Fox, Aurousseau, Froyland, Barton and Geary.

Drawing the curtains, 3D. discreetly withdraws.

2A.—

2A. did well in the Class Soccer, reaching the semi-finals, where we were defeated after a hard game; we hope to do even better in cricket this season.

We are progressing favourably in our School Work, and all of us are studying (?) for the yearly exam., which we will all pass easily. Although some of our masters doubt us, they do not know properly our abilities at exams. Home-work still tortures us at night, although it has slackened of late, so we are able to survive it.

We are all financial for the Union Subs., except two or three Scotchmen, who love to count all their money at night.

The Order of the Quad misses us dreadfully, but we do not seek fame, hence the reason of our absence from Room 10.

Thistlethwaite has left 2A., and nevermore will we hear his cheerful chirp of a morning. Many tears are indulged in by the class at this terrific calamity. Some inhuman brutes even cheer.

Our teachers have been telling us all about the exam., and it does not sound very cheerful, from what we have heard.

Several of the class are patronising the swimming hole down at the Domain, while others favour Bondi.

We seem to have some very intelligent boys in 2A., as our Maths. teacher, Mr. A——, told us that we had the most trying boy in the School. The person concerned thought it a tremendous compliment. We have not yet enlightened him.

Last week 2A. conquered 2B. in a deadly fray—of cricket. 2B. was beaten by 5 wickets and 58 runs.

We had Gilliland as a representative in the Combined High School Sports, where he ran very well.

One lad last week brought his pyjama pants in mistake for his apron into the manual room, whereby much mirth was caused.

We must now exit, as 2B. is striving to appear, so goodbye till the next issue.

2B.—

The famous class 2B. will now tell the School what news they have.

In the first place, we had very good luck in the last examination, through two of our boys taking first and second places out of all Second Year. To these two boys (they know who they are), the whole class is greatly indebted, and wishes them, as well as ourselves, much good luck in the coming exam.

There has been a lot of trouble throughout the School, through different classes having dirty rooms.

One day, one of the teachers accused our class of having its floor dirty; but after a short talk with Mr. M——. and a very little trouble, we proved ourselves not guilty.

We will now tell you about the sporting side of 2B.'s life.

In the past Class Soccer Competition, we did fairly well; but in the Cricket Season which has just started we hope to fare a lot better, as it is only a First and Second Year Competition.

Two of our best men, Taplin and Alksne, have left, but their absence will not make much difference, as we have a good team.

McCoy is a good wicket-keeper and Tye is our best batsman. It is believed that we have several budding bowlers.

The swimming carnival is to be held shortly, and it is in this that we hope to make a name for ourselves.

We will now close down till the next *Journal*, so good-bye.

1A.—

"1A. semper optimus est,"

Which means "1A. is always best."

We enter again into the public eye with a flourish of banners, and we note with pleasure the signs of joy on every face as 1A. enters the ring for the coming battles of exams., for it is well-known that many of our classmates hope to get a double promotion.

Latin is our best loved (?) subject, because we are often invited to have afternoon tea (without the tea, etc.), with one of our respected teachers. The parties generally end between 4 p.m. and 4.30 p.m.

French is the next subject to be mentioned. Our work in this subject is very fair. In the rest of the subjects we are fairly proficient.

We regret the loss of a drawing period each week, but this period is devoted (?) to the diligent (?) study of that ancient language, Latin.

Our class football was not worth much, for we only won one game, although we had an able "skipper" in L. C. B——.

The cricket season has started, and so far, we have drawn one match and lost the other. We have a good player in our cricket team, R. B——, who in our first match scored 56.

It is to be hoped that our cricket prospects are better than our last season's football prospects.

The Non-fare Paying Society at Chemistry is still fairly well patronised by certain youths.

Some long faces have been noticed lately among the other First Year Classes, but not in 1A., because we are all certain (?) to get a double promotion into Third Year (???).

We must end now, as all good things have to end, to make room for the other First Year classes.

1B.—

Here we are again, the notorious class 1B.

Needless to say, we are all "fagging" our utmost (which, I might add, is not very far for some of us), so as to be prepared for the oncoming yearly exam., which is to take place in November.

As we are all certain of obtaining a double promotion (?), we look forward to the exam. It has no dread for us.

But, enough of such talk; let us turn our reflections to sport.

As was only to be expected of such a class as 1B., we came very near to winning the Soccer Comp., coming second in it. The class was well represented in Rugby League Grade Games. With Daniel in Second Grade, Lundy in Third, and Coates and Lehmann in fourth, we were able to keep our noses as high as any other First Year class.



As swimming has now taken the place of football, our champions will have a chance to distinguish and uphold the name of 1B. at the swimming carnival, which most likely will take place early in December. As to class games, we hope, with this season's cricket team, to make a better name for ourselves at the game than we did last year, or even as good a name as we made at Soccer last season.

We had better "ring-off" now, so as to give the other first yearers a chance to have a "say."

Best wishes to all in the oncoming exams.

1C.—

Make room! ye lads,  
For it is 1C.,  
The pride of the School,  
As you may see.

Since the last issue of the *Journal* we have progressed wonderfully, mainly due to our excellent teachers.

Of course, we all hope to gain double promotions into Third Year, although many have the idea that they will do so by giving water-pistol exhibitions or chewing-gum displays.

An unflinching four have lately taken possession of the back seats, and at intervals we are given an entertainment with two pieces of tin and three "gum-tree squeakers."

Our class jester, "R—," excels in drawing teachers' portraits through glass windows, and they compare exceedingly well with squashed tomatoes.

Rubie, our class recorder, has done us good service, and it will be very hard to find another who will "stick the job," although he seems to chew the chalk during certain periods.

At 8.30 a.m. one can generally depend on seeing a queue of 1C. lads waiting for a game of table tennis in the basement, or perhaps trying to peep at our "three metalwork students," who are making fine progress with their steam—etc.

Well, in the sporting side of life we are much more interested.

We have the honour of being one of the two classes in the School who have no non-unionists—mainly due to the encouragement of Mr. S—, our class patron.

Last season we were well represented in Grade Football—Hutchison, Boyle, Askin, McCormac and Firth in Fourth Rugby, and Kerr in Second Soccer.

At the last sports meeting we did not show up too well. In the tug-o'-war we were narrowly defeated by the chicken-hearted 4A. class, to whom the umpire seemed to give all advantages. Although it was not fair, we did not interfere, for we are the "Sports of the School." We also came second in the ten men relay.

Our first attempt at cricket for the season amazed most boys—we easily defeated 1D. by four wickets. Askin scoring 33 runs gave the best performance.

We hope to be well represented in the forthcoming swimming carnival. The exam. can come, for we do not fear.

1D.—

1D. holds its own amongst the First Year classes. After carefully compiling our notes, we present them as an attempt in craftsmanship, unsurpassed in First Year. Naturally we are studying diligently with the aspiration, held by all, of entering Third Year after Christmas vacation.

We all like our subjects, wood and metalwork especially, and we find German interesting. With the help of Mr. S—, we will soon be able to have long conversations.

We have some comedians in our class, but the main one comes from Drummoyne.



1D. made great efforts to win the events in which they entered in the recent sports. We are proud of a couple of runners in our class, and especially Mutton, who helped our School in the C.H.S. Sports. Hodgkinson, our crack bat, is starting well in cricket this season, and we hope he knocks up a few more centuries like he did last season.

We find Mr. L—, is very nice and makes some fine jests during his period. We also find him a good class patron.

We will close these notes now and make way for other budding authors, after wishing you all a Merry Christmas, as this is the last *Journal* for 1925.

## PERTH TO SYDNEY.

Standing at Perth Station and surveying the train which is about to leave, carrying its passengers to the Eastern States, one has the impression that the journey about to start is going to be almost akin to glorious; the passenger is not far wrong.

On leaving Perth the train runs through the outer suburbs, and after covering a few miles of level country, begins to climb the hills bordering the city. During springtime these hills are covered with all kinds and colours of exquisite flowers. Farther inland comes undulating country, covered with fields of everlasting flowers. As the train traverses the country, one passes farms where wheat in abundance is grown, and from this wheat Western Australia obtains a large proportion of its sustenance.

