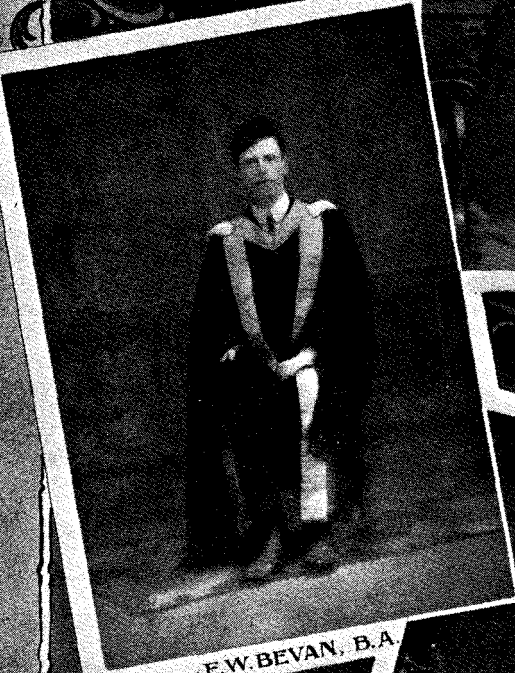


**"C. I.
GRADUATES"**



J.F. FORD, B.Sc.



F.W. BEVAN, B.A.

1912



F.J. TINDALL, B.ENG.

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EDITOR, R. B. CUNNINGHAM.

SUB-EDITOR, J. HALL.

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EDITORIAL.

We offer our hearty con-
BRavo! gratulations to all our
"Past" at the Varsity who
have achieved such signal honours at
their respective Exams. in the faculties
of Science, Arts, Engineering, and
Dentistry; but there is one whose
success we hail with very special accla-
mation—The Rev. P. Meier, who has
obtained the degree of B.Sc. Father
Meier has always shown such a deep
and practical interest in C.Is. past and
present, and has supported us loyally
and so consistently at all times, in
adversity no less than in prosperity,
that his success is especially gratifying
to us. To Mr. T. J. Curtin B.A., we
also offer our special felicitations.

Among the prominent
LIGHT characteristics of this lower
AND orb which we inhabit there
SHADE. is none more striking than
its universal ruggedness.
Wherever we turn, an infinite variety of
of curves and slopes meets our gaze and
we fail to discover that Euclidean plane
wherein we may trace a path devoid of
declivities. The C.I.M. is no exception
to the universal rule, and, consequently,
our worthy colleague who took the
finances of the Magazine under his
protecting ægis at the commencement

of the Session found that his path
occasionally traversed deep valleys where
the sunshine of co-operation rarely cast
its saving beams, and at other times it
mounted unexpected heights and led
him into regions of phenomenal aridity,
but his unremitting assiduity conquered
all difficulties.

We have again to crave
MERCI! the indulgence of those
DE TROP. contributors whom want
of space forbids us to
accommodate in this issue. Since their
philosophy is no function of time their
esteemed contributions will be appre-
ciated in next issue when we shall assign
them a prominent place in our literary
gallery.

Another phase in the
DANKE swift-recurring cycle of
SEHR! our Magazine is completed
ADIEU. with the present issue,
which registers our con-
cluding effort to maintain the dignity of
the office which we have endeavoured
to fill during the Session now quickly
passing into the domain of history.
Before vacating the Editorial Chair and
withdrawing into that journalistic ob-
livion which a fickle future probably
reserves for us we would like to express
our sincere gratitude to all those whose
generosity, blended with a genuine
esprit de corps, continually replenished our
editorial coffers with plenty of "Copy."

School Notes.

Lecture on the Motor Car.

On Wednesday, March 27th, Mr. F. J. Tindall gave the Seniors a very interesting lecture on "The Motor Car." On opening, he pointed out that the motion was not due to electricity as many people supposed, but to the combustion of a mixture of petrol vapour with air. He then gave us a description of the cylinder, and by the aid of a model the lecturer showed us how the vertical motion, produced by combustion, was converted into circular motion, which was transmitted by cogged wheels to the driving wheels of the car. He next showed how there were two complete circular movements for every combustion, since it is necessary to expel the burnt products from the cylinder, and to admit and compress a fresh charge of explosive mixture before another explosion can take place in order to clear the engines of the gases of combustion. He then explained, by means of diagrams which he had drawn, the ingenious method by which the valves were opened to admit petrol and air into the cylinder, and how by means of a cam the petrol and air were exploded by an electric spark, obtained from an induction coil, and finally, how after the exhaust valves had let out their gases of combustion, the process started over again. This done, the lecturer proceeded to describe to us what he called the minor essential parts, which included, among other things, the mechanism of the three-speed gear, and of the brakes, and the differential gear, which enables the car to take corners with ease and safety, and then concluded a very interesting discourse by describing the silencer.

After R. Cunningham had proposed a vote of thanks, which was ably seconded by J. Fletcher, the boys separated, to dream about motor-cars and silencers during the Easter holidays.

Inter-Class Debates.

On Tuesday, March 26th, the first inter-class debate took place. The subject chosen was "Were the people of the Middle Ages happier than those of the present day?"

B. Merron (Va) was the leader for the affirmative, and after dealing with

the condition of the people of the present time, he showed how their griefs begin in the cradle and end in the grave, and how man's curiosity had given him, to his sorrow, that knowledge, the ignorance of which could not but leave his forefathers in a blissful state. Rampant Materialism had killed all the higher ideals and an intensified Commercialism was fast blotting out the last trace of peace and happiness. In the face of such facts, he added, one could not say that man's lot was a happy one. He spoilt an otherwise splendid speech by referring too frequently to his notes.

R. Cunningham speaking for (VIa) pointed out how the people of the Middle Ages were unblest by just laws, unvisited by art, and strangers to the graces of a peaceful and cultivated people. How disease was more prevalent than to-day, and how the ignorance of the doctors caused even more deaths than the disease itself. He ended by quoting a passage from Macaulay dealing with this subject.

Messrs. Brown, Gray, Supple, and Dyson, spoke for (Va), and Messrs. O'Donnell, Gavin, and Hall for (VIa), and, although sometimes "so much they talked, so little they said" that at times we were sinking into that ethereal blissfulness which we know rewards only the just, yet on the whole the speaking was good and after much discussion the chairman bestowed the laurels of victory on the Juniors.

Having won the first debate (Va) had to meet (VIb). The former having the choice, determined to say that

"There is something radically wrong with the present day system of education." The same speakers were prominent, although by most of them education was not treated in the wider sense. The leader for the opposition, M. O'Callaghan far surpassed the others of his class in eloquence, and in clear and well reasoned argument. He justly received the vociferous applause of the "listening senates" when he very adroitly seized upon an unguarded phrase in B. Merron's speech. J. Brown was perhaps the best speaker for (Va), and we regretted that the time limit switched him off from us just when he was most interesting. With the exception of the leaders, the speakers of the lower Form were far superior to their opponents, and hence (Va) were unanimously declared the victors.

Scholarship.

The members of IVa have the honor of a representative on the list of Open Junior Exhibitions this year in the person of T. Smith whom we very heartily congratulate on his success. These Scholarships are awarded to pupils between 12 and 14 years of age and entitle them to free tuition at a recognized Secondary School for a period of 4 or more years, together with a money grant to cover the expenses of travelling and school books. There were 444 candidates and of these T. Smith succeeded in getting 3rd place—a very creditable performance. We wish him equal success when he sits for the Senior Exhibitions.

“Matthew Arnold.”

BY D. J. GAVIN.

The reputation of Matthew Arnold is founded on two bases, his poetry and his prose. Besides his poetry, his criticism, and his essays, his labours as Government Inspector of Schools gave a great impetus to education, and cannot be rated too highly. But it was his poetry, in which he took up the cause of “light and sweetness” against “British Philistinism,” which stamped him as one of the greatest intellectual forces of his century. He was the eldest son of Dr. Arnold, headmaster of Rugby, and was born in 1822. He was educated at Winchester and Rugby, and the influence exercised on him by the strict, well-disciplined life in his father's school, caused him to adhere to such an extent to legal principles in his poems and criticisms. He went to Oxford in 1842, and it was here he commenced the life-long friendship with Arthur Clough. Under the spell of this friendship, Arnold was seized with a love of Oxford, which he describes as

“That sweet city of dreaming spires.”

In the ‘early forties’ the Oxford movement left him in a state of doubt as to the truth of his beliefs, and eventually, he abandoned religious doctrines, but not the love of the classics, which his father had inculcated in him at Rugby.

From this onward his mind was torn by a regret for the old beliefs which had passed, and a desire for new and high ideals. It was while he was in this state of mind that the classics afforded

him subjects for contemplation and inspiration, and thus we find in his works a combination of the classical and modern English ideals, such as no other writer has yet equalled.

From 1851 almost to the end of his life, he was an “Inspector of Schools,” and while labouring in this capacity he acquired the habit of thinking and acting according to rule. The natural result of this was that the sentiments of his poetry were confined within certain limits, and in the end he gave up verse and devoted his time to prose.

His earlier poems are by far the best, and in some, such as “The Scholar Gipsy” and “Empedocles,” he typifies himself and expresses his yearning for that higher ideal of which he dreamt. In the “Scholar Gipsy” he writes:—

“Thou waitest for the spark from heaven!
and we,

Light half-believers of our casual creeds,
Who never deeply felt nor clearly will’d,
Whose insight never has borne fruit in deeds,
Who hesitate and falter life away
And lose to-morrow the ground won to-day.
Ah! do not we, wanderer, await it too?”

Arnold, like his “Empedocles,” had that strange antithetical mixture in his character, the poet's desire for direct intercourse with beautiful things, and the intellectual pride which seeks to question, and pull asunder, every human doctrine. It is no wonder then that he was often a victim to melancholy and despair, and this must have influenced him in his warning to the “Scholar Gipsy.”

“But fly our paths, our feverish contact
fly!

For strong the infection of our mental
strife,
Which though it gives no bliss, yet spoils
for rest.”

But this despair and melancholy has ennobled his character for, instead of allowing them to master him, he regarded them as obstacles to be overcome. Thus in his poems, we find him breaking out into sentiments bordering on despair, and immediately afterwards bursting out into exclamations of hope, as in “Thyrsis”:—

“Too quick despairer wherefore wilt thou
go?

Soon will the high mid-summer poms
come on,

Soon will the musk carnations break and
swell,

Soon will we have gold-dusted snapdragon,
Sweet-William with its homely cottage
smell,

And stocks in fragrant blow.”

And again he exclaims:—

"He hearkens not, light comer, he has flown!

What matters it! next year he will return,
And we shall have him in the sweet spring days."

On the death of Clough in 1861 he wrote a poem, "Thyrsis," to commemorate his memory. The poem is practically a long description of his loneliness, in which he shows the depth of the friendship which had sprung up between himself and Clough. Looking back on their days at Oxford he exclaims

"See, 'tis no foot of unfamiliar men
To-night from Oxford up your pathway
strays;

Here came I often, often, in old days,
Thyrsis and I; we still had Thyrsis then."

One of the principal features of his poems is his descriptive powers of nature, which he learnt, unlike Milton and other poets, from studying nature herself. Hence in his poems we find many beautiful passages, describing country scenes, as in the "Scholar Gipsy" he writes

"Screen'd in this nook o'er the high, half-
reaped field

And here till sun-down, Shepherd, will I be.
Through the thick corn, the scarlet poppies
peep

And round green roots and yellowing
stalks I see

Pale blue convolvulus in tendrils creep:
And air swept lindens yield

Their scent, and rustle down their perfumed
showers

Of bloom on the bent grass where I am laid,
And bower me from the August sun with
shade;

And the eye travels down to Oxford's
towers."

Matthew Arnold is a poet whose genius is acted on by classical education. There is hardly one of his poems into which classical influence does not enter. In the "Scholar Gipsy" and "Thyrsis" we have the distinctiveness and the flashes of colour, characteristic of the classical literature, while the austere tone, the meditative spirit of the poems, and the harmony which exists between the sentiments of man, and the description of nature, are characteristic of Wordsworth. He therefore combined the influence of Wordsworth with the spirit of the classical, to introduce an entirely new kind of poetry.

