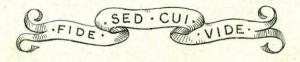
## THE

# Militan Pulmeian.





Vol. I. (New Series).

DECEMBER, 1905. No.

#### School Notes.

HE new Science Wing approaches completion, and we hear that the opening ceremony will take place about Easter next. Occasional glimpses into the mysterious regions beyond the barrier promise a fine corridor and entrance porch, and very light and roomy Library, Workshop, and Science Laboratories.

The New Boys this Term are:—Form IV—W. H.

Form III-E. Billington, J. Brown, W. W. Buckley, A. Cullen, R. T. Ebrey, W. B. Leech, F. E. Marland, H. V. Mitchell, E. Myatt, H. Noble, J. W. Slater, F. Thorpe, J. Wrigley. Form II-W. E. Bennett, A. Buckley, J. H. Noble, Joseph Ogden, John Ogden, V. Spencer, J. Swales. Form I-D. H. Mellor, H. Rowley, H. W. Taylor.

Mr. A. H. Webber, M.A., sometime Scholar and Prizeman of Magdalene College, Cambridge, 2nd Class Honours in Classics, 1898, Senior Classical Master at Liverpool College Middle School, is the new Senior Classical Master. him a hearty welcome, and wish him every success.

We congratulate G. C. Mort and J. Robinson, the first of our Old Boys to achieve their entry into the Professions on passing the Final Medical Examination and the Final Examination of the Incorporated Law Society respectively.

The C. E. Lees' Leaving Exhibition of £60 a year for three years was awarded to J. West; and the School Leaving Exhibitions to E. Winer and W. H. Bagot, each of the value of £30 a year for three years.

They are taking the Honours Courses of the Victoria University in Physics, Mathematics and History respectively.

We congratulate J. West on getting a place in the Assoc'ation Football First XI of Victoria University as a

"Fresher."

The School Societies are doing well. The Debating Society opened Term with more quality than numerical strength, but the numbers and attendance have improved; the members speak well, and can move a vote of thanks, or open a motion in excellent style.

The Natural History Society, thanks to its most energetic Secretary, has made great progress, and has now about a hundred members in its various sections. We congratulate the Secretary and Committee on the management of the excellent Exhibition and Tea.

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#### Cricket Notes.

HE Cricket Season of 1905, taken from the standpoint of the number of actual wins, cannot be said to have been a successful one, but viewed from the other standpoint, we are glad to report that there has been an increased interest taken in the game by the boys, resulting in a greater number playing. The season was marked by more inter-division matches and somewhat fewer matches against neighbouring schools. The inter-division matches showed a better turn-up of boys than the previous year, in which year boys were inclined to be rather slack.

The coaching by members of the 1st XI. was rather neglected, and it is to be hoped that this important branch of the School cricket will be revived during the coming season.

Coming to the 1st XI., as regards batting we were distinctly weak. Birch and Lowe did fairly well. Buckley, Hall, West T., and Grime will all do better next year.

Hutchinson and Mellor J. G. were rather inconsistent. West J. quite failed to reproduce his last scason's form, and Newton's services were lost to the team for the greater part of the season due to an accident at the Sports.

Turning to bowling, Birch bowled consistently well—at times brilliantly—and he was well backed up by Hutchinson and J. West. Lowe did well as a slow change bowler.

The fielding of the team at first was careless, but as the season went on it improved vastly, notably in the Old Boys' match.

Never has the School been so wretchedly served by wicket keepers. We lost a tremendous lot of runs by this weakness.

The 2nd XI., under the captaincy of Fletcher, did fairly well. Smith, Young, Burton, and Winterbottom show considerable promise for next year's 1st XI.

Comment must be made upon the splendid bowling of Mr. Helm in the Old Boys' match, and the valuable stand by Mr. Williams and Mellor J. G. in the same match.

J. W.

SCHOOL v. BURY G.S., at School, June 24th, 1905.

School,—Lowe b Nuttall 5, Buckley b Nuttall 0, West J. b Hodgson 14, Birch b Hodgson 0, Hutchinson b Hodgson 22, Mellor b Hodgson 13, Hall b Hardman 0, West T. b Hodgson 2, Grime not out 0, Young b Hodgson 0, Smith b Hodgson 0, Extras 11. Total 77.

BURY G.S.—Brooks b Lowe 21, Nuttall c Lowe b Birch 0, Hodgson b Hutchinson 0, Hardman b Birch 4, Ainsworth b Birch 16, Hardman b Birch 15, Douglas b Lowe 0, Holt b Birch 5, Clegg run out 0, Collingwood not out 1, Howarth b Lowe 0, Extras 11. Total 78,

#### BOWLING.

	-						
	Overs.		Maidens	s. 1	Runs.	W	ickets.
Birch	8	***	. 0		37		5
Hutchinson	3		. 0		10		1
West J	. 3		. 0		6		0
Lowe	2		. 0		14		3

SCHOOL v. MANCHESTER G.S. 2nd XI, July 5th.