After being in the train for seventeen hours, the train arrives at Coolgardie, which is the old gold-mining centre of Western Australia, but as the gold has now been exhausted, the place has just been left and the whole town seems to have moved on to Kalgoorlie, which is the centre of

to-day. Nowadays Coolgardie looks like a bombed city, because as the place is almost desolate of population, the old town is crumbling to ruins. Leaving Coolgardie the train runs for a couple of hours through deserted country until it arrives at Kalgoorlie. Here passengers change trains, as the line from Perth to Kalgoorlie is only the 3 feet 6 inches gauge, and the Transcontinental Railway from Kalgoorlie to Port Augusta is 4 feet 8½ inches gauge. On leaving Kalgoorlie the Transcontinental train runs for about twenty miles through dense scrub, and then quite suddenly the country changes into blood-red sand, with occasionally, here and there, patches of salt-bush. This is the Nullabor Plain, over which the railway stretches for three hundred and seventy-five miles in a dead straight line.

When I left Kalgoorlie in the Trans. train, we ran into a sandstorm, which obliterated everything for about two hours until we had run through it.

The Nullabor Plain has an average rainfall of one inch per year, and while crossing the Plain we escaped a very heavy storm which had left a trail of devastation behind it. Scrub was blown across the line and in places the ground was inches deep with water, whilst against the salt-bush were piled heaps of hail.

During the second day in the transcontinental train we crossed the Salt Lakes. These lakes, with the sun shining on them, dazzle the eyes, as sometimes there is nothing to be seen but a great expanse of white. After two and a half days' travelling, the train arrives at Port Augusta, where passengers have to change trains again, as the gauge changes to 3 feet 6 inches. Not much of Port Augusta is seen by the passenger, as the train arrives at half-past five in the morning and leaves again at eight o'clock. From Port Augusta the train winds up the mountains which surround the town, crossing great gorges and displaying marvellous scenery before the passengers' eye, until "The Summit" is reached. Then the line winds rapidly down to Quorn, where the line to Oodnadatta joins the main line. From here the line traverses fairly level country, through numerous farms, until, seven hours after leaving Port Augusta, the train pulls into Terowie, where another change is necessary to travel on the standard gauge, namely, five feet three inches. Five hours from Terowie the train arrives at Adelaide.

Adelaide is a beautiful city. At a two-mile radius from the Town Hall, a well laid out park surrounds the city, which is situated on the pretty River Torrens. Boarding the train again at Adelaide, nothing more is seen until Ararat is almost reached, as the train leaves Adelaide at eight o'clock at night. The Victorian countryside is extremely pretty, and some twenty miles out of Melbourne the train descends a zig-zag to Bacchus Marsh. From the top of this zig-zag a wonderful view is obtained. Shortly after the train arrives at Melbourne.

Melbourne is a well laid out city, with some beautiful parks, and at some of the suburbs a very enjoyable time may be spent. After about five hours at Melbourne the train starts for Albury, where another change of trains is necessary, as the New South Wales and Victorian railway gauges differ. This change occurs about half-past ten o'clock at night. Leaving Albury, the next place the passenger sees is Goulburn, at six in the morning. I hardly think it is necessary to describe the journey from Goulburn to Sydney, as I think it is so well known to everybody, but I may say that if anybody wishes to have an enjoyable trip, the above mentioned is one of the best that can be recommended.

G.L., 4A.

## A RAMBLE, OR THE PIONEERS' LITTLE CEMETERY.

Down in the valleys where blue-gums are growing,  
Over the hills, in the sunlight, that glow,  
Through the deep gorges where streamlets are flowing,  
Plunging 'midst bushes and wild flowers I go.

Songs of the birds from the tree-tops are ringing  
Making the whole of the woodlands resound,  
Ev'rything here seems with joy to be singing,  
While perfumes of flowers are spread all around.

Bushes and grass of a rich verdant texture,  
Splendidly match the great blue dome above;  
Each slender bough with the gracefulest gesture,  
Sways as the gentle breeze makes it to move.

But—what is that by yon creek where those willows  
Meet, and their curtains of green interlace?—  
Where the radiant sun from his soft fleecy pillows  
Pours down all the light and the warmth of his face?

What is that by the rocks where the bright water gushes,  
Ending this stretch of green grass growing tall?  
There overrun with wild plants and thick bushes,  
Is something that seems like an old sandstone wall.

As I to this myst'ry draw nearer and nearer,  
Still the sound of the birds' music grows;  
Quickly the scene there before me grows clearer—  
Everything resting in calmest repose.

Scarcely the breeze in the bushes that whispers,  
Causes the leaves of those bushes to stir,  
Like to the hour when the soft and low vespers,  
Float up to heaven on the cool evening air.

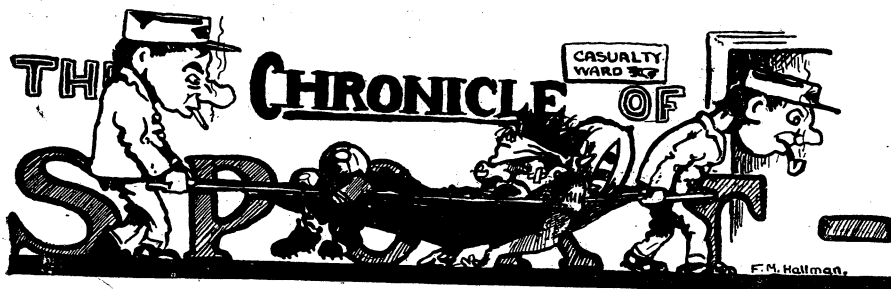
There, draped with vines, is a low-walled enclosure,  
Ancient, forgotten and weed over-grown;  
Dirty and worn with long years of exposure,  
Stand headstones within over those long unknown.

Tall, massive grave-stones and hoary old crosses,  
Stand calm and silent in five stalwart lines;  
With the base of each stone green with long growing mosses,  
And some of those stones hung with dark clinging vines.

Many and many a winter's blast, biting,  
Piping its way over hill-top and vale  
Has swept over here, these aged stones smiting—  
But firm they have stood in the strength of the gale.

Many a time they have seen spring's bright flowers  
Shoot up to blossom and die down again:  
Familiar they've grown with the light summer showers,  
And oft has the storm beaten on them in vain.

Sign-posts, they stand, to the future before us,  
Showing the grave must take every frame;  
Yet we may not only leave tombstones high o'er us,  
But names deeply carved in the great rock of fame.  
A. LONG, 3A.



The School did well—remarkably well—in the High School Winter Competitions.

We had a better record in 1914 and an equally good one in 1919.

THE LEAGUE TEAMS were good, though not as good as first indications promised.

THE FIRST GRADE TEAM was a very keen one, and turned out to practice consistently and well. The members took a pride in their play and in their appearance, and in both respects were well up to the standard expected from a School such as this.

The team was undefeated in competition matches, scored heavily, and till late in the season had not had the line crossed. In the State Championship the School did equally well, and carried off the coveted University Shield.

The opening game against West Kempsey was the hardest. Our opponents were a very fine lot of nippy, hard players, whose game under the leadership of M. Flanagan was the best seen from a country school for many years. Their hard tackling and quick breaking rattled our attacking machine for the greater part of the game, but our stamina and persistence were rewarded, and we completely dominated the last stages of the game, winning by 13 to 8.

In the final Central Technical played far above expectations, and had our team going for a considerable time. We won out by 23 to 10.

We record a few impressions of the players.

HARRY RAMSAY made an excellent captain. His understanding with the half and centres was good, and was a great factor in the team's success. He handled well, ran strongly and tackled hard.

LAUGHLIN, the vice-captain, who played lock, and, when needed, as utility man, was also very keen. A quick moving and heady player, he worked in well with the backs and gave great protection to the half.

PERYMAN made a safe and capable full-back, who tackled hard and well, took well, and on occasions kicked with judgment. His goal kicking was occasionally very fine.

BARNARD as a flying winger did not have many opportunities—was inclined to baulk, but did several very fine runs. He could tackle hard, too.

BERTWISTLE, the other winger, got much more to do, and with the centres and half did some fine things. He needed more devil in his play, however.

