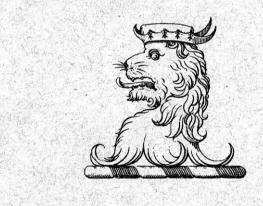
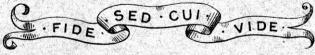
# THE DUMEING





# "The Oldham Hulmeian."

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# School Notes.

THE School will break up on Wednesday, December 22nd, and will re-assemble on Tuesday, January 18th, at 2 p.m. Work will have been set over the holidays and will at once go on in the order of the term, and boys will be expected to be in their places at the opening, that the work of term may begin without delay.

MR. J. G. Greenhalgh, M.A., Cambridge, B. Sc. London, formerly Scholar of Clare College, Cambridge, and Mathematical Wrangler, has joined the School Staff.

THE School Gymnasium will be fitted up in course of the holidays, and will be ready for use next term.

THE idea of a School Cadet Corps has for the present been given up, as the number of older boys willing to join was not large enough. There is better hope of the younger boys, who seem to have both enthusiasm and capacity—both qualities will be wanted to make such a movement a success, and we hope there will sometime be an opportunity of using them. This country as a rule gets strangely little service out of the bulk of its citizens.

# Football Notes.

ALL boys now being members of the Football club, we began the present season at a great advantage over former seasons. For one thing the club is now more liberally financed, and for another the increased membership has given a remarkable fillip to the zest and keenness with which the game is played. Until King Sol had retired to his winter quarters south of the line so effectually that darkness prevented much play after four o'clock, the regular practices were attended in large numbers. Indeed, often the question was, not how to get enough players for full sides, but whom to leave out when there were too many candidates. It is noteworthy also that many sometime loafers, and others who have formerly adorned the field by their absence, now take active interest in the game. Further, the arrangements made for the Lower Division, composed of all boys under fourteen years of age, have proved wonderfully effective in stimulating enthusiasm for the game among the younger members, whilst serving admirably for a seminary in which the young idea is taught to shoot. All this is as it should be, and promises well for the future of the School football.

Sundry details of organisation are worthy of mention. For instance, the new departure in the direction of "colours," viz., badges (with School initials) for First eleven, and ribbons (with initials) for Second eleven. It is intended that eleven of each shall be awarded in the course of the season—one after any well-played match, the award being determined entirely by merit. Worn on the green pocket of the shirt they look very handsome, and are decidedly conspicuous; and it is hoped that members of the teams will vie eagerly with one another for the privilege to wear them.

For the first time the club now possesses a fixture card, a matter of no small importance, and "full of information," &c. The first glance at the inside of the card reveals the fact that we are now running three elevens, the "Under 14" eleven being the new feature. Nor have the youngsters done so badly. Indeed, it may be said that when matched against teams of their own age they always render a good account of themselves, and of six matches as yet played by this eleven, three have been won. Those who have an eye to the future of the School's football have an eye also on many promising young players included therein, and thus both eyes are well employed.

A more careful scrutiny of the fixture card, if accompanied by a comparison of it with last season's list of matches, will show that we are playing an almost entirely new set of clubs. We have virtually excluded all local clubs from the list, in the belief that it is much better for us in every way to engage only with "foreign" clubs. On the other hand, it will be found that the three elevens among them are now playing no fewer than fifteen schools with whom we have previously had no fixtures, and of these, seven are Grammar schools.

Further, it will be noticed that our First now play the First XI. of the Manchester Hulmeians, whereas in the two past seasons we have been able only to match their Second. And the fact that the match already played with them ended after a most interesting game in so near a matter as 5 to 4 against us, shows indisputably that though our eleven has lost one or two individual players of great merit, it is by no means inferior as a whole to that of last season. This result seems to be the best means we have of estimating

the relative merits of our present XI., for a general comparison of present results with those of last season would be quite futile, because of the important fact noticed above, that we are now engaged with a totally different set of teams. Many of these, being from schools of long standing, have thereby an initial advantage over us. And in the case of some fixtures of the Second and "Under 14" elevens, it has turned out that the team opposed would have been better matched with a higher eleven. But though thus often fought under odds, the games have been manfully contested, and there is good reason for a fair amount of complacency.