M.G S.—Kay b Birch 1, Marks b Birch 2, Astle c West J. b Hutchinson 6, Young b Hutchinson 0, Crump b Birch 1, Porter b Hutchinson 1, Booth not out 2, Sandbach b Birch 0, Archer b Birch 5, Nichols b Hutchinson 3, Wood c Hall b Birch 0, Extras 19. Total 40.

SCHOOL.—Buckley c Porter b Wood 5, West J. Ibw b Wood 6, Birch c Porter b Wood 1, Lowe b Wood 1, Hutchinson b Archer 1, Mellor Ibw b Archer 2, Hall b Wood 2, Grime run out 2, West T. b Wood 0, Young run out 6, Smith not out 2, Extras 8. Total 36.

	Overs.	Ma	idens	3. I	tuus.	Wickets		
Birch						-		
Hutchinson	, і	****	2		Я		4-	
		*	*					

#### SCHOOL v. OLD BOYS, July 8th.

School.—Mr. Pardoe b Hirst 6, Mr. Ellison b Hirst H. 6, West J. b Hirst 9, Mr. Helm b Unsworth 17, Birch b Hirst 9, Mr. Wight run out 0, Mr. Williams b Hirst 8, Lowe b Lees 2, Mellor not out 21, Hutchinson b Middleton 1, Buckley b Hirst 3, Extras 16. Total 88.

OLD BOYS.—Lees A. O. b Birch 2, Wood J. E. c Birch b Mr. Helm 3, Garfitt C. run out 12, Hirst H. run ont 0, Brierley A. c Mr. Williams b Mr. Helm 15, Middleton W. L. b Birch 7, Stockdale P. c West J. b Mr. Helm 1, Unsworth A. b Mr. Helm 0, Lees J. c Mr. Wight b Mr. Helm 3, Schofield J. st Lowe b Mr. Helm 1, Barlow R. not out 0, Extras 9, Total 53.

	Overs.	M	aidens	. 1	tuns.	w	ickets	١.
Mr. Helm	6.5		1		23		6	
Birch	7		0		21		2	
		*	*					

SCHOOL v. HULME GRAMMAR SCHOOL, Manchester, July 15th.

School.—Lowe run out 12, West J. Ibw b Howard 36, Birch c Turner b Bradbury 1, Hutchinson b Williamson 2, Grime run out 8, Young c and b Howard 8, Fletcher b

Walker 3, Smith b Howard 0, West T. b Walker 2, Winterbottom c McAdam b Howard 2, Viner not out 2, Extras 4. Total 80.

H.G.S., MANCHESTER.—Bucklan 1 c and b Lowe 47, Turner F. lbw b Hutchinson 4, Bradbury run out 5, Howard c West J. b Lowe 32, Dearnaley c Young b Lowe 5, Walker not out 10, McAdam not out 1, Extras 15. Total (5 wickets) 119.

	Overs.	M	iden	s. 1	Runs.	w	ickets.
Birch	11		4		28		0
Hutchinson	8		<u>·2</u>		21		1
West J	. 6		1		28		0
Lowe	12		<b>4</b>		22	• • • • • •	3

#### HOUSE MATCHES.

NORTH V. SOUTH.

1st XI.'s. South won by 35 runs. Scores:—17 and 52.

2nd XI,'s. South won by 35 runs. Scores:—61 and 26.

OUT V. SOUTH.

1st XI.'s. Out won by 5 runs. Scores: -- 68 and 63.

2nd XI.'s. Out won by 33 runs. Scores:—61 and 28.

NORTH V. OUT.

lst XI.'s. North won by 12 runs. Scores:—47 and 35.

2nd XI.'s. Out won by 20 runs and 4 wickets. Scores:—18 and 38 for 6 wickets.

#### 2nd Round.

NORTH V. SOUTH.

lst XI.'s. South won by 97 runs. Scores:—74 and 171.

2nd XI.'s. North won by 2 runs. Scores: -63 and 61.

Out v. South.

1st XI.'s. South wen by 83 runs. Scores:—34 and 117.

2nd XI.'s. South won by 8 runs. Scores:—23 and 31.

#### NORTH V. OUT.

1st XI 's. Out won by 14 runs. Scores:—82 and 96.

2nd XL's. Out won.