Matthew Arnold is a poet whose works are at once instructive and interesting. The beauty of his lyrical poems, such as "Requiescat," is only equalled by his powers of self-constraint.

He does not excite his readers by the passionate outbursts of Byron, but notwithstanding there is a tinge of passion underlying many of his poems, but it is passion covered up, as if it were something ill-becoming a poet. There is balance and proportion in his best works such as few other English poets attained. True it is that in parts his meanings are deep and subtle, but it is the work of the poet to leave something to the intelligence of the reader. As a poet he had an influence which has left traces on subsequent verse, but it is yet too early to say how posterity will rank Matthew Arnold, whom very many have read with delight both in his poems and essays.

The Bull Fight.

BY MR. D. HAYES.

The merits and demerits of the Bull-fight have formed a theme for conversation in every civilized land. In our own country, where love of Sport is one of the characteristics of the true Britisher, a full mead of censure and condemnation has been passed on Spain's National Sport. With that delightful inconsistency, however, which is another of their characteristics, very few visit Spain's beautiful shores, without making a beeline for the Bull-Ring.

Last July found me in Valencia. Celebrations in honour of the feast of St. James—the patron of Spain—were being held, and a series of bull fights occupied first place on the programme. Needless to say I was there. I had promised my Liverpool friends that nothing in the wide-world would draw me to a bull fight in *Barcelona*. I kept my promise, and satisfied my conscience, by visiting one at *Valencia* instead. However that's just by the way.

Tickets were purchased for six pesetas—about 4/6 in English money. Armed with these, some iced fruit, and a half-penny fan, rendered necessary by the terrible heat, which in the shade showed the warm figure of 105°F, we mounted to our seats on the "sombre" side of the bull-ring. I might here mention, that the "Place de Torres" or bull-ring, is divided into two parts "sol" and "sombre" or sunny and shady sides; the latter of course being the more expensive. These again are sub-divided into tiers, which vary in price, according

to their elevation. The rings are built on the plan of the old Roman Colosseum, and in the larger towns are capable of holding twelve to fifteen thousand people.

By 4 o'clock the arena was half filled. The fights usually commence about 4-30 p.m., when the glare and heat of the day have waned somewhat. For half-an-hour I gave myself up to watching the scene before me—one so typically Spanish. The life and animation; the talking and gesticulation and the kaleidoscope of colour were bewildering to one, whose lot had been thrown among the phlegmatic foreigners, and under the dull skies of the north. The orchestra treated us to some stirring music, and beneath a canopy of deepest blue, such as only the Mediterranean can produce, life seemed at its very best.

At the ordinary fights the number of bulls dispatched is six. Each bull usually occupies the ring for twenty minutes, so that the whole performance terminates somewhere about 6-30 p.m. The matadors numbering three appear in rotation, and having completed their business, and the bull's existence at the same time, retire to the side of the ring to watch their rivals.

At 4-30 the gates were thrown open to admit the procession of matadors, toredors, and picadors, who advanced across the ring to salute the President of the assembly. The matador is *the* real bull-fighter. On this occasion there were three; Fuentes, Flores, and Gallito. I was fortunate in seeing the first-named, as he possesses the reputation of being one of Spain's foremost matadors. Their position while containing many elements of danger, is by no means a precarious one, seeing that an afternoon's business will afford them anything from £300 to £500.

After having saluted the President and having marched round the ring to the applause of the spectators, each one moves to his appointed position. At the same moment, the bull,—a magnificent specimen of its kind—rushes into the ring. For a moment it stands irresolute, frightened by its strange surroundings, and dazzled by the glare of the sun. It is only for a moment however, then catching sight of the red cape of the toredor it makes a mad rush to toss the offending article in the air. In this needless to say, it is unsuccessful, and the four toredors stationing themselves round the ring,

and swinging their capes about them soon have the poor animal reduced to a state of terror and fury.

In the meantime the picadors, mounted on horses,—the most sorry spectacle of horse-flesh I ever saw,—take up their respective positions round the bull. They are armed with long lances, and it is their duty to protect the horses from the onslaught of the bull. In this direction their efforts were nearly always futile. Of the twenty-four horses that entered the arena that afternoon, two only, "lived to fight another day," the others were disgustingly mutilated.

The toredors having retired for a moment, the bull suddenly catches sight of the horse, on which it can ventilate its rage, and with head lowered, rushes on the poor animal. The horse whose "near" eye is bandaged to prevent its seeing its assailant is spurred on to meet the attack. The bull however is quicker, and in a moment horse and rider are lifted clean into the air on those huge shoulders. Here is something, at last, on which the bull can vent its anger, and the horse is soon reduced to a sickening sight. The picador whose body is encased in steel, lies helpless on the ground, till assisted to his feet by one or two of the general men about the ring. During one of these charges the impact was so terrific, that the man was hurled over the barrier into the audience.

This is decidedly the worst part of a bull-fight, and after seeing two or three such exhibitions I turned away in disgust. What surprised me most of all, was the nonchalant attitude of the women and children, who appeared to regard it all as very entertaining. I thought of the football matches at home, and mentally contrasted these respective sports.

The horses having been all "laid out" in the true sense of the word, the turn of the toredors arrived. Their part was decidedly cleverer and cleaner than the previous one, although it consisted in their sticking into the bull's neck, and in a particular way too, their darts, about two feet long covered with gaudy ribbons. The poor bull is reduced to a terrible state. Its flanks heaving with excitement, its head and neck running blood, it now and again raises its huge head to bellow forth another challenge to its human antagonist.

Finally the matador enters the ring alone. He first makes a speech to the President, and sometimes, if a popular

man, favours the "gods" with one, then throwing his cap in a peculiar way over his shoulder, and taking his red rag and sharp keen sword makes for the centre of the ring. There is no doubt about the fact, that he is a man of iron nerve, and plays his part in a way that must command the admiration of even his severest critic. What struck me most of all during the afternoon, was the entire disregard of the man, by the bull as compared with the attention paid to the red cape. It was the latter article which from first to last claimed the whole attention of the animal. In one or two cases, notably Fuentes, I saw him bring the bull to within a foot or two of himself, and then suddenly putting the rag behind his back, patted the infuriated animal on the head, whose mad onrush was arrested by the sudden disappearance of the cape.

To me it was all very extraordinary and bewildering. With my eyes glued on the arena, I could hardly follow the rapid movements of man and beast, the latter going from right to left, and from left to right of the matador, at times almost on top, at times chasing him, always intent however on tossing and tearing the red cape to pieces. And now comes the critical moment. The bull is thoroughly tired out, and the matador goes forward with sword in hand to take up his correct position for killing the bull. He brings the latter to within a few inches of his cape, and runs his eye along the sword so that it faces the exact spot he requires,—just above the heart. He then suddenly drops the flag with his left hand causing the bull's head to be momentarily lowered in consequence, and at the same time drives home the sword to the hilt, in the bull's heart, and leaps aside. The whole thing hardly occupies a second, and should the thrust be a good one, the bull drops dead at his feet. It must not be imagined that this is always accomplished first time: that rarely happens. On the afternoon that I was present, a single stroke did not suffice, and the performance had to be repeated. In one instance, the bull by jerking its shoulders, sent the sword flying amongst the audience, and in another case they had to stab the bull behind the ears; although this is usually considered bad form,—quite a foul in fact,—and one of my Spanish neighbours to shew his disgust gave vent to "*Ora Pro Nobis*" in about ten different keys.

The bull having been killed, and dragged out of the ring by six horses, the matador dances round before the audience waving his hands and bowing his thanks to their crazy applause. Cigars, hats, and even jewellery are showered upon him, all of which he acknowledges with becoming Spanish courtesy. With a fine sense of judgment he hurls the hats back—generally to the wrong people, while the cigars and other perquisites are pocketed by his attendant who follows for that purpose.

Requiring my hat for better purposes, and not being familiar with the Spanish for Hurrah! I contented myself with merely clapping my hands in approved English fashion.

As I left the ring the matadors were being carried off shoulder high, and Spain's youth in the guise of embryonic bullfighters, was organising a fight on its own behalf with the aid of a few dirty pocket-handkerchiefs and ferocious expressions that would have frightened any bull.

So ended my first, and I think my last Bull-Fight.

In the Jaws of a Hurricane.

The regiment to which I belonged was being conveyed from Rangoon to Madras in two vessels—a steamer and a sailing ship, the first towing the second. As my lot fell to the sailing vessel, I will deal with it only. For two days all went well with us, but on the morning of the third day a change began to show itself in the aspects of sea and sky. A curious grey gloom spread itself quickly over the circle of the ocean; everything became the same colour; there was little or no wind, but the still, unbroken surface heaved a little. This undulation grew more perceptible as the morning passed, until it began to lift our ship uneasily, and made her rise and fall upon the towline. The barometer began to fall. Whatever it was, we appeared to be going to meet it, and it seemed that it was coming to meet us also. Our captain was a rather elderly man of the Indian Marine Service, and he appeared to be suffering from marked depression of spirits, which one of the junior officers explained was the result of the death of a brother, who had been drowned a couple of weeks earlier in the Rangoon River through the upsetting of

his boat as he was proceeding from the shore to his ship lying in the river. During the two days we had been on board he had kept to his cabin, and had not taken his meals with us in the saloon. The second officer, a gentleman named Salmon, impressed us all as being the moving and governing spirit of the ship's company. These latter were all Lascars from the Chittagong side of the Bay of Bengal. They were a poor lot, but, so far, there was little or no occasion for their services on the deck or aloft, nor did it seem likely that there would be any; all the sails were furled. The chain cable had been left in great coils along the deck, for the run across the Bay of Madras in the wake of the steamer even at the slow rate of towing was not expected to occupy more the five or six days. The *Tubalcain*, as our ship was named, was an old and cranky craft, half transport, half warship. She mounted a couple of guns on the main deck. The strong suns of the Bay of Bengal and the Persian Gulf had not improved the seaworthiness of her timbers.

At the head of the native crew there was a powerful and masterful looking 'Syrang,' or mate of Lascars, in whom both European officers and Indian crew seemed to have complete confidence.

We passed the Cocos Channel between Burmah and the Andaman Islands, and were now well into the centre of the Bay of Bengal. Suddenly the gloomy murkiness of the sea and sky became lit to the westward with vivid lightnings, and the rumbles of an incessant thunder struck the ear; there was still hardly any wind, but hot puffs of storm came at intervals from ahead, ceasing as quickly as they arose. Then all at once a storm began and a vast commotion manifested itself among the crew on deck. The motion of the ship on the towline had become more and more uneasy as the sea arose. All at once a big wave sprang like a panther on the bows of the *Tubalcain*, scattered the Lascars that were on the fore-castle and jumped again into the sea carrying with it our splendid Syrang. He swam bravely, and as he passed beneath the stern of the ship he caught at the log-line that was hanging from it, trailing in the wake of the vessel; but the rate at which we were being towed, slow though it was, was too fast for the man to let him get a firm grip on the thin line, and

it ran through his fingers to the end where the patent brass log was twirling like a fishing minnow; that, of course, was impossible to hold, and we saw the poor fellow still swimming bravely on the top of the waves behind us. There was a shout to cut the tow-line, but that could not be done without orders from the steamer, which all this time had been tugging us into the jaws of a hurricane, for that was what all this strange turmoil and thunder and gloom of the afternoon had really meant.