After Christmas we expect to lose two or three of our strongest players, and then our elevens must look to it that they make good by skill and enthusiasm what they lose in size and weight. As other schools will doubtless also be losing players, ours should not be so heavily handicapped

as might at first appear.

In regard to the play generally, the shooting of the School forwards and the kicking of the backs, are open to vast improvement in respect to accuracy and reliability. Further, it is obvious that many of our players have not yet mastered that fundamental principle of the game—the necessity of keeping strictly to one's place. If these points are carefully attended to, and a little more dash and go are instilled into the play, we shall surely score more wins and have a really successful season.

In conclusion, let me refer to the Old Hulmeians matches. It is the first season that these have been arranged, and we hope they will henceforth be annual fixtures. We shall be glad to see our Old Boys take such interest in these encounters as to muster their full strength for them. Then these meetings of Past and Present should prove to be among the most enjoyable and interesting of all.

Q. C.

# Football.

# FIRST ELEVEN MATCHES.

Knutsford Grammar School (away), Oct. 23rd.—This, the first match for the School 1st XI., was played in fine weather at Knutsford. The School team was weakened by the inexplicable, and even now inexcusable, absence of that most important man, the goalkeeper. Each team played one Master, the School eleven being assisted by Mr. Pardoe. The Knutsford team was heavier than ours. In the absence of Swailes Mr. Pardoe kept goal. A few minutes after the commencement of the game, the first goal was scored for the School by Waterhouse; after this the home team made great efforts, and

the School goal was bombarded by shots from the Knutsford right-outside. Before half time three of these shots were successful, the score at the interval being 3-1. After a rest of a few minutes the teams again faced each other, two changes being made in the arrangement of our team-Davies, who seemed off colour, now played left-half, and Waide took his place as right-Mr. Pardoe also came out of goal, inside. relieving Duxbury at back. Our eleven did much better in the second half, their opponents being evidently rather tired. Although the latter added four more goals to their score against two put in for the School, our fellows did most of the pressing, and certainly had the best of matters in this half, the play of Mellor, the Knutsford outside-right, alone giving our opponents the victory. The ball was almost continually in the Knutsford half of the ground, but Mellor made several fine rushes, scoring in all 5 of the 7 goals registered for his side. The ground was much larger than our own, which being considered, and the fact that we played a man short, the result of 7 to 3 against the School cannot be considered discreditable.

Eccles Grammar School (home), Oct. 27th. This match was played on Wednesday afternoon, October 27th, commencing at three o'clock. After some rather fast play the first goal of the. match was scored for the School by A. O. Lees heading through from a scrimmage in front of goal. Soon afterwards the score for each side was made equal by Eccles sending in a successful shot. From this point to half-time the game was very even, no increase being made to the score by either side. Immediately after the re-start, however, Eccles scored their second goal, and shortly afterwards scored again, the School backs apparently being at fault. With the score at 3 goals for Eccles and I for the School, the home team began to play a splendid game, and immediately there was a greet change in the fortunes of the School eleven. After a period of hard pressing the splendid rushes of the School forwards were rewarded by a shot from Wellock taking effect. Encouraged by this the School continued their vigorous attack, and were repeatedly in close proximity to the enemy's goal, while our backs successfully withstood the efforts of Eccles to maintain their lead. Finally, a prolonged scramble in the goal mouth resulted in Lees neatly kicking the ball over his head and lodging it under the bar. The School were unable to score again, having all they could do to maintain the equality they had established. Thus the match ended in a draw of 3 goals to 3.

WARRINGTON GRAMMAR SCHOOL (away), Oct. 30th.—When the 1st XI. travelled to Warrington

to play this match, the weather, though fine, was too warm for football. The game was at first rather slow, and there was much faulty play on both sides. Afterwards the teams woke up, and the play was more lively. After the School forwards had been pressing for some time, their efforts were rewarded, and the first goal was scored for the School. The game was then rather even till almost half-time, when the School goal was bombarded, but Collins several times saved very well. In the second half the School defence seemed to break down, the backs kicking very wildly, consequently, Warrington succeeded in raising the score to 3-1 against the Then the School forwards made great exertions to score, and in the end Wellock put in a successful shot. There was no more scoring, and the match resulted in a loss for the School by 2 goals to 3.