#### HOUSE CHAMPIONSHIP.

South House	38 points.
Out House	32 ,,
North House	14

#### 1st X1. Batting Averages, 1905.

	Inning	'S.	Rnns.		Highest score.		Times not out.		verage.
West J	9 -		114		36				12.6
Mellor J. G	. 5		53		21*	,	1		10.6
Lowe	9		77		25				8.5
Birch	. 7		57		25		1		8.14
West T	5		37		<b>2</b> 8				7.4
Grime			37		25		0		6.16
Hall E	5		<b>29</b>		14*	٠	2		5.8
Newton			22		15		Ø		5.5
Buckley J			30		10*	. <b>.</b> .	1		4.3
Hutchinson	9		38		22		Ü		4.2
Young	7		19		8		σ		2.5
Smith	3		2		2*		1		0.6
The * denotes not out.									

#### 1st XI. Bowling Averages, 1905.

		Maidens.							
Hutchinson	63		20		119		25		4.8
Birch	82		28		171		29		5.9
Lowe	24.4		9		68		9		7.5
West T	4		0		9		1		9
West J	41		8		113		9		12.5

#### Football Notes.

#### FIRST XI.

v. Hulme G.S., Manchester, October 7th.—Away. In this match we were without the services of Hall and Young, but capable substitutes were found in Horsfall and Sutcliffe. We had the fortune to win the toss, and played with the wind. The play during the whole of the game was very poor, neither side being able to score. The School forwards and backs were quite off form, but Lowe in goal played a fine game.

- v. Bury G.S., October 11th.—Home. We were still without Hall and Young, Horsfall and Platt taking their places. No description need be given of the gan e, suffice it to say that we were completely outplayed in every point. The School team again had an off day. In the first half Bury scored 4 goals, and in the second 5 more. Our only goal came through Smith, who scored in a rather lucky fashion. The game ended in a win for Bury by 9 goals to 1. Scorer: Smith.
- v. Warrington G.S., November 4th.—Away. We looked forward to this match, as we generally have very close games with the Warrington School. For the first time this season we had a full team, but five minutes after the start Fletcher was hurt, and had to retire. For the rest of the game we had only ten men. In the first half our defence was completely disorganised, our opponents scoring 4 goals. The second half was far more even, Warrington only scoring 1 more goal. Final result: 5—0 against the School.
- v. Manchester G.S. 2nd XI., November 18th.—Home. In this match there was a great improvement in the combination of the team. Soon after the commencement West scored from Buckley's centre. Our opponents soon after equalised by means of a penalty. In the second half we scored 2 more goals through Buckley and West. The game thus ended in a win for School by 3 goals to 1. Scorers: West 2, Buckley 1.
- v. Masters, November 25th.—Home. In this match the School played Millward at left back, instead of Barratt. Soon after the commencement West scored for the School. Our opponents tried hard to equalize, but could not break through our defence. Directly after the commencement of the second half we scored 3 more goals in quick succession, through Hall 2 and Hutchinson. During the latter part of the game the play deteriorated very much, neither side scoring again. The game ended in a win for School by 4 goals to 0. Scorers: Hall 2, West, and Hutchinson.

#### SECOND XI.

For the opening match on October 7th we entertained Manchester Hulme Grammar School 2nd XI. Up to half-time the game was very even, both sides scoring 1 goal. On resuming play our opponents, aided by the wind, scored 2 more goals, while we scored one. Owing to want of practice our forwards did not combine well, which probably contributed to the result of 3 goals to 2 against us. Scorers: Taylor 1, Lees 1.

\* \*

The next match was at Bury, where we played Bury Grammar School 2nd XI. In the first half of the game our team as a whole played well, and at half-time we were winning by 3 goals to 2. On resuming, Bury made several fine rushes and scored 5 goals. We scored 1 goal in the second half, but several shots hit the crossbar and goal posts. Bury won the game by 7 goals to 4. Scorers: Taylor 3, Ashton 1.

\* \* \*

November 4th. Home. On this date we encountered Waterloo Science School. Both schools were awaiting this match with great enthusiasm. In the first half of the game we were very evenly matched, and the score at half-time was 1—1. In the second half the contest was even more keen, and we made a plucky attempt to save ourselves from defeat; but owing to the lack of combination between the forwards and the backs, we suffered defeat to the tune of 3 goals to 5. Scorers: Ashton 1, Lees 1, Taylor T. G. 1.

\* \*

Nov. 8th, Against Stand Grammar School 1st XI. Home. In this match our forwards had considerably more freedom than in the previous match, and the combination of the whole team was more marked. At half-time we were leading by 5 goals to 2. In the second half our opponents gave us a much better game, but in the end we came out winners by 6 goals to 4. Ashton played a good game amongst the forwards. Scorers: Ashton 4, Taylor T. G. 2. C. H.