MORROW has developed into a very fine centre. He is an opportunist, and, like great opportunists, he gained us victory when needed. A fine runner with a good swerve and dummy, he scored many fine tries. He did not relish tackling, but could do so hard and low sometimes.

EGAN made another good centre. His handling and fielding were clever, and his tackling a lesson to all the others. Egan was our best defender.

POWYS made a hard half. Rather fond of hanging on, he sometimes cramped the game, but could open it up, and generally joined with the other backs in the good movements. He is a great scorer near the line. The harder the game the better Powys liked it.

MILLER and TYSON—the giants of the team—can be taken together as good triers. Both have pace and weight, and only need the experience to make very fine forwards.

PHELAN—a front-ranker—played good football on many occasions, but stood off too much when the going was real hard. N.S.W. selectors would class him as a “shiner,” such as Burge was and Carr is.

DE PLATER—the solid man of the team—did not realise how well he could play till well on in the season. Experience is all he needs.



#### FIRST LEAGUE.

Premiers 1925 State Champions 1925.

Top Row, left to right—J. Salvatori, J. Coombs, N. Laughlin (Vice-Cap.), C. Tyson, J. Miller, E. Phelan, K. Salmon.

Middle Row—R. McCurley, C. Taylor, W. Egan, H. Ramsay (Capt) E. Powys, M. de Plater, C. Barnard.

Sitting—E. Bertwistle, E. Hore, N. Perryman, G. Morrow.

TAYLOR made an excellent hooker and a great leader for the forwards. His slogan was evidently “follow me,” for he got away with the ball or downed the opponent most consistently. He was undoubtedly “the forward.”

STRONG as a reserve played really well when needed, but did not show the keenness for practice that is necessary to make a good footballer.

SALMON played several games in the forwards, and was always useful. We record our appreciation of his action in being always ready to fill a place, and always there to do it. That is the spirit!

THOMPSON and COOMBS had a game each with the Firsts. It shows how strong the team was when these players were not needed regularly.

SECOND LEAGUE were runners-up for the Shield which we parted with to Randwick. They were one point ahead of us. Second League did not deserve to win, for they were not keen. Seldom did the whole team

get down to practice, and so the play could not expect to be what it should have been. We tried very hard to get the team worked up, and got many games for them, but they did not respond well. Injuries or sickness also handicapped the team, who had a limited number to select from. Waites, Paterson, Hore, Vizzard, and Salvatori played good football, while Barr and Prior, as beginners, both very keen, deserve great praise for the fine improvement in their games. Thompson came into the team late, and greatly strengthened it. His tackling was excellent and his general work good.

THIRD LEAGUE did well and qualified for the first four, and finished third. They were unfortunate in meeting such a fine team as Randwick III this year. Several players show promise.

Hurkett—the captain—Christian and White, did well in the backs, and Stanwell, Healey, and Farrington were the best of the forwards.

FOURTH LEAGUE were a much better team than their record makes out. They were never badly beaten, but mostly were beaten. This was due mostly to the backs being slow. We did not have one really fast back. The Fourths were keen and good practisers. We were very pleased with the play of Boyle and Tye in the backs, and of Coates, Askin and Punter in the forwards.

FIRST SOCCER won the Premiership and Soccer Shield. Their play throughout was very consistent, but they suffered one defeat by Peter-sham by 1 to 0, and doubtless that was due to wrong tactics in shuffling the



#### FIRST SOCCER

Premiers 1925

Top Row, left to right—H. Stanton, R. Twogood (Vice-Capt.), S. Smee, H. Toiles, W. Domaille.

Middle Row—N. Pople, R. Brownbill, A. H. Young (Capt.), K. Dodd, S. Cousin.

Bottom Row—N. Cummings, N. Thornett.

team. Captains are advised that that is a very poor expedient generally. The team was well balanced with the greater strength in the forwards.

Smee, Dodd, Twogood, Brownhill and Joils made a fine attacking line. The halves, Thornett, Young and Cousin, were fairly solid. The backs, Stanton and Pople, were good, but not over consistent. Cummings in goal was safe, and good, if on occasions rather showy.

SECOND SOCCER are bracketed winners with Central Technical, with whom they battled out a final which ended 3 all. Second Soccer in that game were caught asleep, and had 3 to 0 up very early in the game. It speaks well for the grit of the team that they battled to the finish, and were well on top of their opponents when the game ended.

Second Soccer, like Second League, did not deserve to win. Many were not keen to practise.



#### SECOND SOCCER.

Joint Premiers with Central Technical, 1925.

Top Row, Left to Right—G. Laidlaw, D. Fowler, L. Brooks, M. Livingstone, N. Warren, R. Madgwick.

Middle Row—C. P. S. Ludeke, J. Georgeson (Capt.), R. McCue, L. Newsam.

Bottom Row—R. Keer, J. Newson.

Livingstone played well as fullback, Laidlaw made a good centre half, Madgwick was the best forward except in the last match, though the whole forward line was good. Warren, Georgeson, Ludeke and Kerr all played splendid games at various times. Second Soccer were undefeated.

THE BASEBALL team was a strong one, in its first six men. The others just filled up. We appealed several times for recruits from among the big boys, but got no response.

Our battery was strong. Mould caught safely and Freeman was quite the best pitcher in the competition, and one of the safest strikers as well. Riddell, Eilbeck and Plater filled the bags with credit. Carter and Holborrow were useful. Our boys played well up in the competition, and had several close and exciting games.

FIRST TENNIS were well up among the leaders, but suffered defeat by Fort Street and North Sydney, and were thus placed third.

Forshaw and Campey were the stronger pair, but Smith and Stewart did very well for first time in "A" Grade.

SECOND and THIRD TENNIS were not bad teams, but wet weather interfered so much that no one could tell how the teams stood, and the comps. were practically abandoned.

The tennis season was, on account of wet days, a very poor one.

Many of our players represented in the various combined games.

The whole League 13 were in the C.H.S. team as players or reserves, and played against the Secondary Schools. We consider the P.S.A.A.A. was very lax in not getting a C.H.S. League game for that fine team, either in the country or in Queensland.

Salvatori, of the Second League, played against Queensland, and played well too.

Young, Twogood, and Joils represented in the Soccer games played before the English games. We were surprised that the selectors could leave out of the N.S.W. under 14 years' team such good players as Kerr and Livingstone. We did not see anything as good in the positions in the selected teams.

Mould, Freeman, and Riddell found places in the C.H.S. Baseball sides, which played early to the Fleet Games. Mould and Freeman made the strongest battery.

Class games were very popular. The Soccer Competitions were good. Much credit for the success of these games is due to the boys of the Grade teams, who did the refereeing each week.

3A. were the winners of the Class Competition, and 4A. the winners of the Class Championship.

1D. were the winners of the First Year Comp., and 1B. were the winners of the First Year Championship.

1B. gamely challenged 4A., but of course were well beaten. We were highly pleased with the play of several First Year boys.

Heness and Holmes, of 1D., Oliver, Gannon, Tester and Jardine of 1C., Hansom and Sparks of 1B., are very promising players.

Several League games were also played. 4A. were too good for 4B., but not much. 3B. were the best Third Year Class; also Third Year defeated Fourth Year, but we doubt whether they would have done so, had both been at full strength.

Cricket is again in full swing.

First Grade, who showed fair batting form, were defeated by S.H.S. in the first resumed game, and the undefeated Third Grade went down to Parramatta Int. High by 107 to 88.

There are 12 teams in the Class Competition.

Our Sports Meeting held at the Sports Ground on September 9 was carried out in fine weather very successfully. We congratulate the boys on the sensible conduct of events, the quality of the contests, and the charm of the barrackers they brought along. We give the results:—

### Senior Cup.

1 Mile.—Phelan, Weeks, Plater. Time, 5m. 13s.

880 Yards.—Phelan, Weeks, Taylor. Time, 2m. 29s.

440 Yards.—Phelan, Twogood, Plater. Time, 61 1-5s.

220 Yards.—Barnard, Twogood, Morrow. Time, 25s.

100 Yards.—Barnard, Hore, Bertwistle. Time, 11 1-5s.

Hurdles.—Hamilton, Powys, Phelan. Time, 21 4-5s.

High Jump.—Miller, Powys, Phelan. Height, 5ft. 1in.