The captain of the steamer seemed now to realise what he was in for, for he shouted through a megaphone, "I am throwing off the hawser," and in a couple of minutes more we were separated from him. I shall never forget the look of things that evening when we found ourselves left alone in that deepening light and rising hurricane, as we saw our hitherto guide and leader steaming off into the black gloom of the coming night. There was a great deal of confusion for a moment but the best men stepped instinctively to the front and discipline soon reasserted itself. It had all happened so suddenly that it was inevitable the parting of the ways should have found us unprepared. The second officer was however master of the situation. The first thing he had to do was to restore confidence among the Lascars, shaken as they were by the recent loss of their leader. Fortunately we were as yet only on the outer edge of the main whirlwind, that still lay to the westward, and the lightning and thunder were all ahead of us. Four of the strongest of the Lascars were now lashed to the tiller, a few sails were set on the lower yards and booms, the decks were cleared of some of the loose rubbish that encumbered them, and a course was laid which gave the ship greater ease in the now boiling cross-seas that were showing themselves.

When night closed we were running towards the North West, amid a rapid alteration of blinding flashes of lightning and inky darkness. The hatches of the lower decks had all been battened down upon the soldiers and the women and children, the dead lights fastened and only the reefed fore-sail and some other light fore-and-aft canvas set. The barometer was still falling. A couple of hours later the full crash of the hurricane came. No one can ever describe such a scene accurately. There are

things in it that when put into words are bound to appear exaggerations. There is no sea, and no sky, and no air, they have all become one vast, black, solid, gigantic, animal, compared to which the lion is a lamb, the whale a minnow, the biggest cannon a child's pop-gun. There is no sea running as in an ordinary storm; beneath this awful wind the sea crouches for a time, like a lashed hound, and that is exactly what it is. It cannot get up and run before that vast wall of wind. It lies down at first, and the wind mows it like grass, sheaves it off in swathes of white foam which are caught up into the rushing wind itself, so that no eye can open against it, and no face can face its saltiness. But the roar is what lives longest in memory: it seems to swallow even the thunder, as though that too like the sea, had been brayed into it.

As the night wore on the damage grew; there was no attempt made to take in sail, and one by one they were blown away into the night. The ship then was put before the wind, and we ran as the hurricane listed. Fortunately, there was sea room on every side. At times we seemed to get thrown into the trough of the seas. No man could stand on the poop deck, and on the quarter-deck the rolling of the vessel set the guns free from their lashings, and caused them to go rolling from one side of the deck to the other, until they broke through the bulwarks and shot out into the sea. The chain cable also got adrift on the deck, and began to roll its immense links from side to side as the ship lurched to and fro. The watch could not live in the deck; they were brought into the saloon, where they lay on the floor so beaten that we could walk over their bodies. Our boats, too, were torn from their davits, one wave carrying away the long-boat and some live-stock that we penned within it. Towards morning the upper foremast went with a great crash, and the wreck of it could not be cleared. Just before daybreak some one discovered that the barometer had lifted a shade above the extraordinary depth to which it had fallen. This news infused life and vigour into many, who amid those long continued crashes and disasters had begun to give up hope, and had made up their minds that the ship must founder. The unfortunate captain had shut himself up in his cabin, the Lascar crew were com-

pletely demoralized, half of us landmen were lying in the most exhausting pangs of sea-sickness, and the ship herself was only a floating wreck—boats, yards, gone: booms broken, guns disappeared. When daylight came it was seen that the hurricane was going down as quickly as it had arisen. There was one man who had fought the elements undauntedly throughout the long night, Salmon, the second officer. He had lashed himself securely to the mizen-mast before the worst came and from there he called his orders to the steersmen. Undoubtedly he had saved the ship.

A dead calm succeeded the rage of the storm, the sun came up bright in the east. Away to the North-West we could still see the retreating hurricane. We were about 150 miles out of our course, a dismantled wreck on the heaving ocean. . . . A week later we crept into Madras; the steamer had arrived four days earlier and had given such a bad report of the chances of the *Tubalcain* that we were given up as lost.

(From "*An Autobiography*" by Lieut-General Sir W. F. Butler. Published by Constable, London.)

The Annual Sports.

After two terms whose monotony was broken only by the very brief Shield contest we looked forward with eager expectations to the most popular item on the school calendar, namely, our Annual Sports. There is, even in the dulltest seasons, quite a surplus of outlets at the C.I. for every form of energy, but nevertheless most of us had stored up quite a considerable stock of that special type of energy, which is requisitioned only on high festivals, and we gladly resolved to utilize this in promoting the success of the only remaining function of the session and the one too whose success or failure lies mainly in our own hands. It was not surprising therefore to find that the announcement of the Sports was hailed with delight by the whole school, and that assured of the hearty co-operation of the masters and stimulated by the fine example of our indefatigable Sports Secretary, there were forthcoming on all sides evidences of the desire to make the 1912 Sports a record event.

The large number of entries for the Sports will perhaps be the most tangible proof of the earnestness with which the

"C.I.
CHAMPIONS"



V. OCCLESHAW.
100 YDS. CHAMPION.



J. GIBB
QUARTER MILE CHAMPION.

1912.

organization of the Sports proceeded, and when we contrast the few small sections that failed to give their support in this instance as they have failed in every other instance, with those Forms in which every member entered, we have additional evidence of almost universal enthusiasm. The request for Prizes also met with a most generous response. Names that have long since grown familiar to us through our Annual lists of Prize givers were prominent this year too, and their number was considerably augmented, so that the Prizes and donations received are much in excess of last year. It was but reasonable therefore that we should feel quite assured of the success of our Sports, and though the fine display of beautiful and valuable prizes may have intensified the disappointment of many of us whom the preliminary heats relegated to the catalogue of non-contestants, we nevertheless rejoiced in the anticipation of a Sports day which would at least equal and perhaps excel the best of previous years. We therefore anxiously awaited the coming of Saturday, June 8th, when we should see our hopes realized at the Tramways Athletic Grounds.

So far we had basked in the sunshine of success, and like most people who are fired with genuine enthusiasm we found it difficult if not impossible to realize the existence of an insuperable obstacle, and adversity had for the moment quite vanished from our mental vision. In such dispositions we little heeded the very gloomy morning of the Sports day: we scarcely thought about the weather. Huge Bootle soot packs drifting slowly eastwards are so familiar to us that we have learned to accept their presence as an unavoidable nuisance: their departure would herald glorious sunshine. In short, we tacitly assumed that our enthusiastic preparations had more than earned a favorable afternoon, and we felt convinced that the Clerk would not so outrage every tenet of good sportsmanship, and show himself so utterly devoid of the very elements of generosity, as to withhold from us the smiling features of Old Sol on that all-important occasion.

Noon came, and we were still enveloped in a sooty pall, which shewed little inclination to depart. We journeyed to the Athletic Grounds quite confident that things would grow brighter as we got away from Smokedom, and on our arrival there we were cheered by a

brief interval of sunshine which filled us with hope, because at this period the universal topic had momentarily usurped the premier position in our minds. We had scarcely time to congratulate one another on the welcome change in climatic conditions, when a significant rumble in the distance brought us new sources of anxiety, and thus in the brief interval of waiting we suffered from a very acute type of weatheritis—a most exasperating affliction.

The prattle of a band of eager athletes in front of the rapidly filling Stands somewhat restored our equanimity, and the posting of Event I. on the telegraph completely withdrew our minds from further weather prognostications. In a few moments the first group of Athletes were at their marks, and in reply to a query from a bystander who had not yet got possession of a programme we vouchsafed the information that they were our “under 13s.” The conventional “Thank you” was supplemented by the remark that the arrangement of the Events was at least quite unorthodox, and it was even suggested that in consequence matters were sure to go amiss. The report of the starter’s pistol obviated a controversy with the pessimist, and now the Sports claimed all our attention. The “under 13s” gave a good display of running, and the succeeding events were equally interesting. The 100 yds. championship which was won by V. Occleshaw in 10½ secs. with Marshall and Cunningham a yard behind was deservedly acclaimed, and so interested were we in the Tug-of-War which followed, especially in the pull between IIIa & VIa that we scarcely heeded the rain which had already come to mar the proceedings, and eventually to send us home sad and disappointed. At the conclusion of this event it was deemed advisable to stay the proceedings in the hope that the interruption would be only temporary, but the downpour continued and after waiting for a considerable time it was evident that the Sports could not be proceeded with, and therefore it was decided to postpone them to another occasion. We hastened to the Marquee, but neither lemonade nor “the cup that cheers” brought any consolation, and when we saw the Band retreating gatewards without having played a single note we were almost convinced that our experiences that afternoon had been on the very borderland of tragedy.

The fine Sunday was no consolation, but rather the opposite, and on Monday we felt inclined to be desperate till a rather copious downpour about 10 a.m., when we were safe in class, made us humbly fearful for the afternoon. We were very grateful for an agreeable change for the better, which was evident an hour later, and especially when the result of a most learned deliberation by our pro-tem meteorological staff, based on weather and other observations made at various times during the morning, was entirely in favour of proceeding with the Sports that afternoon. We therefore journeyed once more to the Tramways Athletic Ground, where the Sports were resumed to the accompaniment of a series of thunderstorms, which hovered round us all the time, but which strictly abstained from visiting us.

There was a fairly good crowd of spectators, and though the ground was not in perfect condition some of the performances were very creditable. The school record in the $\frac{1}{4}$ -mile was broken by J. Gibb, who did the distance in 63 secs., and T. C. Nugent rode the mile in very good time, though he did not beat Ludden's record of last year.

The jumping was quite as good as in previous years, and T. Meehan's win of the 2-mile Cycle Race was very decisive. Form Vb were easy victors in the Tug-o'-War, and the Squadron Race was carried off by Form VI. Among the Junior Events the Obstacle Race was easily the best, and most of the competitors successfully negotiated the stiffest of the obstacles which were more difficult than usual. R. Rigby and J. Mullen rode the Junior Mile very creditably, the former doing the distance in 3'20 $\frac{1}{2}$ ". On the whole the standard of the performances was equal to that of any previous year, and was decidedly higher in some particulars. The following were the Events:—

EVENTS.

1. 120 Yards (under 13).—1, T. Crosby, 14yds; 2, T. Ryan, 8yds; 3, S. Cossentine, 6yds; 4, W. Ellams, 13yds. This was a very fine race. Little to choose between winners.
2. 220 Yards (under 15).—1, F. Ellams, 13yds; 2, F. Wyld, 12yds; 3, P. Kavanagh, 6yds; 4, E. Travis, 4yds. Ellams won easily by 10 yards.
3. 220 Yards (open).—1, V. Occleshaw, 7yds; 2, J. Marshall, 4yds; 3, J. O'Sullivan, 19yds; 4, W. O'Donnell, 17yds. Occleshaw won easily by 4yds. Marshall brought a fine second, pushing through a crowd a yard from the tape.