On December 4th the following boys were granted their 2nd eleven colours, with all the privileges accompanying them:—Smith, Fletcher, Sciville, Burton, Millward, West T., Young R., Hall E., Buckley J., Taylor T. G., Ashton, Dawson, Horsfall, Platt, Barratt, and Millington.

After the Old Boys' match, 1st eleven colours were awarded to Fletcher, Smith, Buckley J., and Burton.

#### Football Review.

Only two old colours, Hutchinson and Lowe, were left. but with such stalwarts as Burton, Young, Fletcher, and Smith to fall back on we faced the season, if not with blatant confidence, at any rate without internal sinkings. memory of the past two seasons was with us to spur us on. But fate has been against us. For the first month we were without Hall and Young, with the result that the team never settled down. Halves and forwards were chopped and changed, and there was no cohesion between the parts. team was not a machine but a collection of units. After the Bury match, however, things brightened. A capable centre was found in Hall. Hutchinson, on whose play the cares of office had certainly had an injurious effect, found his last season's form-indeed one of the brightest features of a rather sombre season has been Hutchinson and Buckley's play on the right wing. West, at inside left, has played pluckily, but is too small, and Young, while filling the outside place with varying success, would do much better if he would drop his dolce far niente style and put his back into the game. He doesn't convey the impression that he really cares which side wins.

The halves have been good, without dazzling us by their brilliance. Sciville, perhaps, knows the game best, but he lacks strength. Fletcher and Smith have got through a powerful lot of work—the Warrington result would have been different had not Fletcher been laid out in the first five minutes.

The introduction of Millward for Barratt at back has strengthened that division very much. Burton is very reliable. Lowe has been a tower of strength in goal, and has improved in style and finish very much; his place will be extremely difficult to fill after Christmas.

One final word. Signs are not wanting to show that the team is coming on. Cultivate a spirit of keenness and enthusiasm, and we will show some of these teams next term how football should be played.

Are we downhearted? No!

## Debating Society Notes.

Debating Society commenced another session on

October 2nd. Most of the officers retain their former positions, and Fletcher was appointed Whip in place of Viner, who has left. Mr. Wight resigned his position as Vice-president, and Mr. Ellison was unanimously elected to fill the position thus vacated.

On October 2nd Mr. Earnshaw opened the session by a paper on "The Elizabethan Voyages of Discovery," which was very well received.

On November 6th the subject "That a universal language should be adopted" was proposed by Platt, who urged that the adoption would give a great impetus to commerce, and that much time and money now spent in learning languages would be saved. More time could then be spent on mathematics and science than at present. Hassall, in opposing the motion, pointed out the insurmountable difficulties in the way, and declared that the greatest masterpieces of literature would be lost or mutilated by translation. After some discussion, in which Mr. Ellison, Mr Pardoe, and Smith took part, the motion was lost by 7 votes to 4.

The Parliamentary Debate, fixed for November 20th, was abandoned.

On November 27th the subject "That Bacon wrote the

works attributed to Shakespeare" was proposed by Lowe, who said that Bacon was a man of undoubted intellect, whereas Shakespeare knew "little Latin and less Greek." Was it likely, he asked, that a half-educated man could have written such sublime works? Again, Shakespeare wrote the history of all the later English kings, Henry VII. Henry VIII., Richard III., etc., but omitted Henry VII. By a curious coincidence (?) this was the only history which Bacon wrote. The proposer then gave some remarkable parallels from the works of each man.

Smith, in opposing, declared that the theories of the two men about love were very different, so different, in fact, that they could not be written by the same man. Why, he asked, was the suspicion of the falsity of the plays never mentioned by any contemporary? The historical plays were not written in chronological order, and it is highly probable that it is not a curious coincidence that Henry VII, was omitted, but due to Shakespeare's death. The styles of the two writings are different, and could any one man write such a large amount of the finest literature as the combined works of Shakespeare and Bacon?

After some debate, in which Mr. Ellison, Fletcher, Hall, Horsfall, Young, Platt, and Hassall took part, the motion was lost by 9 votes to 7.

H. H.

#### Natural History Society Notes.

HE Annual General Meeting of this Society was held on October 9th, 1905. There was a good attendance, including several new boys, who were duly elected members of the Society. The following officers were elected for the ensuing year:—The Headmaster to be President, Mr. Pym to be Treasurer, C. Lawton to be Secretary. The following General Committee was also elected:—The Headmaster, Mr. Pym, Mr. Wight, C. Hutchirson, J. Lowe, C. Lawton, W. Smith, J. Fletcher, H. Kempsey, W. H. Hall, F. Kempsey, and V. Millington.

The Field and Microscopical sections are again under the care of Mr. Pym, whilst the Photographical and Meteorological sections are capably supervised by Mr. Wight.

At the next meeting Mr, Pym showed us some specimens of Obelia, a sea-weed, and described it; the spores were well seen under the microscope. At the same meeting more new members were proposed and elected.