OLD HULMBIANS (home), Nov. 6th. -- The team that the Old Boys put in the field for this match was tolerably representative, but we were not favoured with the presence of Hirst, the "crack" of last year's School XI. The match commenced in a way that seemed to threaten a very one-sided game. Two goals were scored for School in the first five minutes. Afterwards there was good play on both sides, the visitors' right wing being especially noticeable. In the second half the Hulmeians fared much better, Winterbottom in particular playing a splendid game for his side. The School, having scored four goals, were still ahead, but before time was called the score of the Hulmeians amounted to 3 goals, a very good game thus ending in a win for School by 4 goals to 3.

KNUTSFORD GRAMMAR SCHOOL (home), Nov. 13th.—The ground was in wretched condition when the above match was to be decided. It will be remembered that Knutsford won the first match by 7 goals to 3. Mr. Cross and Mr. Pardoe both played for School, the same number of gentlemen playing for Knutsford. Knutsford being one short, J. B. Wood played for them, and acquitted himself very creditably. Play was very tast, but Knutsford obtained the advantage, the School XI, scoring only one goal in the first half. In the second half matters still went badly for the School. Although our forwards made every effort to break through the Knutsford defence, they found it difficult to do so, and added only three more goals to the score, while the Knutsford score reached 9 goals before time was called. The visitors seemed almost entirely to rely for their scoring on their right-outside, Mellor, who scored 8 goals out of the 9.

HULME GRAMMAR SCHOOL, MANCHESTER (away), Nov. 20th.—This match was looked forward to with more than usual interest, as our

XI. were for the first time to be pitted against the Mancunians' 1st. It was decided to play two 40's, and the School, winning the toss, started up the slope. They soon found that the slight slope gave an advantage to Manchester, and the latter pressing hard were several times prevented from scoring only by the brilliant goalkeeping of Collins. Their outside-right, Swindells, was especially noticeable, and at length scored from a good shot. Until half-time the home team had things mostly their own way, our backs being much at fault, and succeeded in scoring two more goals, while the School had not vet scored. Shortly before half-time, Middleton at right-outside had changed places with Broomhead at right-half, and this change of positions was maintained for the rest of the game, much to our advantage. Aided now by the slope, our boys pressed most vigorously, making repeated rushes upon the enemy's position, their goalkeeper having all he could do to withstand the assault successfully. Ten minutes or so after half-time, Wellock scored the first goal for the School. Meantime, Manchester were not idle, but added their fourth point shortly after. Our XI. again pressed, and Broomhead put in a shot that raised our score to two. Play was fast, and our opponents dribbled well, and it was only the vastly improved kicking of Duxbury and Tetlow at back that prevented Manchester scoring more But supported by this safe and frequently. steady play at back, the School forward line made several energetic attempts to reach the enemy's quarters, and at last some good passing between Wellock and the left wing resulted in Waterhouse landing the ball through the posts. The School looked like winning at this period. Middleton relieved many times by taking the ball from the feet of the enemy's left wing, fairly outclassing them. Our opponents, however, pulled together and scored their fifth goal. Another fine rush of our forwards ended in A. O. Lees obtaining the fourth point for the School. Only about two minutes were now left for play, and our boys pressed hard to equalise. At the finish they were playing so well as to give the impression that they would have won had time availed. But a hard-fought and very interesting game ended in a loss for the School by 4 goals to 5. B.R.