Broad Jump.—Plater, Morrow, Peryman. Distance, 17ft. 2½in.

Pole Vault.—Morrow and Campey 1, Miller. Height, 8ft.

### Junior Medal.

880 Yards.—Thornett, Tyson, Punter. Time, 2m. 35s.

440 Yards.—Jones, Tyson, Grant. Time, 62 3-5s.

220 Yards.—Egan, Tyson, Jones. Time, 26 1-5s.

100 Yards.—Egan, Tyson, Jones. Time, 11 2-5s.

Hurdles.—Grant, Brownbill, Jones. Time, 16s.

High Jump.—Tyson, Eilbeck, and Jeppeson (dead heat). Height 4ft. 9in.

Broad Jump.—Eilbeck, Barr, Egan. Distance, 16ft. 8in.

Pole Vault.—Eilbeck, Stead, Mould. Height, 7ft.

### Junior Cadet Medal.

440 Yards.—Mutton, Sparks, Pooley. Time, 76s.

220 Yards.—Mutton, Gilliland, Smith. Time, 29 2-5s.

100 Yards.—Mutton, Hurley, Sparks. Time, 12 1-5s.

Hurdles.—Mutton, Clarke, Steinbeck. Time, 16 2-5s.

High Jump.—Mutton, Sparks, Gilliland. 4ft. 6in.

Broad Jump.—Mutton, Hurley, Howlett. 16ft. 11in. (Record).

### Other Events.

#### CLASS HANDICAPS.

5A.—100 Yards.—Morrow, Egan, De Plater.

220 Yards.—Egan, Plater, Young.

5B.—100 Yards.—Hore, Twogood, Phelan.

220 Yards.—Twogood, Ramsay, Phelan.

4A.—100 Yards.—Wrench and Peryman 1, Black.

220 Yards.—Peryman, Christian, Wrench.

4B.—100 Yards.—Hamilton, Laughlin, Tyson.

220 Yards.—Laughlin, Ludeke, Winston.

3A.—100 Yards.—McGlynn, Stanton, McKenzie.

220 Yards.—McKenzie, Stanton, McGlynn.

3B.—100 Yards.—Nicol, Miller, Cousin.

220 Yards.—Smyth, Miller, Paterson.

3C.—100 Yards.—Barlow, Gilbert, Hurkett.

220 Yards.—Barlow, Hurkett, Devine.

3D.—100 Yards.—Newall, Barr, Williams.

220 Yards.—Newall, Barr, Mahoney.

2A.—100 Yards.—Matthews, Sweetland, Bailey.

220 Yards.—Crooks, Matthews, Clark.

2B.—100 Yards.—Lewis, Enemark, Stead.

220 Yards.—Dickey, Lewis, Enemark.

1A.—100 Yards.—Harrison, Kops, Jessep.

220 Yards.—Brown, Harrison, Speechley.

1B.—100 Yards.—Hansom, Sparks, Ball.

220 Yards.—Hansom, Sparks, Davis.

1C.—100 Yards.—Kerr, Gannon, Oliver.

220 Yards.—Hutchison, Kerr, Tester.

1D.—100 Yards.—Mutton, Hodgkinson, Sinclair.

220 Yards.—Sinclair, Hodgkinson, Mutton.

### Obstacle Races.

Senior.—C. Taylor, Ramsay, Waites.

Junior.—Mutton, White, Rose.

Rescue Race.—Campey, Twogood, Locke.

Siamese Race.—Boyle and Hutchison, Flood and Silva, Chapman and Selby.

### Mile Bicycle Handicap.

Thistlethwaite, Gashler, Ibels.

### Half Mile Bicycle Championship.

Spence, Thistlethwaite, Gashler.



### Teams Events.

CLASS RELAYS, 4 men.—3B., 1B., 5A.  
CLASS RELAYS, 10 men.—1D., 1C., 5A.  
TUG-O'-WAR.—4A., 1C.

### Chief Points in Athletic Awards.

#### SENIOR CUP.

Name	Mile	880	440	220	100	Hrs.	Hgh.	Br.	Pl.	Tl.
E. Phelan .. . . .	3	3	3	—	—	1	1	—	—	11
J. Barnard .. . . .	—	—	—	3	3	—	—	—	—	6
J. Plater .. . . .	1	—	1	—	—	—	—	3	—	5

#### JUNIOR MEDAL.

Name	Mile	880	440	220	100	Hrs.	Hgh.	Br.	Pl.	Tl.
C. Tyson .. . . .	—	2	2	2	2	—	2	—	—	10
H. Eilbeck .. . . .	—	—	—	—	—	—	2	3	3	8
W. Egan .. . . .	—	—	—	3	3	—	—	1	—	7

#### JUNIOR CADET MEDAL.

Name	Mile	880	440	220	100	Hrs.	Hgh.	Br.	Pl.	Tl.
L. Mutton .. . . .	—	—	3	3	3	3	3	3	—	18
H. Sparks .. . . .	—	—	2	—	1	—	2	—	—	5
C. Hurley .. . . .	—	—	—	2	—	—	—	2	—	4

The outstanding features of our sports meeting was the ready response of the parents to the appeal for funds, and the enthusiasm of several classes in raising the funds. 4A. and 4B. were most prominent, but all did well, and the fine performances of Phelan, the Cup Winner in the Distance events, the consistency of Tyson, who won the Junior Medal, and the overwhelming win of Mutton in the Junior Cadet Medal Contest. Mutton also won the Victory Cup.

In the C.H.S. Meeting the School was well represented, but as in most years, we met champions, and our boys, with the exception of Mutton and Phelan, are not in champion class. Our Senior Relay Team put up a great run in the final, and was placed second. Our athletes turned out well, and contested every event keenly. The roll up of supporters was much larger than ever before, and they barracked well but ineffectually.

Our Swimming Carnival will be held early in December. It behoves every boy to do his best to make it a success, and to help to get the best available teams for the C.H.S. Carnival a few days later.

### Color Awards.

All boys of League I, Soccer I, and Soccer II are entitled to the premiership date on their blazers.

Athletics.—Barnard, Hore, Phelan.

Swimming.—Stanton.

Cricket.—None.

Rugby League.—Ramsay, Morrow, Taylor, Powys, Laughlin.

Soccer.—Cummings, Young, Twogood.

Tennis.—Campey, Forshaw.

### THE WOLLONGONG VISITS.

This year, in accordance with the usual custom, dash of variety was added to the matches of our Soccer players by the interchange of visits with Wollongong High School. Indeed, we went further and provided a touch of romance, for down in the south, both our teams, by the courtesy of charming teachers, met the young ladies of the Academy at hockey.

The first event was provided by Wollongong making a short stay in Sydney. As consolation for their defeat, they were taken to see the American Fleet put out to sea, and, it may be added, they were not very pleased at the prospect of leaving us.

The School sent two teams away—the "Firsts" and owing to the "Seconds" being otherwise engaged, a B Team was made up of other

members who performed very creditably, despite their lack of practice together. The trip was very fine, and we were taken to see the local High School, whose spacious grounds and tennis courts were all noted and envied. Dinner and tea were provided in good style, that is to say the quality and quantity were excellent. The hospitality of our hosts was boundless, so that all were content, despite the slight inclemency of the elements.

The B Team played first and whilst they went merrily on to victory, the others, in some mysterious manner, smiled upon the maidens, and lo, soon they were engaged at hockey. Then the "Firsts" met, amidst a tremendous and continuous din. One gentleman on the line was extremely enthusiastic, but when we scored quite early his faith was badly shaken. By half-time, however, with Wollongong holding a substantial lead, his spirits were quite restored, even to the point of jocularity. So it must have been a keen disappointment to him and most of the other onlookers when Tech. scored twice in quick succession, at the conclusion of a three all draw.

The most outstanding player for the other side was Gray, the vigorous and elusive centre-forward. On our side Carter, in goal, is to be commended for his performance against far heavier players. Usually a baseballer, on this day he played with both Soccer teams, as our regular goalie was "hors de combat."



Cricket is Here.

"All the rivers run into the sea; yet the sea is not full."—

Eccles. i.: 7.