On Friday, November 10th, Mr. Wight gave an interesting paper on Wasps' Nests, which he illustrated by an almost perfect nest which he had obtained, after many attempts. during the holidays; he afterwards presented the nest to the Society. In the course of his paper Mr. Wight pointed out how the nest was built from paper, and also that wasps must have been able to manufacture paper long before men were able to make it. He also said that the nest was spherical in shape, but within the thin outside cover, there appeared to be a series of plates, from which hung hexagonal cells, the opening of which was at the bottom, the grub was stuck to the top of the cell, by means of some sticky substance, until it became a wasp. Mr. Wight then went on to show the differences between the Queen-bee and the Queen-wasp-the bee has all the work done for her, while the wasp has to do all the work herself. He then told us different methods of obtaining nests. Lowe then moved a vote of thanks to Mr. Wight. which was ably seconded by J. Fletcher, which terminated a very enjoyable and interesting meeting.

On Friday, November 24th, Lawton should have given a lecture on "Ants," but we regret to announce that owing to his brother's illness he was unable to do so. At this meeting Lowe was elected to take Lawton's place as Secretary, and Smith was made Assistant Secretary.

We now look forward to the annual tea and exhibition, the probable date of which is Thursday, December 7th. There will be prizes given for the best set of six photographs, and for the best exhibit other than photographs. We have again to thank Mrs. C. E. Lees for the privilege of viewing her splendid collection of chrysanthemums and orchids.

Owing to the building of the new science laboratories, a piece of land on the south side of the school has been made into gardens, in which have been set various kinds of bulbs, and during the spring we hope to have one of the best shows of bulbs in Oldham.

In the last report it was mentioned that we had several specimens of fish; these we have still, but have obtained a new home for them. Under the supervision of Mr. Pym an acquarium has been constructed, having plate-glass sides, with a wooden bottom covered with zinc. It has been made by the younger boys during their Manual Instruction hours.

At the beginning of the summer term C. Lawton and H. Kempsey brought a number of newly hatched tadpoles. They were kept in a large glass globe in one of the class rooms, but appeared to develope slowly. So slowly indeed that when end of term came those that yet survived were still tadpoles and legless. Although attended to by the caretaker, all of them except three died during the vacation. One of these three died in October, having developed so far as to have its hind legs free. Another died in the first week in December with all four legs fully developed, but no diminution of its tail. The third one is still living, but has not yet developed even its hind legs. It is still (Dec. 6th) a tadpole in the third stage of development.

J. L.

## Old Boys' Notes.

tion was held at the School on 24th October, 1905, at which the Hon. Secretary read the following report, the adoption of which was passed unanimously:—

In presenting the Fourth Annual Report of the Old Boys' Association, it is of interest to note the continued

support given by members and officers of the Association, although the Sub-Societies formed did not meet with that success which was desired. The membership does not increase to the extent it should do, considering the number of Old Boys eligible.

The Committee has fixed the sum of £1 10s. as the subscription entitling Life-membership to the Association, and it is considered that this will be of advantage to Old Boys living out of town, as they will be saved the trouble of forwarding their subscriptions annually.

It has also been decided to select Old  $\,$  Boys' colours and badges.

The Fourth Annual Dinner was held at the Prince's Restaurant, and proved to be the most popular function held by the Association.

The usual Cricket and Football matches with the School have taken place during the year, and were very much enjoyed.

At the School Sports held this year the events included an Old Boys' Race and Tug-of-War.

The Second Annual Picnic took place on Saturday, 27th May, to Alderley and Disley, the number, however, although select, was very disappointing considering the beautiful day and the country to be visited. Notwithstanding the smallness in numbers, the outing was a most enjoyable one, and souvenirs in the shape of photographs, taken by a member of the party, will refresh the memory of a half-day's holiday well spent.

The Sub-Societies of the Association, namely, Choral, Dramatic, and Gymnasium, have not met with that success which was anticipated when they were formed, and in view of the lack of adequate support given it, will probably not be considered advisable to form Sub-Committees to such societies during the coming year.

It is again the desire of the Committee to place on record its appreciation of the untiring efforts of our President, Mr. Pickford. The interest which he has manifested to further the progress of the Association ought to be an incentive to all.

Our thanks are also due to Mr. Pym and Mr. Pardoe, the Vice-presidents, and the members of the School Staff, who have by their presence and advice shewn that practical interest which should encourage all the members to give their best support to the Association and help to make it progressive.

Mr. A. J. Webber, a new member of the School Staff, has been elected an hon. member of the Association.

It is desirable that more Old Boys take a deeper interest in the School Magazine by contributing articles of interest to it, which many of them are capable of doing if they will only take the trouble, and not leave this duty to one or two members.