#### SECOND ELEVEN MATCHES.

FIELD HOUSE COLLEGE IST (home), Oct. 9th. The Second Eleven began the season in good style by scoring a win in a well-contested match. The game commenced with a fine rush by the School forwards, which, however, only resulted in a goal kick. After the kick-out play became very fast, and the School had rather the better of it,

the forwards especially showing their superiority in combination over their heavier opponents. Indeed, if it had not been for the splendid play of their goalkeeper, Field House College would have fared much worse than they actually did. The first goal was scored for the School by Wilde, who kicked through from a scramble in front of goal. After this play was more even, the School goal being several times in danger, from which it was saved only by the steady play of Collins, its custodian. The School backs did not play as well as might have been expected, Brierley's play especially being very tame. Before halftime a splendid shot from Harrison raised the score to 2-o in favour of the School. The visitors also scored one goal in the first half. In the second half the game was much more even, the play of our forwards falling off a little, and the visitors equalised soon after half-time. This roused the School eleven to redoubled exert ons, which resulted in a goal being scored by Broomhead, the right half-back. In the end the School eleven won a fast game against a much heavier team by 3 goals to 2.

RHODES HOUSE SCHOOL IST (home), Oct. 23rd.—Instead of being a team of boys as expected, the Rhodesians turned out to be veritable Goliaths in comparison with the diminutive sizes of our 2nd. Consequently, the game resulted in a farce, in which their burly opponents made tracks round our boys, and even found time to engage in contests of friendly rivalry with each other. Strange as it may seem, however, we led by one goal (kicked by Harrison) to nil at halftime, but this was entirely on account of the wind When the Brobdingnagians had at our backs. the wind in their favour the fun waxed fast and furious. Our opponents bombarding our position to such good effect with their cannon-like shots that by call of time they had scored 10 goals. In this half our fellows never succeeded in getting more than three-quarters of the way down the field, and thus lost the match by I goal to 10.

BROOKLANDS SCHOOL IST (away), Nov. 6th.—The home team started with the wind in their favour, and with a rush carried the ball to the visitors' goal. It was returned to centre, and the School took it up to the home goal. Again it was returned, and one of the home team, after dribbling nearly half the field, scored. The home team pressed heavily until half time, four goals being added to their score, mainly through the clever play of two of their forwards, whose pace and dribbling were far too good for our backs. The Hulmeians kept the ball in the Brooklands quarters during the greater part of the second half, but were not successful in scoring, the homesters' back division being too

strong. The School defence in the second half was also more vigorous, Collins coming out of goal to change places with Brierley at back. Notwithstanding this, however, and the energetic efforts of the School forwards, the home forwards, by one or two fine rushes, succeeded in notching two more points, the game ending in a loss for the School by 0 to 7.

E.A.W.

RHODES HOUSE SCHOOL 2ND (away), Nov. 13th. -- As our 2nd were so greatly out-sized by the 1st XI. of this School, matches were arranged with their 2nd, of which the one on above date was the first. But it is evident that Rhodes House does not treat football matters with sufficient seriousness, for instead of a genuine XI. of the School, our boys were pitted against a team composed partly of Rhodes House boys and partly of any chance players who could be picked up on the ground, the latter out-numbering the former. Further, we have to complain of the extremely bad form shown by our opponents and their supporters, for not only were players changed several times during the game, but the onlookers made frequent incursions upon the field, rushing in several times to prevent our side from scoring. This disgraceful state of things was, however, endured for the greater part of the time by our side, and it was not till about ten minutes before time, when matters came to a head, that Wilde took his men off the field, our side then leading by 2 to nil. The match must, therefore, be considered abandoned, and is not taken count of in the table of results.

HULME GRAMMAR SCHOOL, MANCHESTER, 2ND (home), Nov. 20th.—Manchester won the toss, and elected to play with the wind. In the first ten minutes Waide, our right-outside, sprained his leg, and was unable to take further part in the game. Soon after this the School left-wing dribbled the ball down the field, and Harrison scored the first goal. After an interval of even play Manchester equalised, but shortly before half-time Harrison again landed the ball between the uprights, and gave our side the lead by 2 to 1. For the first 20 minutes of the second half the visitors had the advantage, and did most of the pressing, finally making matters equal again by a splendid shot from half way. After this the ball was never out of the visitors' half, and Ward was unfortunate in not scoring. But Harrison again shot to the rescue, and so the game ended in a win for School by 3 to 2.