The murky clouds gather high over the sea:

Pursued by the wind, undefying,  
Defenceless before him in horror they flee,  
Fast land-wards, on phantom-wings flying.

The lightning appears for their aid:

The rage of the storm now disdaining,  
They follow the track that the lightning has made—  
On mountain and meadow 'tis raining!

And tiny streams trickle by serpentine ways

Through ferns and through mosses and grasses;  
They meet; down the mountain a rivulet plays,  
As into the valley it passes,

Low gurgling, in clear, mellow tones,  
A song without pause, without ending—

Unmarr'd by a mortal humanity's moans—

With the birds' liquid melody blending.

The path to the river is rugged and rough;

The mountain-rill longs for the valley,  
Although in the heights are allurements enough  
Enticing it longer to dally:—

The blushes of sunset-lit flowers,

Impassion'd, the brooklet inviting

To linger awhile, with its freshening powers  
The soul of the forest delighting.

Already the track is too long and too slow:

O'er thousands of obstacles bounding,

The rivulet leaps to the river below,

The vale with its laughter resounding.

By zephyrs led forth to the light,

That Earth at those glories may wonder,

It, hesitant, hovers in Heaven's azure height,

Then falls to the river far under.

As the life-giving blood to the man, so the rain

To the earth carries freshness and blessing;

The river flows silently on: a huge vein

To its source again steadily pressing.

With firm, irresistible force,

With faint, imperceptible motion,

It calmly glides on through its widening course,

Till lost in the heart of the ocean.

With endless pulsation—no pause and no rest—

With energy tireless, unceasing,

The life-waters surge through that limitless breast,

Earth's gathered défilement releasing,

Till, drawn by the Sun and the breeze,

By the throb of the billows up-driven,

The vapours *ascend* from the heart of the seas

To circulate over the Heaven.

Vast colours of vapour, unseen by the eye,

Yet weighted by Omniscient measure,

Rise silently, eerily into the sky,

A precious, invisible treasure.

The clouds gather over the sea:

Pursued by the wind, undefying,

Defenceless, in horror before him they flee,

Fast land-wards, on phantom-wings flying.

The writer of the above poem has expressed a wish to remain anonymous. He offers a first, second and third prize to students who send in to the Editor of the "Journal" on or before 1st March, 1926, the most appropriate name for his contribution. Competitors may submit their reasons for their choice of title.

## THE CONSTRUCTION OF THE FRUIT BAT GROUP IN THE AUSTRALIAN MUSEUM.

About three years ago an opportunity occurred to secure sufficient specimens to form a flying fox (*Pteropus poliocephalus*) group. A small colony of flying foxes were roosting in the wishing tree in the Botanical Gardens, and the authorities there, realising what a benefit these specimens might be to the Museum people, immediately notified them, and a collector was sent down to secure some.

These animals were skinned and placed in preservative, and after a time they were suitably mounted and arranged for a group.

Then a "tree" had to be constructed. A party went out into the bush and selected a spotted gum, having a large branch of suitable size and shape. This was felled and the chosen limb, together with a number of small branches, was cut off. These were brought back to the Museum and treated. Plaster of Paris moulds were made of a series of leaves, and thousands of "leaves," consisting of wax and silk, were cast and wired on to the branches, which had, in the meantime, been subjected to a special preserving and seasoning process. The branches were then fitted into the trunk, and the whole laid aside for the next step.

This was the construction of a case. First, the site had to be chosen, and it was then decided, at last, to place it between two pillars in the Mineralogy Department. The frame was built up, consisting of a glass front, with a papier maché background. This introduced the most difficult part of the construction, the background being fashioned with a dome aspect, consisting of a wooden frame covered over with wire netting, and papier maché of a certain texture pressed into it.



Papier maché of a softer texture was then floated over, and well trowelled, to secure a good smooth surface. When this was dry, several coats of shellac were painted over it, and a scene, depicting Glenbrook Creek in the Blue Mountains, was painted over all.

The rockwork, modelled on wire-netting frames covered with papier maché was then constructed and suitably coloured. Ferns and grasses were next submitted to a preserving process and, after colouring, were placed in fissures between the rocks.

Finally, electric light globes were placed in position behind the facial boards and, being tinted, gave the group the appearance of a sunset scene.

The whole, as set out, is a fine example of a camping colony of the flying foxes resting on their marauding travels—for they have no home—and gives to the student a realistic tableau.

For the notes used in preparing this article I am much indebted to the Trustees of the Museum, and particularly to Messrs. W. T. Wells, Curator, H. S. Grant, Taxidermist, and G. C. Clutton, for their kind assistance.

G. SPENCE, 4A.

## THE STORM.

The day had opened with a breathless hush, as of impending disaster. All the birds, animals and plants were in semi-conscious state. The heat was terrific. The evaporation of water was extremely rapid. Heat waves shimmering above the ground gave the impression of delicious cool water.

Towards afternoon a small and insignificant cloud appeared on the Eastern horizon. It gradually grew to fairly large proportions. Then the sun sank in a flaming and angry-looking orb, turning an already too blue sky to a delightful turquoise, the clouds changing to a deep crimson and fading to an exquisite and sombre purple. A slight breeze stirred the trees, the birds twitted restlessly, animals slunk about timidly in apparent dread. The cloud spread rapidly, covering the whole sky. The huge weirdly red-hued cloud presented an awe-inspiring appearance.

Then the cataclysm burst with a blinding flash of lightning and a deafening peal of thunder. The wind roared through the trees, snapping sturdy branches as a child would snap twigs. It seemed as if some gigantic monster was let loose and in a towering rage.

Then the floodgates of heaven seemed to open and rain poured down in torrents, beating all and sundry to the ground before its onslaught. This went on for three hours or more, a continual downpour.

And in the morning! O, what a sight! Gigantic oaks and tall and stately gums, pliant saplings and weedy shrubs, all, yes all! had bowed in humble acquiescence to the monarchs of nature—wind and lightning. Her vivid powers had laid bare many a sturdy tree. Then the wind had taken his toll, every movable object had been moved. A gigantic tank had been lifted and moved twenty yards. Roofs had been wafted about like paper.

Just think how puny are the efforts of mere man against such forces as these. Yet such is but a weak example of Nature's powers. A cyclone, a typhoon, a tidal wave, an earthquake, a violent eruption, any of these would serve to create far more damage than the example given.

G.T., ID.

## EVENING.

In one last glare of flame the setting sun  
Behind the distant mountains in the West  
Retreats, and Night, with fast-descending pall,  
Proclaims to all the time has come for rest.

The darken'd woods give forth few sounds of life;  
The feather'd creatures all have ceas'd to sing,  
The owl, nocturnal, mournfully doth hoot  
And lazily across the dark glades wing.

The leaves are stirr'd by gentle zephyrs cool,  
No boist'rous breezes tear them off and bear  
Them flutt'ring down upon the verdant sward,  
Or whirl them upward through the fresh night air.

The dew has deck'd the flimsy webs with beads  
Of crystal water, glittering like stones  
Of untold worth, and spread the earth with gems  
Unnumber'd, divers colours, sundry tones.

Yon, poiséd o'er this wond'rous fairy-land,  
Both sentinel and lantern o'er the green,  
The agéd moon, a sphere of purest gold,  
Sheds rays of silvery light upon the scene.

J.M.N., 4B.

## A PATTERN SHOP.

Even in a Technical High School it is probable that few realise the importance of the Pattern Shop in the engineering field, perhaps because only a very few exist in the State. In the pattern shop are constructed the wooden patterns that enable the moulder in the foundry to make his impressions in the sand. Every casting, except the very simplest, needs individual attention, both in the pattern making and the moulding. Therefore, the pattern-maker must understand the theoretical and practical aspects of moulding in order to construct a usable pattern, while at the other extreme of his trade is the expert and detailed reading of blue prints. Thus the pattern shop forms a link between the drawing office which designs the article, and the foundry, which produces it.