4. 220 Yards (under 11).—1, F. Lane, 12yds; 2, L. Murphy, 20yds; 3, W. Green, 16yds; 4, A. White, 14yds. Murphy, Green and White made a dead heat for second place and race was run again, Murphy winning with much to spare.
5. High Jump (under 14).—1, L. Williams, height 4ft. 1in., handicap 2 $\frac{1}{2}$ in.; 2, J. Byrne, height 4ft., handicap 1in.; 3, N. Treneman, 3ft. 10in., handicap 5in.
6. High Jump (over 14).—1, K. Leahy, 5ft. 1in., handicap 7in.; 2, C. O'Donnell, 5ft., handicap 2in.; 3, P. Kavanagh, 5ft., handicap 7in.
7. 100 Yards Championship. V. Occleshaw. Time 10 4-5. Won by a yard with J. Marshall an easy second.
8. Tug-o-War. First Round: Ib v Vlb, winners Vlb; IIa v IIc, winners IIc; IVb v Va, winners IVb; IIIa v VIa, winners IIIa; IVc v Ic, winners IVc. IIIa v VIa was a splendid pull: the others were not very exciting.
9. 80 Yards Flat (under 11).—1, F. Lane, 2yds; 2, A. White, 3yds; L. Murphy, 4yds; 4, F. Loughlin, 10yds. Lane won on the tape. Time 11 4-5 secs.
10. 80 Yards (under 13).—1, W. Llewellyn, 8yds; 2, F. Ellams, 6yds; 3, J. Healy, 5yds; 4, T. Crosby, 7yds. Llewellyn and Ellams were the only two in it.
11. 100 Yards Flat (under 15).—1, L. Conway, scr.; F. Ellams, 6 yds; 3, J. C. Hampson, 4 yds. Time 11 4-5 secs. Scratch man won easily.
12. 100 Yards (open).—1, V. Occleshaw, 1yd; 2, J. Marshall, 2yds; 3, W. Downey, 1yd; 4, J. O. Sullivan, 6yds. Time 11 secs. Occleshaw was a winner 50 yards from the tape. Marshall and Downey were very close.
13. Wheelbarrow Race (under 14).—1, A. Donleavy, H. Flynn, 1yd; 2, J. Bolger, H. Rowe, 7yds; 3, E. Bramwells, S. Cossentine, 2yds. Very exciting finish.
14. Two Miles Cycle Race (over 14).—1, T. Meehan, 200 yds; 2, R. Cross, 130 yds; 3, M. Burns, 130 yds; J. Gray, 130 yds. Time 6 min. 19 2-5 secs. Won easily by a lap. Good finish for second and third.
15. 120 Yards Obstacle (under 11).—1, J. Clarke, 9yds; 2, B. Maloney, 1yd; 3, H. Azurdia, 9yds; 4, W. Llewellyn, scr.
16. Tug-o-War. Second Round: IVa v Vlb, winners Vlb; IIc v IVb, winners IVb; IVc v IIb, winners IVc; IIIa v Vb, winners Vb. All the pulls were well contested.
17. Egg & Spoon (under 14).—
A. 1, R. Connolly, 13 yds; 2, B. Maloney, 13yds; 3, J. Bolger, 13yds; 4, H. Azurdia, 18 yds.
B. 1, W. Bowskill, 7 yds; 2, H. Lawler, 4 yds; 3, C. Sheehan, 4yds; 4, E. Dickinson, 9yds.
C. 1, C. Irvine, 2 yds; 2, D. Crosby, 1 yd; 3, P. J. Sheridan, 2yds; 4, F. Wyld, 2yds. All three events were well contested.
18. Obstacle (open).—1, G. Gilmore, 8 yds; 2, P. Kavanagh, 28 yds; 3, M. Gray, 26 yds; 4, C. Lynch, 26 yds. Winner fully deserved his success. Has fine style of running obstacle races.
19. Obstacle (under 14). 1, N. Treneman, 18 yds; 2, H. Lawler, 10 yds; 3, S. Cossentine, 14 yds; 4, L. Uribe, 18 yds. Won on the tape.
20. 1 Mile Cycle Championship.—1, T. Nugent; 2, F. Meehan; 3, J. Gray. Time, 3 min. 5 secs. Won easily by 50 yds.

21. 880 Yards (open).—1, B. Merron, 80 yds; 2, T. Donleavy, 100 yds; 3, W. O'Donnell, 80 yds; 4, W. Egan, 120 yds. Scratch men never had a look in. Merron won without wasting much energy. Time 2 min. 8 2-5 secs.

22. Tug-o'-War. Semi-Final:

Vib v IVb, winners IVb.

IVc v Vb, winners Vb.

The former of these pulls was very interesting: Vb pulled IVc quite easily.

23. 440 Yards Flat (under 15).—1, T. Holland, 4 yds; 2, F. Ellams, 24 yds; 3, W. Morrissey, 24 yds; 4, F. Wyld, 24 yds. Won by 3 yds. 1-2 yd between second, third and fourth.

24. Throwing Cricket Ball (over 14).—1, B. Merron, 190 ft. (9 yards Handicap); 2, J. Parker, 194 ft. (3 yards Handicap.) Won by a foot.

25. 1 Mile Cycle (under 14).—1, R. Rigby, 15 yds; 2, J. Mullen, 110 yds; 3, P. J. Sheridan, 25 yds; 4, T. Fleming, 45 yds. Time, 3 mins. 20 1-5 secs. Very interesting race between first and second.

26. 440 Yards Championship.—1, J. Gibb; 2, R. Cunningham. Time 63 secs. Fine finish by the winner. Won by 3 yds.

27. Three-Legged Race (under 14).—1, J. Cloney and T. Flannery, 4 yds; 2, G. Verspreuwen and J. W. Silver, 6 yds; 3, H. Flynn and A. Donleavy, 2 yds. The closest finish of the day, about 1 inch between first and second, and same between second and third.

28. Three-Legged Race (over 14).—1, B. Merron and T. Donleavy, 10 yds; 2, D. Kirby, and E. A. Kirby, 8 yds; 3, E. Travis and J. Cullen, 11 yds; 4, J. Dunne and W. Kieran, 10 yds. Won very easy by 5 yds.

29. Tug-o'-War. Final: Vb v IVb. Vb had a decisive victory.

30. Squadron Race. Inter Form.—1, Form VI; 2, Form V. J. Gibb ran best for winners.

31. Hurdle Race (open).—1, T. Holland, 12 yds; 2, J. Shorthall, 12 yds; 3, W. O'Donnell, 7 yds; 4, C. O'Donnell, 2 yds.

32. Old Boys' Race (1/4-mile).—1, T. Rimmer; 2, J. Ludden. Won by 2 yds.

33. 220 Yards (under 13).—1, A. Crosby, 7 yds; 2, J. W. Silver, 12 yds; 3, N. Treneman, 12 yds; 4, T. Crosby, 20 yds. An excellent race. A foot separated first three in.

34. Consolation Races (under 14).—1, A. Daly; 2, T. Daly; 3, J. O'Sullivan; 4, W. Duff. (Over 14)—1, R. Cunningham; 2, H. Williams; 3, T. Heenan; 4, J. Flannery. Both very good races. R. B. Cunningham won splendidly.

Owing to the late hour at which the Sports concluded it was resolved to defer the distribution of prizes to the following day, and at the close of school on Tuesday afternoon the lucky winners received their prizes from Rev. Br. Leahy, and were heartily applauded by their less fortunate school fellows.

Our very best thanks are due to the following, who either presented Prizes for the Sports or gave donations to the Prize Fund:

A. H. Crosby, Esq., A Football.

R. Azurdia, Esq., Fountain Pen.

J. Lynch, Esq., An E.P. Tea Service.

Mrs. Evans, Box of Handkerchiefs.

G. Verspreuwen, Esq., Ten Shillings.

R. Mullen, Esq., Ten Shillings.

L. Conway, Esq., Ten Shillings.

Miss Seed, Ten Shillings.

J. Sullivan, Esq., Writing Cabinet and Clock.

J. Shaw, Esq., Cricket Bat (Witch).

S. Honan, Esq., Five Shillings.

E. Ramsbottom, Esq., E. P. Fern Pots in Case, and E. P. Crucifix.

E. Byrne, Esq., Five Shillings.

T. Lloyd, Esq., Five Shillings.

Mrs. Llewellyn, Five Shillings.

E. Murray, Esq., Onoto Fountain Pen.

T. Healey, Esq., Toilet Set.

L. Purcell, Esq., Watch.

Mrs. Broad, Half-a-Crown.

J. Wareing, Esq., Half-a-Crown.

Mrs. Lacy, Cowhide Attaché Case.

T. Crompton, Esq., Elgin Gold Watch.

F. Sugg & Co., Cricket Bat.

Mrs. Verso, Silver Sovereign Case.

Mrs. Merron, Alarm Clock.

Mrs. Murphy, Walking Stick and Box of Chocolate.

P. Cullen, Esq., Five Shillings.

T. Meehan, Esq., Electroplated Rose Bowl.

Mrs. Madariaga, Box of Biscuits.

Mrs. Fenn, Tea Tray.

P. Leahy, Esq., Seven Shillings & Sixpence.

B. Hawley, Esq., Presentation Volume.

W. Treneman, Esq., Military Brushes.

B. J. Burchall, Esq., E. P. Sugar Bowl.

J. B. Wade, Esq., Half-a-Guinea.

J. Clarke, Esq., Two Junior Cricket Sets.

Mrs. Adams, Pair of Fruit Dishes.

Rev. P. Meier, Cowhide Brief Bag.

J. Maguire, Esq., E. P. Flower Stand.

J. Park, Esq., Bicycle Lamp.

P. Kavanagh, Esq., E. P. Patent Egg

Cooker and E. P. Sugar Bowl.

D. Parsons, Esq., Set of Boxing Gloves.

J. Lane, Esq., Ingersoll Watch.

T. Trainor, Esq., Tennis Racquet.

J. O'Mulloy, Esq., E. P. Watch Stand.

F. J. Davis, Esq., Letter Pouch.

W. Grogan, Esq., Ten Shillings.

J. Flanagan, Esq., Five Shillings.

E. Bramwell, Esq., Half-a-Guinea.

Mrs. Lawler, Five Shillings.

Doctor O'Keeffe, Ten Shillings.

Mrs. Davies, Half-a-Crown.

H. Fusco, Esq., Three Shillings.

Other contributions, Eleven Shillings.

Icebergs.

By R. CUNNINGHAM. IIIa.

Since the loss of the "Titanic" there has been much talk of icebergs and their origin. At the present moment ice, in the form of glaciers and ice-fields, is confined only to a small part of the globe, although it is well known that during a certain period long ago a much greater part of the surface of the earth than at present was ice-clad. Over the larger part of the earth the snow of winter does not last through the succeeding spring or summer, but in the colder regions some of it remains in

streams and caves. It is here that these lonely wanderers of the deep have their origin. Here the variation of weather and climate converts snow above a certain level into a peculiar kind of ice, not as hard and rigid as that found in our rivers and lakes; of this ice, glaciers and icebergs consist.

There are large ice-rivers occupying the valleys on mountain declivities and fed by masses of snow on the higher mountains and snow fields. Under the influence of certain forces they glide down the valleys with a velocity which is hardly noticeable and which depends on the slope. This movement is not a smooth sliding one as would be expected, but is rather a rolling and tumbling, and the centre of the glacier always moves more quickly than either of the sides, with the result that the glacier is, as it were, turned upside down. As the glacier moves along huge blocks of stone, etc., fall on its surface. Some of these often sink to the bottom of the glacier while others become united with it, and thus it increases as it goes along. This increasing may go on for centuries and the glacier is all the time making steady progress. After a while it becomes so large that nothing can stop it, and it crushes everything down that impedes its progress in any way. At last it comes to the sea where vast masses break off with a deafening roar and cause waves whose effect is felt for miles around. These masses float away and are known as icebergs.

On many parts of the Greenland coast and especially towards the north, large masses come down from the ice sheets and meet the sea. The movement here is very rapid, huge portions become detached and float away as icebergs. One of the best examples of this is afforded by the Humboldt glacier. This forms a range of ice cliffs which is said to be forty miles in length and three hundred feet in height. Along the east coast there is such an accumulation of icebergs that navigation is impossible, and this is the reason why this part of Greenland has not been explored. The bergs when they break off from the glaciers bring with them mud and earth which the glacier has gathered up. Floating down as far as Newfoundland they begin to melt and the mud and earth sink to the bottom of the Atlantic forming the great banks which are the home of so many codfish.

Owing to the relative density of ice, being less than that of sea water, about *one-eighth* of the volume of the berg projects above the water. Journeying southwards the icebergs present the appearance of dazzling white chalk cliffs and are of the most peculiar and fantastic shapes. Sometimes they may linger round the polar seas until some strong gale or current bears them past its boundaries. These bergs often rise more than two hundred feet above the sea level, while in length they generally range from three to six miles. Icebergs of this description are frequently encountered as far south as mid-North Atlantic. Here they are a very great danger to navigation and are more dreaded by mariners than the fiercest hurricane. Their appearance is astonishing and their colour seems to be composed of blue and white bands. After they have left behind the desolate shores of Newfoundland they begin to experience the effects of the more direct rays of the sun. Long before they have even penetrated warmer latitudes the Summer's sun has begun to destroy them, melting their lofty heights, but each night's frost binds up what is left and still the great giant mass glides slowly on. Their motion is scarcely perceptible, so steadily do they ride the waves; the greatest storms seem to have no effect on them though their sides are lashed by the sea, but moment by moment, and day by day, they continue their journey southward, shrouded in fog, ever diminishing in bulk, occasionally toppling over, till at last they are completely wasted away and vanish.