#### RESULTS TO DATE.

	Played	Won	Lost	Drawn	for	Goals agst.
ıst XI	6	I	4 .	I	20	30
2nd XI	4	2	2.	—	. 7	21
Under 14 XI.	5	2	3 .	—	7	24

### LOWER DIVISION.

A full list of fixtures has been arranged for the "Under 14" team, but several matches have had to be abandoned on account of the weather, while twice our opponents have been unable to raise a team. Up to the present six matches have been played, of which three have been won and three lost, a very creditable result, since out of the three losses, in two instances the team was matched against far bigger and heavier boys. Commendable keenness has been shewn by the boys of the Lower Division, and this cannot fail to materially improve the general standard of football in the School. The style of play, however, still leaves much to be desired, each boy, whether in the team or not, should learn the particular duties belonging to his position in the field, and in all practice games steadily endeavour to carry them out, and thus from the very first acquire the correct principles of football. I shall be pleased to lend to any member of the eleven a text book on football, in which the duties of each player are explained in detail. Thorough mastery of these "first principles" will do more towards making a successful team than any individual excellence. W.E.C.

MATCHES.

Sept. 25th, v. Nicholls Hospital. Lost, o 11. This was a runaway match for Nicholls, who out-played us in all points of the game, their combination for young boys was excellent, every player knowing what to do with the ball when he received it, and v hat is still more important, generally succeeding in doing it.

Oct. 9th, v. Field House College 2nd.—The team shewed a good improvement in this match, and were beaten by weight rather than by superior skill. In fact, in the last 15 minutes they did most of the attacking, but the shooting was weak. Tootill played excellently at back.

Result, lost o-5.

Oct. 16th, v. The Blue Coat School.—The game was close and well-contested throughout. Brooks scored in the first half; the Blue Coat School equalised, and Garfitt added another goal for us just before the call of time. Result, won 2—1.

Oct. 23rd, v. Wellington School.—Our team was again out-matched in weight, and were defeated by 5 goals to nil. In justice to them, however, it must be said that of our opponents only two or three were bona fide members of Wellington School.

Oct. 23rd, v. Bowdon College "under 14."—A pleasant and evenly-contested game ended in a victory for the School by 2—1. F. Young and J. E. Wood scoring the goals. N. Taylor, Tootill, J. B. Wood and Garfitt all played well.

Dec. 4th, v. Hulme Grammar School, Man-

chester, "under 14."—In the first half the Manchester boys pressed, and on changing ends the score was 1—0 against us. After this, however, the School team playing well together had much the best of matters, adding 5 goals (Garfitt 3, Broomhead 1, West 1) to our opponents 1. Final score: Oldham Hulme School 5 goals, Manchester Hulme School 2 goals.

# Debating Society.

On October 1st, the Debating Society met for the first time in the autumn season of 1897. The President of the Society was present, and he addressed a few remarks to the members, suggesting among other things that the debates might be varied by having a paper read instead of the speeches of the proposer and opposer. B. W. Lees then moved "That the action of the Employers' Federation in the present crisis is justifiable"—the case being limited as far as possible to Oldham. The proposer's chief argument had reference to the fact that the reduction in hours of working was harmful to trade, and that seeing that the men had started to strike in London, the only way the masters could prevent this damage to trade was by combining and locking out the men. W. L. Middleton opposed the motion, saying that in the case of Oldham, owing to the general system of piece-work, the eight hours a day was not required. After this member had concluded, W. E. Millington seconded the affirmative, and as the opposer's seconder was absent, the debate was thrown open. Mr. Greenhalgh spoke in favour of the masters, referring chiefly to the masters' disputed right of introducing what machinery they liked. Several other members spoke for the motion, but the debate did not prove as good as it might have been on account of the lack of opposition. After the final speech of the proposer, the house divided, resulting in a majority of seven to two for the affirmative.

On October 15th, a paper upon the British Colonies was read by W. E. Millington, after which he proposed "That the further expansion to the British Colonies is necessary and desirable." The motion having been seconded by B. W. Lees, the chairman, Mr. Cross, called on a member to oppose. Mr. Greenhalgh responded, urging that instead of expanding the Colonies it would be more advisable to consolidate them. The discussion was then carried on pretty freely, as the sides were very equally matched. W. L. Middleton supported the opposition, taking Rome as an example of a state whose expansion proved its ruin. After C. J. Lees had replied to this, Mr. Cross spoke against the motion. He con-

sidered the empire already far too unwieldy, and the money spent on Colonies, he thought, might be better spent at home. After a few more words from other members, the chairman called for the votes, the proposer's motion being carried by five to four.