Is it not really time that the Debating Society was resuscitated? Are the Old Boys to be surpassed by the School?

Hearty congratulations to G. C. Mort and J. Robinson who have recently passed their final examinations for the Medical and Law Professions respectively. We believe they are the first two Old Boys to attain these distinctions and wish them every success in their future career

### The Rise of the English Drama.

INTERNATION OF PRESENTATION OF

possession of few besides the clergy. The common people were unable to read, and books were almost unknown. This the Church realised, and produced a kind of rough play in order to teach the people some of the stories contained in the Bible. These Plays were acted by the clergy themselves, often in the monasteries, and became known as Mysteries or Miracle Plays. They became exceedingly popular, lasting up to the middle of the sixteenth century.

Although of no great literary value, they are important because they created a demand for dramatic representation.

From the Miracle Plays developed the Morality Plays, which presented allegories, *i.e.*, the characters personified the various vices and virtues. The comic element was provided by the character of Lucifer, the direct ancestor of our modern clown. The object of these Plays was changed from religious to social and political ends. Although these were a great improvement on the Mystery and Miracle Plays, the dialogue was stiff and altogether unlike natural conversation. The Morality Plays survived till late in the sixteenth century.

The next form of dramatic representation was the Interlude, in which the secular and comic parts were developed, and the religious or semi-religious motives of the plot were less apparent. The dialogue also was much improved.

After these came the Masques, "feasts for the eyes instead of the mind." They were of little literary value, being something like our modern ballet.

To none of these does the Elizabethan drama owe its origin. While these were forming, other playrights were writing Plays on foreign models, chiefly Classical and Italian. Sackville and Udall modelled their Plays on the Latin School of Plautus, Seneca and Terence, while Whetstone and Gascoigne copied theirs from Italian sources. The English. Latin and Italian Schools blend together before any masterpiece appears. This is the state of affairs when Elizabethan drama begins. The "University Wits"-Lyly, Peele, Greene, and Marlowe-now begin to write, each improving the drama in his own way. Lyly relieved the stiff blank verse, by interweaving scraps of verse. Peele introduced a sweet smooth melody. Greene introduced the romantic spirit into English comedy. Marlowe practically made blank verse and was our first great tragic writer. It was he who opened up the way for Shakespeare. H. H.

#### Natural History Society's Conversazione.

VERY bright enjoyable evening was spent on Dec. 7th, when the Natural History Society held its Annual Tea Party and Conversazione. At the Tea Party itself everything was excellent, including our appetites, and it was

with a deep sense of appreciation that Smith proposed a sincere vote of thanks to Mrs. Pickford, Mrs. Pym, and Miss Hyde for their tender care for our creature comforts. In this he was ably seconded by Lowe, and the proposition was instantly and audibly carried.

In the Big School we were not at all at a loss for something to do. The great majority of members had brought something for exhibition, and as a consequence there was plenty to be seen.

Dealing with the competitions first, Hutchinson won the Headmaster's prize by a capital show of six recent photographs; Taylor T. G. received honourable mention for his exhibit. H. Kempsey won Mr. Pym's prize in the Birds' Egg and Butterfly Class, by an excellent collection of British Birds' Eggs, and also received honourable mention for his case of Butterflies and Moths. The Society's Prize fell to the brothers H. and J. H. Noble for their arrangement of a collection of Lias Fossils. The other exhibits were far too numerous to mention in detail but were all interesting. We must, however, make an exception in favour of the collections of mounted sea weeds kindly lent us by Mrs. Hutchinson and Dr. Ed. Kershaw. Both collections were admired by everyone.

Mr. Pickford then gave a Lantern Exhibition and showed a capital series of pictures illustrating Radium and its action. Fletcher brought and showed a set of slides representing scenes in Holland and Belgium, photographed by his brother. Mr. Wight showed a series illustrating the Life History of a Plant, and another set showing Cotton in its various stages of growth. There were other side-shows such as that of Electrical and Light phenomena. Altogether it was a most

successful and enjoyable evening. It should have been stated earlier that the society now consists of nearly a hundred members. In fact more than a hundred sat down to tea, so the ladies certainly deserved the vote of thanks accorded them.

#### The Smoke Question.

(Paper read to the Debating Society.)

T is quite unnecessary for me to explain to Oldham residents what is meant by the Smoke Question. It is a matter which so intimately concerns every one of us that it is impossible not to be interested in it. The evil effects of our soot-laden atmosphere are felt by us all, though we frequently get so accustomed to the usual state of things that we scarcely notice them. It is when we take a holiday and breathe pure air for a time that the contrast is most sharply brought before us. We find that it is possible to get a view which is not limited to a few hundred yards from the place where we happen to be, and that it is possible to handle objects that have been exposed to the atmosphere without fear of soiling the hands; in fact the remarkable cleanliness of my own hands is always a source of mild astonishment to me for a few days after I leave home.