“Varia.”

A FAITHFUL DOG.

Many years ago a certain Colonel Gordon was resident at Quillon in the South of India, and was the owner of a magnificent Newfoundland dog. One morning he was bathing in the neighbouring lake and the dog lay by his master's clothes on the shore. Suddenly the faithful watcher began to bark in a most violent manner, but the Colonel, unable to see any cause for the animal's excitement continued to swim in deep water. The dog became more violently excited, running down to the water's edge at one particular point. Looking in the direction to which the animal's attention was drawn the swimmer

thought that he could perceive a circular ripple moving the otherwise smooth surface of the lake. Making for the shore, he soon perceived that the ripple was caused by some large body moving stealthily under the water. He guessed at once the whole situation; a very large crocodile was swimming well below the surface, and making in his direction. The large reptile was already partly between him and the shore. The dog knew it all. Suddenly he ceased barking, plunged into the water, and headed in an oblique line so as to intercept the moving ripple. All at once he disappeared from the surface, dragged down by the huge beast beneath. When the dog found that all his efforts to alarm his master were useless he determined to make a last attempt to save him and so sacrificed his life for that of his master. A beautiful monument overshadowed by a casarina tree expresses the Colonel's appreciation of the fidelity of his dog.

(From an Autobiography—Lt. Gen. Butler.)

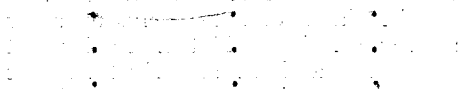
ET CETERA.

We have received a small collection of "minor intellectual entanglements," as the donor very condescendingly styles them, and we have much pleasure in submitting them to our readers. They will perhaps help to lighten the tedium of the holidays, and while they may also prove a convenient outlet for the energy which some have managed to keep in reserve, in the face of very great difficulties, during the school year, they will be to others a mild antidote to that reaction which so generally follows a serious year's work. If these puzzles meet with the appreciation of any of our readers perhaps we shall be favored by them with new and improved problems for the next issue of the C.I.M. If there be others to whom they do not appeal we feel sorry that we have again failed to add to the sum total of their happiness, and we would tell them in confidence what a C.I. sage has recently pointed out to us that there is at least one place in this life where happiness is unfailingly to be found—in the dictionary.

* * *

"When I'm in flames I am alive
And when I'm not I'm dead;
I eat no meat, nor vegetables,
Yet die if I'm not fed;
I often roar, yet never cry,
Now: will you tell me what am I?"

Here are nine dots arranged in three rows. It is required to connect them all

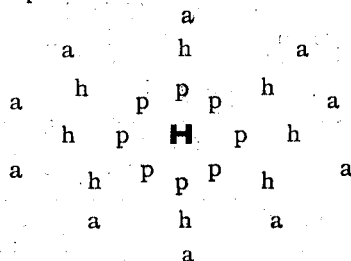


by four straight lines drawn without lifting the pencil from the paper and without going back along any line.

* * *

In the centre of a plot stands a farmer's house, and around it are planted, at equal distances apart in a circle, 8 pear-trees. Outside these pear-trees in a concentric circle and equally apart stand 8 houses let to tenants, and similarly placed outside these houses is a concentric circle formed by ten apple-trees.

Now the farmer wishes to keep the apple-trees for himself, and to give each tenant a pear-tree. How shall he construct a hedge which will enclose his own house and the apple-trees, and separate the other houses so that each has a pear-tree.



[DIAGRAM.]

* * *

If a man carrying a dozen lamps suddenly drops one what profession does he become a member of?

* * *

In a tiny cottage among the Welsh hills there lives a family of four persons comprising a father and a mother, a son, a daughter, a brother and sister, an uncle, an aunt, and two cousins. Rather a curious family isn't it? Perhaps you would kindly explain.

* * *

A man has twenty coins of various values whose total value is one pound sterling. What coins has he?

* * *

A small boy told me recently that he has something which was taken from him before he got it. What has he?

A man has nine pieces of chain, one piece consists of 3 links, another 4 links, two pieces have each 5 links, three pieces have each 6 links, there is a single piece consisting of 7 links, and a last piece consisting of 8 links. He wishes to join these 50 links into an endless chain. It will cost him 1d. to open any link, and 2d. to weld a link together again, but he can buy a new endless chain of the same character and quality for 2/6. What is the cheapest course for him to adopt?

* * *

When our readers (or any of them) have solved the foregoing they will remember that the School of Experience gives no engraved diplomas, but nevertheless one has little trouble in identifying her graduates, so neither do we confer parchment distinctions on our successful candidates.

The Development of Electric Traction.

BY F. J. TINDALL, B.Eng.

The lessons of the recent strikes are numerous, and have opened our eyes rather widely to many facts and conditions, of which we had little dreamed. The great paralysis of trade has demonstrated very forcibly the dependence of manufacturers and employers on the workers, while, on the other hand, the terrible sufferings incidental to the strikes show with equal force that this dependence is of a somewhat reciprocal nature.

What we have most realised, however, is the extent to which the railways and tramways have entered into our lives. Steam locomotives are very old friends of ours, and we are not surprised at their devotion to us; but it is not so very long ago since we made the acquaintance of electrically propelled trains and trams, and it has taken but a comparatively short time for this acquaintance to develop into an ardent attachment.

Previous to the year 1879 many inventors had devoted much time and ingenuity to the evolution of a workable system of electric traction, but it was not until this year that the first really successful train was constructed. Up to this time the self-contained car was the only idea considered. In this the energy required for driving was obtained

from voltaic cells carried on the car, and in consequence the period of operation was very definitely limited.

At the Berlin Electrical Exhibition in 1879 Siemens and Halske laid a short line about a third of a mile long. They erected a stationary generating plant which supplied power to the motor by means of a central rail, the running rails acting as return. This locomotive drew a train load of about twenty people round the track at the rate of eight miles an hour. Shortly afterwards the first electrical railway for regular service was established at Lichterfelde near Berlin, and was opened for traffic in May, 1881.

The track was about a mile and half long and the train was capable of carrying thirty-six passengers at a speed of thirty miles an hour. Similar successes were recorded in Paris, the Tyrol and Vienna before the first British line was opened in Ireland. This was the Portrush Electric Railway, installed by Siemens Brothers of London in 1883. The power was obtained from turbine driven generators, and the current supplied to the car through a rail at the side of the running rails, along which it returned. A short track opened during the same year at Brighton, was soon followed by lines at Ryde and Blackpool, at which latter place the conduit system was adopted. In this system the current is supplied from an underground conduit and is collected by a trolley or plough which passes down through a narrow slot in the road. At Blackpool considerable inconvenience was caused by the sand blowing into the slots, and this became such a nuisance that the line was eventually converted to the overhead conductor system.

Meanwhile in America great progress was being made, and although the first successes were achieved in Europe, the greater part of the work of development was left to American inventors. They enjoyed the advantage of better working conditions than their brothers on this Continent experienced. Tracks were were placed at their disposal and every reasonable facility offered by the governing bodies. They could rely on public encouragement, and the necessary funds were provided by investors to whom every inducement was offered. Thus the first electrical railway, constructed at Chicago Exhibition in 1883, was rapidly followed by others in all parts of

the States, and the American people were soon reaping the benefits of their generosity.

The year 1889, when the Thomson-Houston, Edison and Westinghouse companies, brought their vast experience and financial aid to bear on the subject, witnessed great improvements in connection with electric traction, and it may be said that, by the end of this year, the complete success of electrified railways was assured. Machines were made bigger and had four poles instead of two, carbon brushes displaced metal ones, and there were great improvements in the windings and other parts of the machines.

About this time, however, a new difficulty arose. Electrical installations of various kinds grew up all over the country, and the effects of leakage and induction from these very seriously threatened the successful working of telephones. It was the practice of telephone companies to use earth returns and the differences in earth potential proved a further source of trouble. After many law suits, however, satisfactory conditions were arrived at, and the two applied sciences continued to make good progress. This was shown by the opening out of lines in different parts of the world. The cable system, which was at first contemplated for the South London road, was rejected in favour of electric cars fitted with gearless motors, and this line was put into operation in November 1890. Three years later the first train was run on the Liverpool Overhead Railway.

The advent of the transformer and rotary converter about this time proved a great boon to engineers. Power houses could be built at convenient spots and alternating current generated and transmitted at high pressures to sub-stations a considerable distance away. Here the pressures could be transformed down to that required for traction, and the current converted to continuous, and distributed along the line. The conversion to direct current was necessary, as up to this time no satisfactory alternate current motor had been built. In fact this type of motor is at present in its infancy, although the London, Brighton and South Coast Railway has been run successfully from alternating current. In Italy and Germany too much useful work is being done, and a speed of one hundred and twenty six miles an hour

has been recorded on an experimental line conducted by the German Government.

From this very brief survey we see that electric traction has advanced with enormously rapid strides, and it seems but reasonable to expect wonderful things from this application of electricity in the future.

Old Boys' Association.

ANNUAL GENERAL MEETING.

The Old Boys' Association held their Annual General Meeting at the Catholic Institute, at 7-30 p.m., on Wednesday, June 26th. Rev. Br. Leahy, Hon. President of the Association, was in the chair, and there was a fairly good attendance of members and intending members, though both the hour and the day of meeting proved inconvenient to many Old Boys.

The Hon. Secretary's Report for the Session just ended showed that the Association continued to make considerable progress. The membership continued to increase, a number of prominent Catholics had become honorary members, and His Grace the Archbishop of Liverpool and His Lordship the Bishop of Shrewsbury had both become Patrons of the Association. He regretted that they had been deprived by death of one of their most loyal and ardent members, Mr. A. J. McCann, and he was sure he voiced the sentiments of every member present when he expressed his and their sincere sympathy with Mr. McCann's family. A number of social functions, including an Annual Dinner, had been held during the session, and were most successful. A lecture by Rev. Fr. Ryan, O.S.B., was pretty well attended and thoroughly appreciated. The Bohemian Concert organized by the Association was but poorly supported, but the Annual Concert, and the Social Evening which was held later, had record attendances. On the whole this department of the Association's work had developed in quite an unprecedented way, and had already placed the Association on a par with the best of its kind in Liverpool. In the Athletic section there was still much to be desired. The Football Club had, so far, reflected little honour on the ex-pupils of the Institute, though, he felt bound to add, that at the close of last football season there

were encouraging evidences (on the part of several of our footballers) of that loyal and enthusiastic support which alone can bring the Old Boys' Football Club into the position it should occupy in the Football world. It was not surprising to find that the Cricket Club suffered from the same want of support, which had been so detrimental to the Athletic Club ever since its inception. It was to be hoped, however, that as the Association grew stronger its Athletic Club would have a larger number of generous and loyal members, and that thereby a burden which hitherto had rested on the shoulders of a very few would be shared by an ever increasing number. The attendance at the meetings of the Debating Society varied considerably, and it appeared that only a very small section of the members were able to avail of the opportunity for self-improvement which such a society offers. No doubt this was largely due to the difficulty of selecting a suitable time and place for meeting, and also to the fact that other debating societies seemed to have prior claim on the time of some of our members. On the whole the Association had done well during the past session, and there was now sufficient ground for hoping that in the immediate future it would extend its sphere of usefulness, and include the full development of those functions for which the Association was established. A programme of Social and other meetings would be laid before them that evening, and it was moreover proposed to arrange for Lectures by prominent literary men during next session. There was a danger that it might be assumed that the Association existed merely for the purpose of organizing an Annual Dinner, and perhaps one or two social gatherings. No doubt the carrying through even of that very unambitious programme in the proper way would be productive of some small benefit, but the aim of the Association is higher and more comprehensive as the objects of its foundation will show. He appealed to every member of the Association, especially those who already held positions of trust and honour, to aid the Executive in carrying out this more liberal programme, which would bring more tangible good, especially to the junior members of the Association. Owing to the short time that had elapsed since the founding of the Association little had been done to enable junior

members to better their position in life, and he hoped that as the members of the Association became better acquainted with one another, and as consequently there would spring up among them a more realistic *esprit de corps*, they would be able to point to very beneficial achievements in this particular sphere of the Association's work. He thanked the members of the Executive for the assistance they had given him in discharging the duties of Secretary, and especially in organizing the two chief functions of the Session.