The debate upon "Professionalism in sport," which took place on November 11th, attracted a rather larger gathering of members than usual, though few of these took an active part in the The chairman called on Mr. Pardoe to propose the question, which was: "That professionalism is contrary to the true interests of sport." He pointed out in particular that sport in all public games, and especially in football, had become a mere business. W. L. Middleton opposed. He held that without professionalism, the county matches, which are both instructive and amusing, could not be continued; professionals, he thought, did play for the love of sport, since the pay was not good enough to induce them to take it up as a business. The affirmative was seconded by F. J. Whitmore, and the opposition by B. W. Lees. The subject, however, seemed soon exhausted, and after C. J. Lees had spoken for the opposition, the proposer was called upon to make his final speech. The motion was then put, and carried by a majority of eight to five.

On November 26th, the discussion was opened by F. J. Whitmore, who proposed "That the Public School system of fagging is unobjectionable." The debate which followed was rather feeble, as the members did not seem very intimate with the details of the present fagging system. C. J. Lees, in opposing, considered that even the Upper boys in a school were not old enough to use their authority over the fags in a proper manner. B. W. Lees seconded the proposer, and W. E. Millington continued the opposition, remarking that he thought there was no reason why the Upper boys should not do as much for themselves as the Lower. Beaumont then spoke against the motion, and Mr. Cross in favour of it, the latter pointing out that the prefects in a large public school were always chosen from the best disciplined boys, and therefore had a good influence on their fags. The fags also, he said, benefited greatly from the lessons of obedience that they had to learn. The proposer then replied, and the motion being put before the house was negatived by six to two.

Hon. Sec.

THE Editor acknowledges with thanks the receipt of the Giggleswick Chronicle, Sheffield Royal Grammar School Magazine, and of the Hulme Victorian, during the term.

# Speech Day.

THURSDAY, AUGUST 5TH, 1897.

THE Second Annual Speech Day at the School was celebrated on Thursday, August 5th. The Dean of Manchester had kindly consented to present the prizes, and there was a large attendance of visitors. Mr. Alfred Emmott took the chair, and with him on the platform were Mrs. Emmott, Dean Maclure, Mrs. Maclure, Canon Rountree, Alderman Noton, and Mr. I. Bamford.

The proceedings began with the singing of the School hymn, Veni Creator Spiritus, by the boys. The second item on the programme was the speech of the chairman. Mr. Emmott, after giving a hearty welcome to the Dean of Manchester, proceeded to make a business-like statement of the position in which the School stood financially. As Mr. Emmott himself said, however, "it is somewhat difficult when one has to deal with business matters to avoid being rather dull," and consequently this part of Mr. Emmott's speech was of little interest to the boys, who hate anything dull. When, however, Mr. Emmott went on to speak of the need of a good cricket pitch, and to express a hope that in the not very distant future this want would be supplied, then the applause from the boys assembled at the back of the hall was tremendous.

The speech of Mr. Andrew, our head master, consisted of a very exhaustive report of the work done in the School during the past year, together with a general sketch of the progress of the School since it was opened in 1895. Mr. Andrew mentioned the success of most of the candidates for the Lower certificate in the examination by the Oxford and Cambridge Joint Board. He also gave the principal results of the examination of the School by the same board of examiners. Mr. Andrew next referred to the want of a gymnasium and of a good cricket field, properly laid and drained; since for the purposes of scientific cricket, he said, our ground was utterly useless.

The Dean of Manchester, on rising, was received with great applause. The Dean remarked that it gave him great pleasure to notice the cordial relations existing between the masters and the boys. He also complimented the governors on the interest they took in the School, and hoped that every year their interest in the School would be deepened. Dean Maclure then gave a short address to the boys, in which he reminded them that the future of the School depended upon them. The boys, he said, should seek by their manners and courtesy, in School and in the street, to make and maintain the reputation of the School. The Dean then presented the prizes.