Consequently, the necessity of constant thought devolves upon the pattern-maker, and the possession of beautiful tools and the aid of a wide experience are indispensable. Pattern-making, from the view-point of the manufacturer, is very expensive, and all the assistance that mechanical devices can render are in service. Glancing along the wall the eye falls on a line of wood-turning lathes, band saws, grindstones of all shapes, circular saws, surfacing machines, and the champion of all, a universal wood-working machine. This is one of several in Sydney, and is capable of roughing out almost any form of pattern, including such difficult forms as gear teeth and worm wheels. The usual speed it runs at is 2700 revs. per minute, while its maximum is 5000 revs.—nearly 84 revolutions per second! At such a high speed the belt flies or pulls away from the pulley. When the machine is cutting, say, a semi-circular depression in a steam pipe

pattern, the wood flies around in a smoke-like cloud; the operator is compelled to wear a pair of goggles, and a mask about his nose and mouth, giving him a remarkable resemblance to the movie bad man. The shrill scream of tearing wood at the same time renders hearing impossible. The sawdust from the machines must be carried away, and to this end an air suction system is employed, and at convenient positions galvanised iron vacuum tubes project from the floor, and hang from the roof, and draw in the particles of wood. A powerful centrifugal fan then sucks it all to an incinerator, which consumes it.

In the particular shop we have in mind a basement accommodates half a dozen further machines, including a mortising and tenoning machine. It is fascinating to watch this small contrivance jabbing away at a piece of hardwood, and eating it out in an incredibly short space of time. And then there is the "thicknessing machine," which, to the accompaniment of high pitched screeching, planes away a thickness of timber, leaving it as smooth as a newly purchased blackboard.

In this basement are stored thousands of patterns, that represent years of labor and an appalling sum of money. Small wonder then a system of patent sprinklers is installed which come into action at the slightest untoward occurrence. Besides this, there are a number of regulation 4in. hoses placed at strategic points. It is an education to walk down this darkened basement and read the little notices along the racks, that maintain order from chaos—"Overhead cranes," "Brasses and Bushes," "Brake Columns," "Crossheads," "Pipe Bends," "Firebars," and so on.

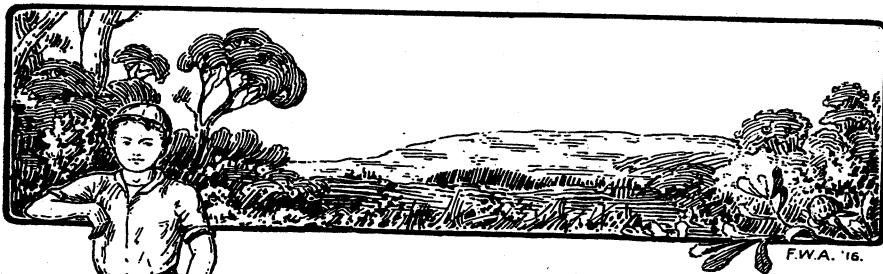
Then there is a special section for core boxes. It is generally understood that to cause a cavity such as the interior of a water pipe to exist in a finished casting, a "core" of sand must be placed in the mould to prevent the molten metal from filling that particular space. To make the various cores, some of which are very complicated, "core boxes" are provided. Even with the aid given by them, core-making is a difficult and specialised section of moulding.

Few commence pattern making unless they are capable of great patience and a critical fastidiousness. Immediately a blue print is handed to a man his brain must determine the method of casting the article; his hand must draw it out in pencil and shape it in wood; then he must bring it to an exceeding smoothness to enable it to draw easily from the sand, and lastly, three coats of dark and one coat of clear varnish must be applied. If the pattern is wrong, the whole of the following operations are seriously handicapped.

The conditions under which the pattern-maker works are favorable compared with those of the fitting and turning shops. The work is light, constantly interesting, and clean—there is a healthy smell of pine, cedar, redwood and teak filling the air throughout the day. The result is seen in the characters and general behaviour of the men. It is useless to deny that the hard and often dangerous work of the fitting shops produces a rough and coarsened atmosphere, which is simply due to the environment. In the pattern shop the mode of thought displayed is vastly different. The men are as urbane and as cultured as the ordinary man in the street. Shakespeare, Burns, and G. B. Shaw and such dissimilar writers are appreciated to a creditable extent, which is sufficiently remarkable. And generally their manners are far superior to those of the men in other shops.

It is said that the spirit of loving cratsmanship is dying out, that commercialism has killed the mechanical Arts, but if anyone should hold this belief let him take a walk through a modern pattern shop, and see the accuracy and beauty of finish, that in spite of machinery, depend ultimately upon the guided hand, and view the lighting, heating, and other domestic comforts, and he must become convinced that the Art of pattern-making, at least, has but entered upon a new era.

UNCLE COCKROACH.



## THE OUTINGS CLUB.

The Outings Club tripped to Tuggerah at Michaelmas.

We took three cottages and made the full ten days' stay. Mr. L. McCurley and C. Clayton, an old boy, joined the party, which totalled 22.

Summed up, we had an excellent time. Everyone enjoyed everything all the time. We had no sickness, very little sunburn and no accidents. By choice the cottages became Fourth Year with Mr. Clayton and Third Year with Mr. McCurley, and First Year with the writer and his assistant. There were no cooking failures this time. Fourth Year's claim to have made the best rice custard is not necessarily right in fact, but it was good; we do, however, grant them the porridge eating championship and the sleep-in record.

We varied our doings considerably as you will see. Sunday the party went to Pebbly Beach via Blue Bay, Chinaman's Bay, Wreck Bay ("The Rozelle" in 1914) and Boat Harbour. Catapult ammunition was obtained. A cricket game ended in disaster, for the writer put a ball through a fibro verandah and it cost quite a lot to fix it up, but we made friends rather than enemies of the old couple, who showed the boys over a very interesting collection of war relics, and, best of all, invited us to come again.

On Monday we went fishing, but were blown off the lake and did not catch any fish. We played baseball as a relaxation and had a fine game.

On Tuesday we again fished with slightly better results—enough for seven—and in the afternoon played Pinehurst tennis. They played three mixed pairs. We played the three teachers and three boys. They defeated us well by 6 sets to 3, and then Mrs. Bateman, of Pinehurst, invited all to tea and we had a musical evening afterwards, from which I managed to drag the party at 11 o'clock. Mrs. Bateman, a splendid hostess, made the whole day and evening a great success. Further, Mr. and Mrs. Bateman gave us carte blanche to the court and billiard table. Messrs. McC. and G.C. made good use of the latter, while the tennis lovers had some very nice games.

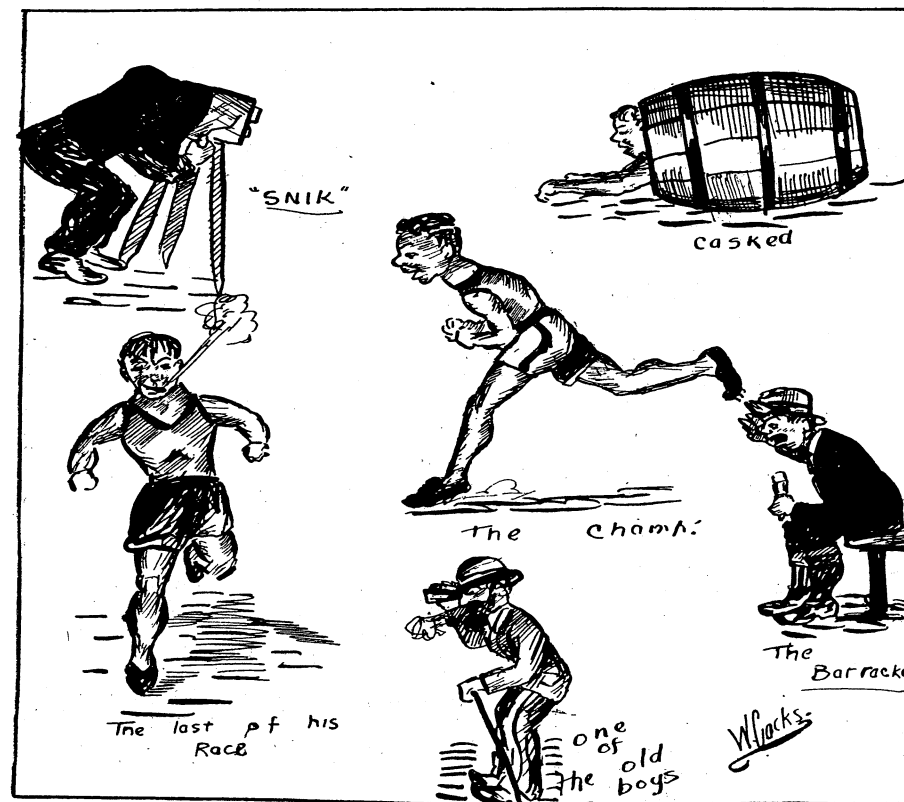
On Wednesday we fished, played baseball and went for a roam in the bush. Out in the bush we fired off the "King's" with catapults. Ray White, of 1D had challenged the writer at School one day. The challenge had been accepted, naturally, by one with trophies of the catapult still in the show case. The first target was a fir cone, and Ray won in

good style; the second target, a bottle, also fell to Ray's unerring pebble; and the third also went in pieces his way; so youth claimed another and decisive victory.