But we must not imagine that the Smoke Question is altogether a modern one; that is not at all the case, though we must admit that of late years it is one which has become more acute. It dates in fact from the time of the introduction of coal as a fuel; and almost from that time, attempts have been made to compel the users of coal to abate the nuisance caused by its smoke. For instance, 600 years ago, King Edward I. issued a proclamation that no coal fires should be used in London during the time that Parliament was sitting, so that the health of the members might not be affected during their compulsory residence in Town. Elizabeth made a similar proclamation. Again in 1648 the citizens of London

petitioned Parliament to prohibit the importation of coal from Newcastle, on account of the evil effects of the smoke from coal fires.

Nothing further, however, was done till the year 1819, when a Select Committee of the House of Commons reported upon the Smoke Nuisance. Another Committee report was made in 1820, and since then various acts or clauses of acts have been passed, trying to deal with the matter, but without much success. In fact the Smoke Nuisance has been growing worse and worse from year to year.

It is quite unnecessary for me to enumerate to you the various evils arising from the presence of smoke in the atmosphere. You all know them too well. I will only classify them under three heads, and leave you to fill in details: I.—Injury to health. II.—Injury to vegetation. III.—Injury to architecture.

There is one point upon which I must just touch, and that is the influence of smoke on fogs. Fogs occur everywhere, in the country as well as in the town. But whereas in the country they are white, tasteless and odourless, in towns such as ours they are yellow to black in colour; their taste you all know too well, as well as the stinging sensation which they produce in the nostrils.

It is well known that a fog can only be produced when there is some minute particle of matter in the atmosphere, to act as nucleus for the condensation of a water globule. Now the minute soot particles perform this office and give their characteristic colour, taste and smell, to the resulting fog.

In Leeds Dr. Cohen calculated that every 100 feet of air contained 1.2 milligram of soot, and that every day 20 tons of soot were projected into the atmosphere of that town.

The smoke of Oldham arises from two sources: (a)—Domestic fires. (b)—Boiler fires used for raising steam.

It has been said that more than half the smoke is caused by domestic fires, but this is doubtful, although far too much smoke is produced in this manner, and as it does

not escape by high chimneys it hangs about more in the streets. Still we must remember that most towns in which no manufacture is carried on have quite a pure atmosphere, so that it seems that smoke from the boiler fires is the offender.

Now, what is this smoke? It appears to consist of particles of impure carbon, which are of a sticky nature, and so are capable of adhering to whatever substance with which they come into contact. Example: a smut on your nose.

How are they produced? By the incomplete combustion of fuel. Complete combustion would mean smokeless combustion, because the whole of the fuel would then have been converted into gases.

Coal is, as you are of course aware, a complex substance consisting of carbon, oxygen, hydrogen, nitrogen, sulphur and ash, the two last as a rule being present only in comparatively small quantities. When combustion takes place oxygen and hydrogen combine to form steam, carbon and oxygen combine to form oxides of carbon, sulphur and oxygen to form sulphur dioxide, and the ash is left. That is to say all the coal except the ash is converted into gases. Now although oxygen is present in coal, it is not present in sufficient quantity to convert all the hydrogen to steam and all the carbon to oxides of carbon. Consequently coal, when burning, takes oxygen from the air to help on the combustion; this causes the draught of the fire. But if sufficient air cannot get to the fire, it is evident that some of the carbon will have no oxygen with which to combine. This is the carbon which goes up the chimney as smoke, and some of which clings to the side of the chimney in the form of soot.

It will at once be seen that this is a great waste of fuel. As all chemical combinations are accompanied by an evolution of heat, every particle of carbon which goes out of the chimney in a free state has failed to give up its quota of heat to the boiler. More than this, carbon combines with oxygen

in two proportions forming either carbon mon-oxide (CO), or carbon di-oxide (CO 2). If the former gas is formed there is still incomplete combustion, and the coal does not give up its full amount of heat unless it is entirely converted to CO 2. Then the first problem before the stoker (or fire-beater as he is generally called in Oldham), is how to admit sufficient air to his furnace fire to combine with the carbon so as to form CO 2, and yet not to allow too much to enter. Too much must not be allowed to enter as otherwise some of the heat generated by combustion would be used up in heating the surplus air, instead of heating the water in the boiler. fact some of the heat is always wasted in this way, as the nitrogen, which comprises 77 per cent. by weight of the air takes no part in the chemical combination of combustion. Though it is useful in preventing the too rapid combustion of the fuel, still it is a source of loss of heat since it naturally in passing through the furnace becomes heated itself, and so deprives the boiler of that amount of heat which itself acquires. As an average, every lb. of coal requires 11:56 lbs. of air for its complete combustion, and of this 11:56 lbs. of air 77 per cent, is nitrogen, and all the heat which this acquires is wasted.