After a vote of thanks had been awarded to the

Dear very interesting—perhaps the most interesting—part of the ceremony followed. This was the representation of two scenes from "A Midsummer Night's Dream," by the boys of the Upper forms. The parts were allotted as follows: Theseus, Young E.; Hippolyta, Lees C. J.; Lysander, Middleton W. L.; Demetrius, Millington; Philostrate, Cartwright; Prologue, Lees B. W.; Pyramus (Bottom) Whitmore; Thisbe, Taylor F. C. W.; Quince, Tetlow; Lion, Young H. G.; Moonshine, Middleton; Wall, Wilde; Dog, Andrew.

It it almost needless to say that everything went oil well, and after the vote of thanks to the chairman had been passed and acknowledged, the proceedings terminated in hearty cheers from the boys for the Dean of Manchester, the Governors, the Visitors, the Head Master, the Assistant Masters, and the Holidays.

# Mathematical Curiosities.

A Greek philosopher failed to understand how motion could ever take place. In our May number the source of his error was laid bare. Can any of our readers point out the flaw in the following argument of another philosopher, who demonstrated that one body can never overtake another?

Archilles goes ten times as fast as a tortoise. They start, the tortoise being ahead. By the time, however, that Archilles has reached the spot from which the tortoise started, the latter is, of course, somewhere else; and by the time Archilles has arrived at this second point, the tortoise will have moved on to a third position, which again Archilles will only reach to find that the tortoise has departed—and so on for ever. Therefore, Archilles can never overtake the tortoise.

How is it that mud does not leave the back wheel of a bicycle when it could drop down from it? Why does it cling on until the part of the wheel to which it is attached reaches the upper part of its revolution, thereby leaving at the very time when it will be thrown on to the back of the unhappy rider who has failed to provide himself with a mud-guard?

APPARENTLY the existence of the scalene triangle is a myth. At any rate the proof given in our July number that every triangle is isosceles, has raised no protest on the part of our readers. The Editor will be glad to hear from anyone who is able, to give reasons for still holding the strange belief that two sides of a triangle are not necessarily equal.

How can a gilded sphere be sliced into ten parts so that each part may contain an equal portion of the gilding?

THROWN on a desert island—not in the tropics—in broad daylight, without any instruments, how is it possible to tell at once whether the island is north or south of the equator?

## North Wales.

I SPENT last summer holidays in visiting places of interest in North Wales, and made Llandudno the headquarters. The first week, commencing the 30th of July, was one in which the sun beat down with the greatest force. Not a breath of wind stirred. Everybody sat still and "melted" in the broiling sun. After the first week, Conway was visited. It contains one of the finest castles of Great Britain, which has some magnificent Two other interesting features of Conway are the Tubular bridge and Suspension bridge. The L. & N. W. Railway passes through the former, which has two distinct tubes—one for the "up" and another for the "down" lines, to and from Holyhead. The noise while passing this bridge is almost deafening. The latter of these two bridges is a few yards lower down the stream, and is a noble structure.

I think that the most interesting feature of my holiday was the ascent of Snowdon. This was accomplished by means of a circular tour from Llandudno to Snowdon Station ("Toy" Railway) via Bangor, Carnarvon, and Dinas Junction, where the "Toy" Railway commences. The "Toy" Railway is unique; the gauge of it is from 2ft. to 21ft. wide. The carriages, too, are not much bigger than a good sized cab (hence the word "Toy"). Proceeding from Snowdon about mid day, we started the ascent about 12-30. We did not take a "guide." From Snowdon Station to the summit is about 3 miles. About a quarter of a mile from the top is that part called "the saddle," which is a narrow strip of land about 21sft. wide and nothing on either side to prevent one from falling between two or three hundred feet. On reaching the summit there are two edifices called hotels (?). After a splendid view of Anglesea and the straits, from the summit, which was enveloped in an extremely thick mist, we started the descent, and walked from top to bottom in a drenching rain. The descent was made on the Llanberis side, 5 miles down. We returned home wet through, but having accomplished one of Great Britain's mountaineering