The Balance Sheet submitted by the Hon. Treasurer, showed a net balance of £41 5s. 7d. at bank; the balance brought forward from the previous year was £17 1s. 10d.

The election of the Executive for next Session was then proceeded with. There were two nominations for the vice-presidency—Mr. J. A. Curtin, M.A. and Mr. Jerome Twomey, B.Sc. The former was returned by a majority of 3 votes.

The members of the Executive for 1912-13, are:—

President—GEORGE R. REID, Esq.

Vice-President—J. A. CURTIN, Esq., M.A.

Hon. Treasurer—W. J. MURPHY, Esq.

Hon. Secretary—REV. BR. W. D. FORDE.

Assist. Secretary—H. McGRATH, Esq.

Organizing Sec.—W. H. ROWE, Esq., B.Sc.

Committee: Messrs. W. O'Byrne, R. A. Twomey, B.Sc., F. J. Tindall, H. Wilson, A. Lamble, D. Hayes, F. J. Maguire, T. J. Curtin and J. Twomey, B.Sc.

The following new rules were passed:

- (a.) That the Assistant-Secretary and the Hon. Secretary of the Athletic Club be *ex-officio* members of the Executive of the Association.
- (b.) That on hearing of the death of any member of the Association, the Hon. Treasurer shall arrange to have Holy Mass offered for the repose of the soul of the deceased Member.

The Programme of the Association for next Session was discussed at considerable length, and there seemed to be a very pronounced divergence of opinion with regard to the proposal to arrange for a few lectures on literary and social

subjects to be given annually to members of the Association. The following outline syllabus was approved by a substantial majority: Annual Concert, Annual Dinner, Whist Drive and Dance, two Social Evenings (confined to members); two Lectures. All details regarding these functions will be supplied to members in due course.

A hearty vote of thanks to the chairman was proposed by Mr. D. Hayes and seconded by Mr. W. H. Rowe, which Br. Leahy suitably acknowledged.

At the close of the meeting Rev. Br. Leahy offered the congratulations of the Association to Mr. R. A. Twomey on his appointment to the staff of Liverpool University. Mr. Twomey replying, thanked Br. Leahy and the members for their congratulations and expressed his very deep and sincere gratitude to the Irish Christian Brothers to whom he owed whatever success he had achieved.

CRICKET CLUB.

The Old Boys' Cricket XI has been fairly successful though it has not met with that support which was at first anticipated. It is strange that many of the most successful Cricketers in the School first XI in previous years have altogether abandoned the game, and consequently have not been in a position to strengthen the O. B. XI. Seeing that a sufficiency of players is the only requisite it should be possible for the team to grow much stronger next season. Of the games played up to the present only two have been decidedly unfavourable so that the present XI have no very good reason to be dissatisfied with their record. The following matches have been played:—

	For	Agst.
Hutchinson Hall, at Wavertree	41	71
Mossley Hill Choir, at Calderstones	61	33
14th Boys Brigade, O.B.C.C., at Wavertree	34	37
C.I. C.C., at Wavertree	49	29
Hutchinson Hall, at St. Michaels	40	106
B'head. Municipal, at B'head	42	53

UNIVERSITY APPOINTMENT.

The members of the Association and many others who are acquainted with Mr. R. A. Twomey, B. Sc. (Honours), will be pleased to hear that he has been appointed Assistant Lecturer on Mathematics at the University of Liverpool. It is only four years ago that Mr. Twomey won a Senior City Scholarship

at the C.I. on which he entered the University where he has had a brilliant and distinguished career. We believe he is the first student of the University on whom the honour of being appointed on the staff at the conclusion of his course has been conferred, and we feel sure that this appointment is but the prelude to greater things that await Mr. Twomey in the near future. We heartily congratulate him on his well-merited success.

FOOTBALL CLUB.

Our Annual Meeting took place on May 12th, under the chairmanship of Rev. Br. W. D. Forde. The Secretary and Captains' reports were considered satisfactory, and seeing that we had wended our way to Anfield as Shield Finalists, and had only just lost the Old Boys' Shield by the odd goal in 5, we decided to overlook all minor failings in the light of our grand Shield struggle, which Shield, by the way, and this in confidence, we mean to win next year. Our genial treasurer, Mr. Lambie, was for once in a way, cross, for he was annoyed with the fines which had been inflicted upon us during the past season. He complained that some of our players turn up late, and so cause us to be heavily fined, and said he—"if you had only turned up in time in all our matches, instead of a small debit balance, I would have a large balance in hand." We unanimously re-elected him as treasurer in order that he might have an opportunity of wiping out this debit balance.

We decided to run our first team in the I. Zingari League, to run a junior team in the 2nd division of the South Lancashire Amateur Combination, in addition to which an "A" team will also be organized.

We learned with great regret that Mr. Llewellyn is leaving Liverpool, and will consequently be unable to continue as our Hon. Secretary; he will be greatly missed, and it will be impossible to find so able a man to fill his place. We wish him every success wherever he may go, and we sincerely hope that he may come back to us in the near future. He very kindly volunteered his assistance to our new Secretary, Mr. Lacy, until he actually leaves the second city, and this kindness of his was very much appreciated.

The officials for next season are:

Hon. Sec.—Mr. J. F. Lacy, Ardmore, Albion St., New Brighton.

Treasurer—Mr. A. Lamble, The University, Liverpool.

Captain—Mr. W. O'Byrne, 67, Windsor St., Liverpool.

Sub Captain—Mr. H. Wilson.

These, with Messrs. F. J. Tindall, F. J. Maguire and T. J. Curtin, form the Management Committee.

But, what of the future? Well, we believe that our initial difficulties and struggles are now over, and that next year we shall win a golden harvest in the shape of championships and a shield, for with last year's team placed in the field continuously, and with a few recruits of whom we have heard, we feel confident of the future. But what makes us so certain of success is the "esprit de corps," which has now at last won its way into our ranks—and it is rumoured that one or two Old Boys who rank high in the football world, will place their talent at the service of their Alma Mater next season—and so we say we are certain of our success, for with the harmonious blending of the newer and the older of our footballers we shall make victories doubly sure.

The Hon. Sec., Mr. J. F. Lacy, will be pleased to hear from all former pupils of the Catholic Institute, who are interested in the success of the Old Boys' Football Club.

'VARSITY LETTER.

DEAR MR. EDITOR,

It is at the end of the academic year that one becomes retrospective and looks back with mingled feelings on the joys and sorrows provided by that ever fickle Dame Fortune. We can remember how we started the year, fresh after a summer's vacation and vowing to do prodigies in the scholastic line. Then came the usual musical evenings and other diversions, and our determination became weaker and weaker, until at the approach of the Christmas Terminals, we contemplated moving in a fourth dimension as a probable way out of the difficulty.

The second term we took with a kind of stoical calm, leaving to the last possible moment the commencing of that work necessary to satisfy the examiners. And so, in looking back on

the events of the last term, we find that it has been a hard sprint from beginning to end; an attempt to make up for our wanderings from the true path. But the Results are out, and our list of congratulations is long. Mr. J. Twomey has succeeded in obtaining an M. Sc. degree, and this, after but four years spent at the University is a creditable performance indeed. Mr. R. A. Twomey is as usual to the fore, having secured a first class honours degree in Physics, together with the Oliver Lodge prize, whilst Mr. R. Halsall has a second class honours degree in the same subject. Both of these have now B.Sc. (Hons.) in Mathematics, and B.Sc. (Hons.) in Physics. Mr. Ford has secured his B.Sc. degree after three years' work, whilst Messrs. Kirby, McMillan and Holland have successfully weathered the dangers of their Intermediate B.Sc. and Mr. P. F. Carroll has been successful at his First Exam. in Dental Surgery.

In the Arts Faculty, Mr. T. J. Curtin and Mr. F. Bevan have gained B. A. degrees, and the latter has obtained a distinction in Latin. Our representatives in the Engineering Faculty—Messrs. Tindall and O'Donovan, have also distinguished themselves, both of them having obtained first class degrees in Electrical Engineering. Such a harvest of successes is indeed inspiring, and it may be safely left to next year's representatives from the C.I. to emulate the deeds of their predecessors. However, sufficient for the day is the evil thereof; and we may safely leave the future to take care of itself.

But apart from such considerations as Examinations the term has been interesting. The Annual Sports held at Calderstones on June 1st attracted members of both sexes. The weather was all that could be desired, and hence the proportion of ladies in their gay dresses was quite phenomenal. The scene was an animated one, the pretty enclosure at Calderstones looking its best, and "all went merry as a marriage bell." It is rather disappointing however that we had so few representatives from the C.I. entering for the events. Mr. R. Burke came third in the hundred yards sprint, while Mr. F. Tindall excited universal admiration on account of his neat style in the high jump. Beyond this however, we had no success, and there is ample field for improvement.

Let us hope that the younger generation of Old Boys at the 'Varsity will succeed in effecting this improvement.

And now, we have reached the end, Exams. are over (peace be to them!), so we hasten to shake the dust of Liverpool off our feet and to rush forth to enjoy the pleasures of the simple life.

A. L.

Science and Religion.

Few periods in the world's history have witnessed such revolutionary changes in beliefs and institutions as the present, and no inconsiderable part of the impetus which has worked these upheavals may be attributed to the extraordinary developments which have taken place in the domain of Science. Modern scientific discoveries have undoubtedly taught us to look with a certain distrust on dogmas and theories which were unreservedly accepted by our forefathers, and if the resultant unsettling of men's minds has proved prejudicial to ideas and institutions at once venerable and universal we must accept it as part of the price which we have to pay for the privileges of progress. It is not surprising then that we should hear it asserted with an infallibility which is always a characteristic of such propaganda, but which nevertheless is strangely inconsistent with modern thought, that recent scientific research has even shattered the very fundamentals of Religion.

The study of Science, we are assured, tends essentially to Agnosticism and Atheism, and so energetically has this been urged that with many it is almost a symbol of modernity to assume this supposed antagonism between Religion and Science. It will, therefore, be interesting to know if the recognized leaders of modern scientific thought have found any antagonism between fundamental Christian beliefs and the fully-established laws of Natural Science, and we shall show from their writings that they have not. That the results of scientific investigations have sometimes seemed at variance with the revealed truths of religion is not strange, for every real scientist knows, and incidents in the history of scientific research show but too clearly, that theories whose truth had been unreservedly accepted by one generation of Scientists were ruthlessly relegated to

the limbo of scientific error by those who succeeded them. Infallibility is by no means associated with scientific dogma: the true Scientist is essentially conservative, and consequently he is extremely slow to proclaim that Science has uttered the last word especially in matters that do not lie entirely within the sphere of his investigations. The following quotations will show that the most renowned Scientists of modern times—and it is with them that this matter is most intimately associated—have not found in their investigations any reasons for the rejection of those religious beliefs the truth of which “remaineth for ever.”

J. R. Mayer whose contributions to Science are well known and of whom Tyndall declared that “no greater genius has appeared in our century” writes:—“My early feeling that scientific truths are to the Christian religion much what brooks and rivers are to the ocean has become my most vital conviction;” and again, “The firm conviction that I have based on scientific facts and without any reference to Revelation—of personal immortality, and of a higher direction of human life, was my greatest consolation when I clasped the cold hand of my dying mother.” Sir Humphrey Davy whose researches and discoveries in Heat are well known, said that the doctrine of the Materialists was always a cold, heavy, dull and insupportable doctrine to him. And in another place he added that a walk into the fields or woods brought back his feelings from Nature to God: he saw in all the powers of matter the instruments of the Deity.