Again carbon and oxygen do not combine at all unless they have been raised to a certain temperature. You know that shavings, wood and coal, might remain for ever in a grate without producing a fire, unless you raised a portion of the shavings to a sufficiently high temperature by the application of a lighted match. So it is of no use to allow a great rush of cold air into the fnrnace. That would only cause a lowering of the temperature below the point of combustion, and so cause a loss of heat instead of an increase, accompanied by an increase of the evolution of smoke.

Now all these difficulties can be overcome in one of two ways. (1). By careful and highly-skilled hand stoking, which involves not only the shovelling on of the proper amount of fuel at the proper time and in the proper manner, but also the careful admission to the furnace of the proper amount of air, at the proper time and in the proper manner. Many people assert that this is still the best method. (2). By the use of some mechanical contrivance which either does the stoking or the admission of the air, or both, automatically.

The objection to the first is that it requires a highly-skilled conscientious stoker, and such men are rare. But one need be not at all surprised at their rarity, considering the miserable wages paid to fire-beaters generally, the long hours which they have to work, the enormous manual labour involved in lifting tons of coal from the heap to the furnace, and the conditions of temperature under which such labour has to be performed.

The objection to the application of the mechanical apparatus is the initial cost of such apparatus, and the cost of maintaining it in good repair: the upkeep as it is called, Manufacturers state that the latter very much more than counter-balances the gain of heat from a smaller expenditure of fuel, and this means a reduction of dividend.

A short time ago the writer had the honour to accompany a deputation of the "Beautiful Oldham" Society to the Health Committee of the Borough Council, on the Smoke Question.

We asked the Committee to consider three points:-

First: The reduction of the minimum time during which black smoke may be emitted from a factory chimney. In Oldham, at present, this limit is 4 minutes of black smoke per half-hour.

We pointed out that this was excessive. We based our argument on the fact that there are chimneys which never do emit black smoke. If these mills can be run without such emission, and run at a profit, why should others be permitted to pollute the air. The following week a spinning company was fined for allowing black smoke to escape from its chimney

for no less than  $12\frac{1}{2}$  minutes during the half-hour. The amount of the fine was 20/-.

The second point was: That a permanent inspector should be appointed solely to watch chimneys; and

The third point was: That every factory chimney should be regularly and systematically reported upon.

The Health Committee received us and heard us with attention, and promised to consider our three points.

When I began this paper I intended including some account of boilers of different kinds, various furnaces, and mechanical contrivances dealing with the Smoke Question; but I found that to do this at all clearly would require a paper by itself, so I have confined myself to the general question.

#### Old Boys' Association.

(Reprinted from the Oldham "Chronicle," December 14th, 1905).

HE fifth Annual Dinner of this Association was held at the School on Tuesday, when Mr. Pickford presided over a gathering of \$5 members.

Mr. MILLINGTON, rising to propose the toast of "The School," congratulated the Society on being able, through the kindness of Mr. Pickford, to enjoy for the first time the privilege of meeting at the School. This was only one of many instances of the kindness of the Headmaster and Staff to the Association. He was sure they were all glad to see that it had been found necessary to extend the School buildings, and hoped it would be possible at no remote period to have a room specially set aside for the use of Old Boys. Let them remember that success to the School meant success to the Association, and that in making the School known through the Association they were only making some slight return for benefits received from the School in the past.

Mr. PICKFORD said he had the utmost pleasure in responding for the School, because the School was all right. It had done well in both examinations and athletics. He was afraid he could not vouch for the Old Boys' room in the new buildings, but he could say that there would be a Boys' Library whose shelves would require filling. He trusted that now that Oldham was supporting the School so well the Old Boys would feel it their duty to do something in return.

Mr. WIGHT, proposing the toast of "The Association," said that the connection between the Old Boys and the School must be something infinitely more than a mere dinner or game. They themselves were but the creatures of a moment, but the Society they represented was an enduring one. They owed a debt to the past and the future, between which they formed a connecting link. Corporate action was necessary to accomplish great ends. If they could not be a strong social force they could be an altruistic one, and he looked forward to the time in the near future when the Old Boys would not only be engaged in the philanthrophic work of the town but would be able to supply to its Council members pledged to the be stand noblest interests of Oldham.

Mr. KERSHAW, replying for the Association, said he would do no more than emphasize the remarks of the other speakers and impress upon the members the necessity for each one of them to make it a point of honour to turn up on every possible occasion he was wanted, and not leave it to a few to carry on the work of the Association.

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