On Thursday we visited Nora Head, a walk of eight miles each way along the beaches. Several did it in record time. All inspected the lighthouse. Mr. Smith, the officer in charge, was most courteous and very painstaking in his explanations. We caught some fish off the rocks, and a few at least made a great struggle back.

Friday was a rest day—and very nice too—though a good game of baseball and a freezing dip did much to enliven everyone.

On Saturday we fished, roamed about and played a soccer match



Impressions of our Sports.

against the locals. The locals were a few short, so we lent them Boyle, Gannon and Sargeant, but they had "Jock" from Glasgow, Petro from Pisa, and others, so made a game. Our team played poorly at times, but won by 4 to 0, though Petro claimed a goal when he tackled Clayton in goal and carried him through by the neck—disallowed. Petro later turned a "sevens" over Mr. Mc's face—worth seeing—neither injured.



"Jock" ran himself to a standstill, and we won. Boyle was the next pick to "Jock" and the goalie (Oyst). We erred in not selecting him for "us."

On Sunday we visited Mosquito Island and did some shooting, when White again distinguished himself. A game of baseball and a swim ended the day.

On Monday we made desperate attempts to catch some fish but failed, and so had to pack up and return. This we did safely but uncomfortably, for the first train had to be let go, and the second was crowded out at Woy Woy.

We had several fine sing-songs, some ping-pong, verandah tennis and five hundred; also, some wasted money going to the pictures, and others wasted time trying to catch jew fish and prawns. A few boys got ticks on them from the bush—they are very bad this year. If you get a tick on you, this is the way to treat it: cut off close to the skin with a sharp scissors or razor, or very sharp knife (do not pull it on any account), and put some turpentine or Condy's crystals on the left-in head. Afterwards pull the head out with a tweezers and put on a little more turps.

In conclusion, we wish to thank Mr. L. McCurley and Mr. Clayton for their very able assistance. We trust they thoroughly enjoyed the outing, and we must congratulate the "Outers" on making a great success of the trip. Boys out for the first time quickly adapted themselves. It was again a great pleasure to have them all with us.

### PICTURES BY WIRELESS.

Pictures sent by wireless have no doubt been a success. A photograph taken in London at 3 o'clock in the afternoon has been published in a New York evening paper one hour later.

This is how it is done. The photograph film is placed inside a glass tube, or cylinder, so as to line the inside. A strong light is placed inside the cylinder. The cylinder is then caused to oscillate, in an "up and down" motion. The light shines on the film in perpendicular lines as if it were a pencil drawing fine parallel lines on top of the picture, 120 lines or more to the inch.

The light passes through the film, and it is light or dark, according to the shade of the picture. These rays fall on an arrangement called a photo-electric cell. Electrical effects are produced more or less strongly in the photo-electric cell as the rays from the light in the cylinder make their way through the picture on the film.

This electrical current is then transmitted by making it operate the ordinary wireless telegraph. The signals are picked up by the receiving station and made to act upon another photo-electric cell, which prints a reproduction of the photograph. The picture forms on paper and is published like an ordinary photograph.

G.T.

### A CHANCE MEETING.

A hard morning's work in my little manufactory had about exhausted me, and a seat in the local park found me dozing in the balmy warmth of the sun. I was suddenly awakened by somebody dropping heavily into the seat beside me, and, looking up languidly, saw an inordinately thin individual fidgeting about. Satisfied with a casual scrutiny, I was dozing off again, when

aroused by a deep, resonant voice abruptly demanding, "You will allow me, but nothing distorts the human face so much as a moustache such as you are wearing. Inimical to beauty. Unnatural."

Somewhat taken aback, I spluttered out, "Dash it all, what do you mean. Your own face——"

"I know, I know," he broke in, "when good fortune comes your way you insult it. In me, my affable stranger, you view a world's benefactor, one whose name shall resound down the ages. In short, sir, I am the inventor of a wonderful hair antidote, a preparation that will effectually prevent the growth of all forms of face fungus." While I gazed mechanically, and grasped my walking stick, his voice took on a sing-song note. "My remedy applied three times daily for a week, with its own weight of water, will completely remove all traces of moustaches, sidelevers, whiskers, beards, 'arf a mo's,' and such like disfigurements. Shaving, that curse of civilisation, will disappear. It is inconceivable that you look upon a moustache as an ornament."

This stirred me. "I'm wasting my time," I said, "but let me tell you that the greatest have set me an example. Stevenson, Cecil Rhodes, Tolstoi, any you care to mention."

"Exactly, but the feminine species is reputed the more beautiful, not because of any advantage in features, but because of the absence of new mown stubble on the countenance. Look at this aspect. Allow five minutes per diem for shaving, and in an average life, three months of night and day are taken up in shaving. Allow a billion people, and there are 250,000,000 years spent each generation in useless toil! What room for scientific research! With my discovery——"

"Is it genuine?"

"Genuine! Genuine? Look at my own head; I am a doctor with myself as patient." He grabbed his hat and waved it in the air, displaying a remarkable imitation of a large billiard ball. "Weary men shall breathe my name in grateful admiration . . . ."

"Here, steady 'on," I interrupted, "you're becoming hysterical."

"Hysterical, and why not! I will be the richest and largest manufacturer that ever paid taxes. You seem a business man yourself. You must have a comradely, friendly feeling——"

"Yes, I am a business man. And confound your infernal impertinence, sir! I manufacture hair restorers."

UNCLE COCKROACH.

# SCHOOL DIRECTORY.

## THE STAFF.

Headmaster: J. A. Williams, B.A.

Deputy-Headmaster: J. W. Mann, B.A., Dip. Ed.

Department of English: J. W. Mann, B.A., Dip. Ed. (Master); S. G. Keys, B.A.; D. H. Berry, B.A.; W. D. Noakes, M.A.; A. M. Hall, B.A., Dip. Ed.

Department of Mathematics: R. Giltinan, B.A. (Master); P. McReady, B.A.; C. P. Schrader, M.A.; D. J. Austin, B.A.; F. V. Teasdale, B.A.

Department of Science: J. Back, B.A., B.Sc. (Syd.), B.Sc. (Oxon.), (Master); W. H. Edmunds, B.A.; A. V. Luke.

Department of Modern Languages: J. G. Belschner (Master), D. J. Sullivan, B.A.; D. Short, B.A.; W. J. Domaille.

Department of Drawing: F. W. Atkins, F.T.C.; J. Nickal, R.B.A.

Department of Manual Work: S. Coulson, Mech. Eng. (Lond.); A. S. Waterer, B.A., Dip. N.U.T., E.H.A. (City Guilds of London).

Physical Training Instructor: R. McCurley, Dip. A.P.C.S.

### Directory of the Union.

President: J. A. Williams, B.A.  
Vice-President: J. W. Mann, B.A., Dip. Ed.

Master in Charge of Journal: S. G. Keys, B.A.

Sports Master: C. P. Schrader, M.A.

Assistant Sports Master and Hon. Secretary: R. McCurley, Dip. A.P.C.S.

Honorary Treasurer: A. V. Luke.  
Members' Representatives: A. Young, W. Egan, C. Taylor, H. Ramsay, C. Tyson.

### Library.

Librarian (Reference Library): W. D. Noakes, M.A.

Assistant Librarians: G. Fraser, E. Riley.

Librarian (Lending Library): D. H. Berry, B.A.