The greatest of recent Physicists—Sir Wm. Thomson (Lord Kelvin)—stated that purely mechanical reasoning teaches us that our bodies as well as all living plants and animals and all fossil organic remains are organised forms of matter to which science can point no antecedent except the Will of a Creator. “A truth, amply confirmed by the evidence of geological history;” and moreover, “It is impossible” he says “to understand either the beginning or the continuance of life without an overruling creative power.” In a speech delivered at University College, London, in May 1903, he said:—“With regard to the origin of life Science positively affirmed creative power. Science made everyone feel a miracle in himself. It was not in dead matter that they lived and moved and had their being, but in

the creating and directive power which Science compelled them to accept as an article of belief They only knew God in His works, but they were absolutely forced by Science to admit and to believe with absolute confidence in a directive power—in an influence other than physical, dynamical, electrical forces. Cicero had denied that they could have come into existence by a fortuitous concourse of atoms. There was nothing between absolute scientific belief in creative power, and the acceptance of the theory of a fortuitous concourse of atoms. "Was there," he asked, "anything so absurd as to believe that a number of atoms by falling together of their own accord could make a crystal, a microbe, a living animal?" People thought that given millions of years there might come to pass, but they could not think that a million of millions of millions of years could give them unaided a beautiful world like ours. They had a spiritual influence, and in Science a knowledge that there was that influence, in the world around them . . . With freedom of thought they were bound to come to the conclusion that Science was not antagonistic to religion but a help for religion." Later on he added that "Scientific thought is compelled to accept the idea of creative power. Forty years ago, said he, I asked Liebig, walking somewhere in the country, if he believed that the grass and the flowers which we saw around us, grew by mere chemical forces. He answered 'no, no more than I believe that a book of botany describing them could grow by mere chemical forces.' Every action of human free will is a miracle to physical, chemical and mathematical Science. Do not be afraid he concludes, of being free-thinkers. If you think strongly enough you will be forced by Science to the belief in God."

We live in the "age of electricity" and consequently it will be of interest to consider the attitude which the most distinguished investigators and discoverers in this branch of Science manifest towards Christianity and religious beliefs. We instinctively turn to those names that are inseparably associated with Electricity—to Volta, Ampère, Faraday, Ohm, Coulomb, &c., and we find that the researches and discoveries of these renowned Scientists have only intensified their religious beliefs. Volta, the discoverer of current electricity was an exemplary Catholic

who heard Mass daily, and was most assiduous in the discharge of his religious duties. It was his custom to recite daily the Rosary of the Blessed Virgin and neither his great renown as a scientist nor his strenuous work as an investigator prevented him from attending regularly at his parish church on Sundays to teach the Catechism to little children. Such was the man who alone saw the explanation of the more or less accidental discovery of Galvani (who by the way was also a Catholic and a member of the Third Order of St. Francis) and from his Confession we learn that the same piercing, logical, and patient mind which has left us "the most wonderful instrument of man's device" also examined the credentials of Christianity, as well as the works of its apologists and its assailants, and that his conclusion was that "such study only clothes religion with such a degree of probability, even for the merely natural reason, that every spirit unperturbed by sin and passion, every naturally noble spirit must love and accept it."

The great Ampère, "a man who possessed all the characteristics of scientific genius, spacious vision, acuteness, and infallible accuracy of deduction" was at the time of his famous discoveries a zealous and convinced Catholic. In his early years he was much harassed by doubts and difficulties regarding religion but all these disappeared (notwithstanding his scientific investigations?) and we can imagine this greatest of scientists in church kneeling side by side with poor women and children, humbler in soul than the least of them, or exclaiming to his friend Ozanam, "How great God is! All our knowledge is absolutely nothing." Michael Faraday, who is acknowledged to be "the greatest" experimental philosopher of all time, was also a sincere Christian. Though not a Catholic he championed Christianity whenever the occasion arose, and the more he came to know of nature the more fully did he recognise the power of God. It was not assuming too much to say that he who exclaimed on beholding the empty chrysalis of a now matured butterfly. "How old and how beautiful is this figure of the Resurrection"! would have answered any scepticism as to the Mosaic theory of the origin of the world by quoting the words of the Apostle, "Is anything too difficult for God?"

Volta, Ampère and Faraday then

found no antagonism between Science and Religion; neither did Galvani, Ohm, Oersted, Clerk Maxwell, and several others, and these must be recognised as the pioneers and leaders of the greatest of modern Sciences. Surely the loudest proclamations of men of the Haeckel type have no weight when confronted with the unbiassed evidence of minds such as Volta, Ampère and Faraday.

If we look at the roll of famous Chemists we shall find among the most brilliant discoverers in this all important branch of modern Science a decided preponderance of names that witnessed faithfully to the truths of religion. We shall find Lavoisier, Dalton, and Berzelius whose sincere religious convictions cannot be questioned. Vanquelin the discoverer of Chromium and Glucinum and the no less fervent Catholics Baron Thenard, Dumas and renowned Pasteur. "It is just because I have thought and sought so much," replied the latter on one occasion, "that I believe with the faith of a Breton peasant. If I had thought more and studied more I would have come to believe with the faith of the Breton peasant's wife."

In the other branches of science we shall also find plenty of evidence to show that the best and greatest of those, to whom we are indebted for the knowledge of Science which is at our disposal to-day, found no antagonism between Science and Faith. Very many of them have given expression to the opposite conviction. We may very fittingly conclude this necessarily brief paper by quoting the words of Liebig, the great fellow worker and rival of Dumas. "It is not, said he, the true savants and discoverers who hold up materialism as the necessary conclusion of their researches. Such assertions come from the dilettantes who, fresh from a stroll along the outer fringe of Science, take it upon themselves to inform the ignorant and credulous masses how man has unveiled the highest mysteries."

A MATHEMATICAL JOKE.

De Morgan relates how the renowned mathematician, Euler, completely nonplussed the unbeliever, Diderot, by giving him a mathematical proof of the existence of God. Diderot was on a visit to the Russian Court, where he freely expressed his atheistical opinions, and thereby caused much scandal to some of the more devout courtiers. It

was therefore decided to cut short the Frenchman's irreligious vapourings, and consequently they invoked the assistance of Euler. In due course they informed Diderot that an eminent mathematician had an algebraic proof of the existence of God, and was quite anxious to communicate it before the whole Court. The proposal met with Diderot's approval, and Euler appearing before the assembled courtiers approached him with the gravest air, and in a tone of perfect conviction said, "*Monsieur, $a + b^n = nx$, donc, Dieu existe, répondez.*" Diderot knowing nothing whatever about Algebra was quite bewildered. Unable to say anything in reply, he withdrew from the assembly, and shortly after returned to France without having given expression to any further discourses on his favourite topic.

Cricket Club.

The general meeting of the Cricket Club was held at the close of last term. All the cricketers in the Senior Forms attended, and there was the usual display of that more refined sort of enthusiasm, which a cricket atmosphere invariably inspires. After a brief review of last season by Rev. Br. Forde, and a general exhortation to maintain and even improve our Cricket status, we proceeded to elect officers for the coming season. The onerous duties of Captain were entrusted to D. J. Gavin, who had served the Cricket XIs faithfully and well during the two preceding seasons, and our popular athletic expert, J. Parker, was voted to the post of sub-captain. The games played up-to-date show that, under the guidance of Gavin and Parker, the team has been quite successful, and will be able to record a pretty good season. There has been no want of keenness in the matches, and though our fielding was decidedly weak at first there has been a very considerable improvement in the later games, and the fears that the C.I. XI would lose their reputation for smart fielding seem quite unfounded. The number of matches won up to the present shows that we have more than held our own, though we met with a reverse for the first time against the Collegiate on their ground; a lucky 6 also gave S.F.X. their first Cricket victory over us. The details of the matches, as well as the averages which we give, will interest the many

who are always delighted to see the C.I. XI still maintaining against all odds the worthy traditions of their predecessors.

FIRST XI.

C.I. v. Liscard High School.

This was the opening match of the season, and was played at Liscard. C.I. fielded first, and through some fine bowling by Shaw, put Liscard out for 51. C.I. then batted and managed to pass their opponents' total by the narrow margin of one run.

LISCARD.

K. Gibson, b Shaw...	0
Dudley, b Parker ...	2
Taylor, b Shaw...	2
Greaves, not out ...	22
Hyde, b Shaw ...	3
Wilkinson, b Shaw ...	4
Wrigley, run out ...	5
Fry, run out ...	9
Watson, c Callaghan, b Shaw ...	0
Reiss, c Quinn, b Shaw...	0
Boxley, b Shaw ...	0
Extras...	4

Total Score... 51

CATHOLIC INSTITUTE.

J. Hall, c Wrigley, b Taylor ...	7
C. O'Donnell, c Fry, b Wrigley ...	0
J. Parker, b Taylor ...	8
D. Gavin, b Wrigley ...	2
J. Shaw, c.b.w. Wrigley ...	8
R. Cunningham, b Wrigley ...	12
J. Fletcher, c & b Fry ...	1
C. Jones, b Hyde ...	5
J. Quinn, not out ...	1
V. Occleshaw, b Wrigley ...	3
M. O'Callaghan, b Wrigley ...	0
Extras...	6

Total Score .. 53

C. I. v St. Francis Xavier's College.

The match was played at S.F.X. ground, Childwall Road. S.F.X. batted first, and owing to the condition of the ground as well as to Parker's difficult bowling, wickets went down very fast. The whole XI were dismissed for 15 runs. C.I. found it equally difficult to manage Bromilow's bowling for S.F.X., and were quite satisfied to win by a relatively good margin.

S. F. X. COLLEGE.

Duff, c O'Donnell, b Parker ...	0
Mills, h.f.w., b Parker ...	0
Nolan, b Jones ...	2
Brown, b Parker ...	0
Carroll, c Shaw, b Jones ...	7
Bromilow, c Fletcher, b Parker ...	2
De Winter, not out ...	—
Killikelly, run out ...	0
Extras...	1

Total Score . 15

CATHOLIC INSTITUTE.

J. Hall, b Duff ...	1
C. O'Donnell, b Bromilow ...	0
J. Parker, b Bromilow ...	6
J. Shaw, b Bromilow ...	0
D. Gavin, b Bromilow ...	1
L. Conway, b Bromilow...	0
C. Jones, c Killikelly, b Bromilow...	2
J. Fletcher, b Duff ...	0
V. Occleshaw, l. b. w. b. Duff ...	6
J. Quinn, not out ...	0
R. Cunningham, b Bromilow ...	2
Extras...	4

Total Score... 24

C. I. v. Mossley Hill.

Played at Calderstones. C. I. went in first and batted poorly. Their total of 16 was easily passed by Mossley Hill.

CATHOLIC INSTITUTE.

L. Conway, b Denson ...	2
J. Parker, b Atkin ...	2
J. Shaw, b Denson ...	0
R. Cunningham, c and b Denson...	5
D. Gavin, b Denson ...	2
C. Jones, b Denson...	0
O. Wareing, b Atkin ...	3
J. Fletcher, b Atkin ..	0
V. Occleshaw, b Denson ...	0
J. Quinn, c and b Denson ...	2
J. Gibb, not out ...	0
Extras ..	—

Total Score... 16

MOSSLEY HILL.

Williams, b Parker ..	0
Dickinson, b Fletcher ...	0
Shallcross, b Jones ...	9
Henshaw, b Parker ...	1
Atkin, b Parker ...	0
Denson, b Parker ...	1
Moore, b Shaw...	6
Williams, W., b Fletcher ...	2
Telfer, b Shaw...	3
Tranmer, not out ...	3
Moore, J., b Parker...	2

Total Score...29

C. I. v. Liverpool College.

This match was played at Fairfield. The College batted first, and mostly on account of the slack fielding of the C.I., amassed a total of 59. Parker's fine bowling was rendered useless by the bad fielding, many catches being dropped and boundary strokes being plentiful. The Institute then went into bat, but failed to redeem themselves, scoring only 31.