The next tour, also made from Llandudno, was "up straits." You take the train to Bangor (which has a very poor Cathedral), and thence

from Bangor pier to Garth, in Anglesea. We proceeded on the Anglesea side to Menai Bridge. This is supposed to be one of the finest walks in North Wales. Arriving at Menai, we crossed the Suspension bridge, within a few yards of the famous Tubular bridge similar to that at Conway, and within a few yards of Llanfaerpwllgwyngygogerchwyrndrobwllyschogogoch, that charming village with a charming little (?) name. leave it to my readers to pronounce this "crackjaw," and to find its meaning. A walk round the Great Orme was also taken; it is a magnificent walk, right round the marine drive. A visit to the top of Orme was much enjoyed, although to arrive there is no easy task. On the top is the quaint little St. Tudno church, where, as at Kirk Braddon, the service is held on the tombstones. I saw all the sights of Llandudno, which has a fine pier and pavilion.

One more tour I took, to Bettws-y-Coed, where are the beautiful Swallow falls, the finest in Great Britain next to the Clyde, and Miner's bridge. Proceeding in the other direction, Conway falls with its Salmon leap and Fairy falls were visited, as well as Waterloo and some Roman bridges. This terminated a delightful month's holiday.

While in Wales I saw some old faces which I recognised as having seen at School.

Viator.

# A Visit to the Iron-Works.

Some few months ago the boys in the two Upper forms of the School had the pleasure of visiting Messrs. Platt's iron-works. We started from the School and went down to the offices, and there awaited someone to guide us round the works. These gentlemen soon came, and then we had to walk a good long distance before we came to the part of the works which we first visited. In this part of Platt's works there were different furnaces, which were used in the preparation of iron. The iron was not made here from the ore, but only prepared for being made into machinery. A little further on we saw a man open a door, on the other side of which was a large fire in which was an enormous lump of iron at white heat. This the man got out with a pair of tongs, and then wheeled it to a steam hammer. This hammer was worked by steam, and when it came down on the lump of iron-perhaps with a blow of several tons, you could see the iron flatten considerably. The men who work these hammers are so accustomed to them, that in some cases you can put your watch upon the pedestal and they will bring the hammer down quickly to within half-an-inch of it.

Still walking on we came to a machine which was used for cutting iron. A man put a piece of iron on one of the cutters, and then another, worked by an engine, came down and cut the iron just as a pair of scissors cuts a sheet of paper. There was one thing to be noticed about this machine, and that was that the iron after being cut became very hot; this was caused by friction. Next we came to some huge rollers which were used for rolling the iron when it was hot, into long strips. We now came out of this part of the works and came back a little way towards the offices again. Before we had gone very far we went into a shop where they were making all kinds of wooden things. Here we saw a machine which was cutting a large log of wood into several planks at once; this was done by means of several saws fitted into one framework which moved up and down, and in this way cutting the log. There were also machines for making the shavings which are used in the packing of machinery when it is sent away. There were also other machines, such as planing machines and circular saws. Near this shop there was a large building which was heated to a high temperature, and was used for drying logs of wood. Leaving this shop, we went into a place where casting was being done. Here iron in the liquid state was run out of a furnace into a large ladle, which was wheeled to a mould, where it was turned over and the iron allowed to run out until the mould was full. Solid iron is put into the furnace together with some coke, which is lighted, and air is then blown into it by means of a fan. The heat produced melts the iron. In the next place we went into there were a large When we first looked in it number of lathes. seemed wonderful how anyone could wend his way between all the straps, belts and pulleys; in fact, it seemed like a thick forest. In other shops through which we went at a great speed, we saw planing machines, drilling machines, and many others, both large and small, complicated and The planing machines are used for making a flat piece of iron smooth and putting a true face on it. The drilling machines are used to drill holes in iron.

There were many other engines which we saw, but we went through at such a speed that I forget many of them.

In one shed there were many grindstones and emery wheels in a row, and before them sat men with different pieces and strips of iron, and as they pressed them on the revolving emery wheels sparks flew all around.

We now went along a long passage, through the offices, and home. E. M.