Assistant Librarians: O. Smith, A. Long.

### Debating Societies.

Senior Debating Society—President: A. M. Hall, B.A., Dip. Ed. Hon. Secretary: G. Campey.

Junior Debating Society—President: S. G. Keys, B.A. Hon. Secretary: E. Weeding.

### Officers of Journal.

Patron: J. A. Williams, B.A.  
Master-in-Charge: S. G. Keys, B.A.

Editor: A. H. Young.

Sub-Editors: C. G. Taylor, G. Spence.

Business Manager: N. Cummings.

Assistant Business Managers: E. Riley, G. Mould.

Teachers' Advisory Committee: D. H. Berry, B.A.; P. McReady, B.A.; J. Back, B.A., B.Sc.; J. G. Belschner; F. W. Atkins, F.T.C.; S. Coulson, Mech. Eng. (Lond.).

### Tuck Shop.

Manager: J. Back, B.A., B.Sc.  
Assistants: A. Jones, C. Graham, C. Tyson, O. Robards.

### Radio Club.

Secretary: F. V. Teasdale, B.A.

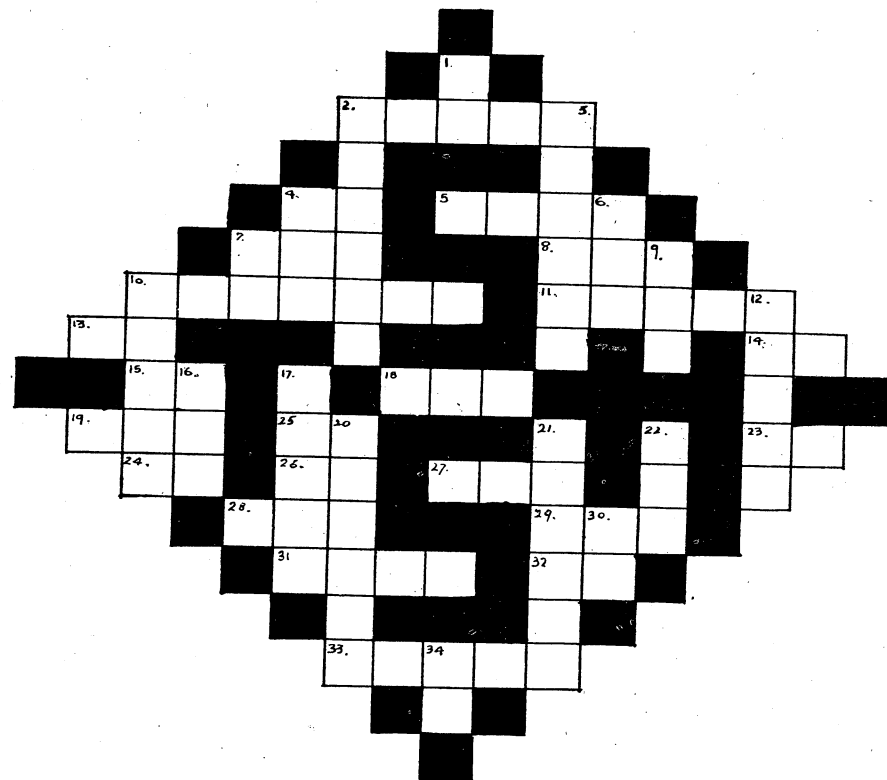
### Prefects, 1925.

A. H. Young (Senior Prefect), K. Salmon, C. Taylor, G. Campey, M. de Plater, E. Powys, W. Egan, H. Ramsay.

### Class Representatives, 1925.

5A—A. Young, C. Taylor.  
5B—W. Weekes, N. Cummings.  
4A—G. Spence, E. Riley.  
4B—G. Edwards, R. Punter.  
3A—J. Brain, G. Laidlaw.  
3B—R. Parker, J. Patterson.  
3C—S. Johnson, H. Thomas.  
3D—E. Weeding, C. Hannah.  
2A—L. Cuff, E. Endicott.  
2B—F. Stead, J. Taplin.  
1A—R. Gibson, N. Bryson.  
1B—J. Coates, C. Daniel.  
1C—R. Vercoe, E. Oliver.  
1D—A. Richmond, E. Sanford.

## Our Cross-word Puzzle.



### HORIZONTAL.

2. A machine for reducing material.
4. Part of verb "to be."
5. Vein of metallic ore.
7. Distress call.
8. A world wide union.
10. Periods of time.
11. Cows.
13. Pronoun (Old English).
14. Pronoun.
15. Person of present tense of verb "to go" (Fr.).
18. What manners make.
19. Beak of a bird.
23. Large river (Italy).
24. Negative.
25. Management of Sports (init.).
26. Government Service (init.).
27. A mother of brutes.
28. A resinous substance (India).
29. Part of verb "to eat."
31. A headland.
32. See!
33. A novelist of repute (Fr.).

### VERTICAL.

1. Conjunction (Fr.).
2. A doctrine inculcated.
3. Finishing.
4. Sydney's industries (inits.).
6. A female quadruped.
7. An Australian State (init.).
9. A merry fellow.
10. A number.
12. A building (plur.).
16. First inhabitants of a country (abbrev.).
17. To varnish work.
20. To climb up.
21. Brand of confectionery.
22. To strike with fear.
30. Denoting the infinitive.
34. Fashionable in old days (male).

A. J. MEAD, 3A.

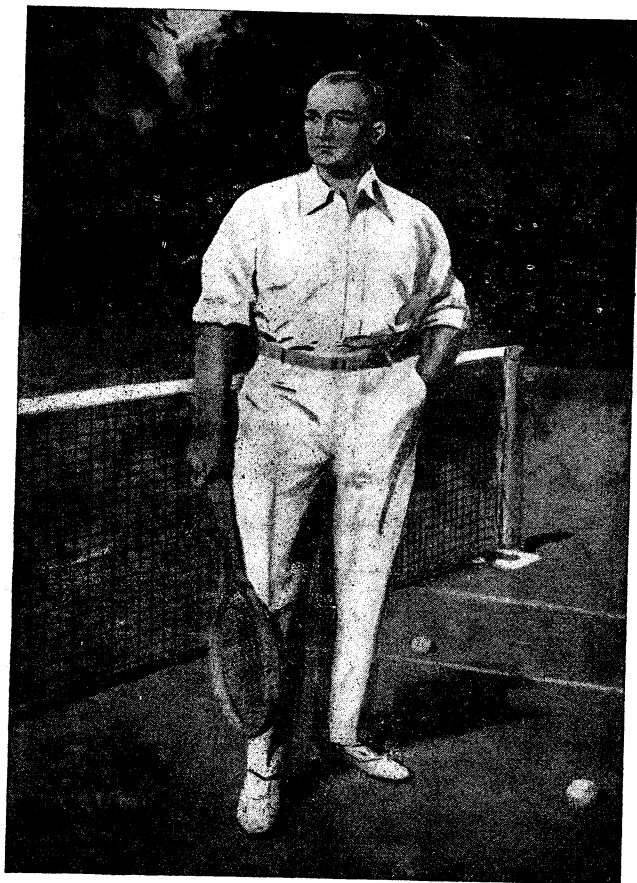
See particulars in connection with the competition in School Notes.

# J. PEARSON

21 SYDNEY ARCADE

AND

114 KING STREET.



## Tennis Trousers—

Cotton Gabardine	15/-
Serge ... ..	28/6
Wool Gabardine	37/6
Wool Serge ... ..	33/6
Wool Gabardine	42/-
Melton (to measure)	63/-

## Tennis Shirts

Oxford ... ..	7/6
Winsey ... ..	8/6
Twill ... ..	8/6
Poplin ... ..	12/6

## Bathing Costumes—

Cotton ... ..	4/6
Cashmere ... ..	12/6
Cashmere— (with Skirt) ... ..	14/6
Wool ... ..	12/6
Wool (with Skirt)	17/6

T H.S. BLAZERS, 41/-  
TO MEASURE.

Telephone: City 3108.



**Marcus Clark & Co., Ltd.**

Central Square, Sydney.

We can supply everything for your  
home or personal needs, for cash or  
easy terms.

Catalogues from all departments sent  
on application.

If you send your address our repre-  
sentative will call.