LIVERPOOL COLLEGE.

Clough, b Parker	0
Lea, c and b Parker	3
Little, c Parker, b Shaw	6
Price, c Parker, b Shaw	12
Gray, b Parker	0
Chilton, b Jones	8
Marshall, c Shaw, b Fletcher	4
Watkinson, b Shaw	7
Gessop, c Quinn, b Shaw	10
Clarke, c Parker, b Shaw	0
Roberts, not out	2
Extras	7

Total Score... 59

CATHOLIC INSTITUTE.

J. Hall, b Gray	0
L. Conway, b Little	5
J. Parker, b Gray	0
J. Shaw, c and b Little	6
C. O'Donnell, c Lea, b Little	0
R. Cunningham, b Gray	5
D. Gavin, run out	0
C. Jones, b Little	1
V. Occleshaw, c Price, b Gray	3
J. Fletcher, b Little	4
J. Quinn, not out	4
Extras	3

Total Score... 31

C. I. v. S. F. X.

Played at Wavertree. S.F.X. batted first, and after having 7 wickets down for 13, brought their total to 38, owing to very poor bowling and fielding. C.I. then went into bat, but were unable to make headway against the bowling of Bromilow and Duff, and could only score 32 runs. S.F.X. were thus victorious, for the first time, by a margin of 6 runs.

ST. FRANCIS XAVIER'S.

Checkland, c Parker, b Shaw	2
Duff, b Shaw	0
Nolan, c and b Shaw	1
Taggart, b Shaw	0
O'Donohue, b Shaw	8
Wren, c Cunningham, b Parker	1
Carroll, run out	17
Bamforth, c Cunningham, b Shaw	1
Killikelly, c Conway, b Shaw	0
Allman, c Fletcher, b Jones	5
Bromilow, not out	2
Extras	2

Total Score... 38

CATHOLIC INSTITUTE.

J. Hall, b Duff	3
D. Gavin, c Taggart, b Duff	1
L. Conway, c Bamforth, b Duff	14
J. Parker, c Checkland, b Bromilow	0
J. Fletcher, b Bromilow	3
J. Shaw, c Allman, b Duff	1
R. Cunningham, b Duff	1
C. Jones, c Nolan, b Bromilow	3
V. Occleshaw, c Allman, b Duff	4
C. O'Donnell, b Bromilow	1
J. Quinn, not out	1

Total Score... 22

Catholic Institute v. Holt Sec. School.

This match was played at Wavertree. Holt batted first, and owing to the good bowling of Parker and Shaw, were disposed of for 31. C. I. then batted and scored 41. The latter's fielding was much improved, but notwithstanding many catches were dropped.

HOLT SEC. SCHOOL.

James, l. b. w., b Parker	3
Carson, c Quinn, b Shaw	4
Cowan, c Conway, b Shaw	0
Anderson, c Hall, b Shaw	0
Clements, c Gavin, b Parker	0
Gregory, c Quinn, b Jones	6
Turton, c O'Donnell, b Jones	7
L. Trainor, not out	5
R. Trainor, b Jones	0
Madrell, run out	2
James, b Parker	1
Extras	3

Total Score... 31

CATHOLIC INSTITUTE.

J. Hall, c Gregory, b Carson	1
D. Gavin, b James	0
L. Conway, c Anderson, b Carson	2
J. Shaw, b Clements	13
J. Parker, c Trainor, b Carson	5
R. Cunningham, c Trainor, b James	2
Jones, b Carson	2
J. Quinn, b. Carson	2
C. O'Donnell, run out	1
J. Fletcher, b Carson	5
V. Occleshaw, not out	4

Total Score... 41

Liscard High School v. C. I.

Played at Wavertree. Liscard batted first and scored 40. Shaw bowled well, securing 7 wickets for 7 runs. C. I. then batted and passing their opponent's total with 7 wickets to fall, won easily.

LISCARD HIGH SCHOOL.

Taylor, b Shaw	7
Greaves, c Conway, b Parker	0
K. Gibson, b Shaw	6
Hyde, b Shaw	5
Fry, c Quinn, b Shaw	12
Wrigley, c and b Shaw	0
Baker, c Hall, b Shaw	0
Robertson, c and b Shaw	0
Mullineux, c Gavin, b Conway	3
Bunney, not out	1
L. Gibson, b Parker	5
Extras	0

Total Score... 40

CATHOLIC INSTITUTE.

J. Hall, c Fry, b Wrigley	0
D. Davin, c and b Wrigley	27
J. Parker, c Bunney, b Hyde	20
L. Conway, c Robertson, b Fry	1
J. Shaw, c Taylor, b Fry	1
Jones, b Fry	9
R. Cunningham, c Taylor, b Fry	0
J. Quinn, c Greaves, b Hyde	0
C. O'Donnell, not out	0
Extras	5

Total Score... 66

C.I. v. Mossley Hill, C.

Played at Wavertree. C.I. batted first but made a bad start and had four wickets down for 12, but on Parker and Hall becoming associated the score was raised to 33, before the former was out for a well played 15. Subsequently the the innings closed for 52. Mossley Hill then went in to bat, but were disposed of for 39, Parker capturing 6 wickets for 10 runs.

CATHOLIC INSTITUTE.

C. O'Donnell, b Henshaw	3
D. Gavin, b Henshaw	...	...	0
J. Shaw, c Williams, b Denson	...	...	2
J. Parker, c Williams, b Denson	...	...	15
J. Hall, b Tranmer	...	...	8
C. Jones, run out	...	...	4
R. Cunningham, run out	...	...	0
L. Conway, b Tremlin	...	...	8
J. Quinn, c Dickinson, b Telfer	...	...	0
V. Occleshaw, not out	...	...	2
A. Black, b Tranmer	...	...	0
Extras	...	...	10

Total Score ... 52

MOSSLEY HILL.

H. Williams, c Cunningham, b Parker	...	...	1
Atkins, c Gavin, b Parker	...	...	0
Shallcross, c Quinn, b Parker	...	...	4
Denson, c Cunningham, b Jones	...	...	0
Henshaw, c Quinn, b Shaw	...	...	83
Moore, b Parker	...	...	0
Williams, b Parker	...	...	9
Telfer, not out	...	...	4
Dickenson, b Shaw	...	...	0
J. Moore, b Parker	...	...	1
Extras	...	...	7

Total Score ... 39

Batting Averages.

	No. of Innings.	Times not out.	Runs.	Average.
Conway	9	0	64	7.1
Parker	10	0	59	5.9
Gavin	10	0	43	4.3
Shaw	10	0	43	4.3
Jones	10	1	42	4.2
Cunningham	10	0	36	3.6
Occleshaw	10	3	20	2.9
Hall	9	0	25	2.8
Fletcher	9	0	15	1.6
Quinn	10	4	9	1.5
C. O'Donnell	9	2	5	.7

Bowling Averages.

	Overs	Maidens.	Runs.	Wickets	Average
Shaw	84	26	123	50	2.4
Parker	91	14	130	34	3.8
Jones	17	3	45	11	4.0
Conway	11	3	21	3	7.0
Fletcher	20	5	36	4	9.0

SECOND XI.

Our Second XI. has been very energetic since the commencement of the season, and have generally shown good form in their matches. Luck has however rarely come their way, and they

have deserved more success than they have had up to the present. They rightly regard their well merited victory over their stiffest opponents—the Collegiate as some compensation for their lack of good fortune in other games.

C. I. v. S. F. X.

The Second XI. opened the season against St. Francis Xavier's at Wavertree. Batting first, C.I. were only able to put up the total of 17, of which Tallon scored 7. S.F.X. soon passed our total, and ran out victorious by 38.

CATHOLIC INSTITUTE.

J. Walsh	...	...	0
E. Gillow	...	...	1
W. Kieran	...	...	2
G. Heenan	...	...	5
K. Leahy	...	...	0
Flanagan	...	...	0
W. O. Donnell	...	...	0
Keuedy	...	...	0
R. Tallon	...	...	7
P. Kavanagh	...	...	0
Gray	...	...	0
Extras	...	...	2

Total Score ... 17

ST. FRANCIS XAVIER'S.

Donnelly	...	...	3
Keaton	...	...	0
Murdoch	...	...	23
Allman	...	...	0
Roscoe	...	...	15
Cayne	...	...	0
Balmforth	...	...	5
Dea	...	...	2
Wren	...	...	0
Fletcher	...	...	3
Jones	...	...	0
Extras	...	...	4

Total Score ... 55

C. I. v. St. Margaret's School.

The Institute were victorious over St. Margaret's on the latter's ground. St. Margaret's were soon dismissed for 28, thanks to the fine bowling of Heenan and Lamb, who took 4 wickets each. C.I. knocked up the substantial score of 51, Heenan 14 and Kieran 9 were the chief scorers.

ST. MARGARET'S.

Mair	...	...	0
Underwood	...	...	7
Boase	...	...	0
Latham	...	...	1
Shepherd	...	...	1
Gross	...	...	0
Broughton	...	...	2
L. Ratner	...	...	0
Frenk	...	...	7
A. Ratner	...	...	1
Owen	...	...	2
Extras	...	...	7

Total Score ... 28

CATHOLIC INSTITUTE.

Gillow	5
Walsh	7
Kieran	9
Tallon	5
Lamb	2
Heenan	14
Leahy	0
O'Donnell	2
Roji	0
Kennedy	1
Kavanagh	2
Extras	4

Total Score... 51

C. I. v. Liverpool Collegiate School.

The most satisfactory victory of the Second XI was that over Liverpool Collegiate at Wavertree. Heenan again showed his batting prowess by scoring a well played 17. Things did not look too promising for C.I. when we were all out for 44. But Leahy bowled exceedingly well, securing 6 wickets at a small cost. Heenan also did his share in the department, taking 4 wickets.

CATHOLIC INSTITUTE.

Gillow	0
Walsh	2
Kieran	4
Heenan	17
Tallon	0
Roji	5
O'Donnell	0
Kennedy	1
Kavanagh	0
Leahy	0
Parsons	0
Extras	15

Total Score... 44

LIVERPOOL COLLEGIATE.

Price	0
Leghorn	0
Pool	3
Underwood	1
Williams	8
Lore	0
Mawdsley	2
Cartnell	2
Boase	9
Johnson	9
Ratner	2
Extras	2

Total Score .. 38

C. I. v. Holt Secondary School.

From Holt's pleasantly situated ground at Calderstones we returned winners by 10 runs. O'Donnell was the most successful batsmen, scoring 17, including 4 boundary strokes. For C.I., Leahy and Heenan bowled unchanged, throughout, taking 6 and 4 wickets respectively. For Holt, Beckett secured 8 wickets.

CATHOLIC INSTITUTE.

Gillow	2
Kieran	3
Heenan	4
Tallon	1
Black	1
Leahy	3
O'Donnell	17
Flanagan	2
Kennedy	5
Kavanagh	3
Travis	0
Extras	1

Total Score... 42

HOLT SECONDARY SCHOOL.

Blundell	1
Rushton	0
Beckett	0
Beale	0
Will	22
Hall	1
Smith	2
Morris	0
Curwen	1
Dyer	0
Wright	2
Extras	3

Total Score... 32

C. I. v. St. Margaret's.

In the return match with St. Margaret's we were defeated by 14 runs. Of our 33 Black contributed 9. Heenan obtained 5 wickets and Leahy 4. For St. Margaret's, Mair knocked up a merry 25, hitting with great vigour. He also took 6 wickets at a small expense.

CATHOLIC INSTITUTE.

Gillow	3
Tallon	0
Heenan	0
Kieran	3
Black	9
O'Donnell	0
Roji	1
Leahy	4
Kennedy	1
Flanagan	5
Kavanagh	0
Extras	7

Total Score... 33

ST. MARGARET'S.

Mair	25
Underwood	4
Broughton	1
Roase	2
Owen	0
Frenk	5
L. Ratner	2
Hughes	2
A. Ratner	0
Charlton	0
E. Ratner	0
Extras	6

Total Score... 47