

One of its main contentions, however, is this—that hardly any of the colleges at Oxford do much, and that none do more than they are obliged, to encourage natural science by means of their endowments.

I think that if I may be allowed briefly to state what the college which I know best, and the only one for which I have a right to speak, is doing in this matter, it will enable your readers to see that this contention is not universally applicable, and that there are at least some exceptions with regard to which the writer seems very imperfectly informed.

Magdalen College is spending at this moment in the direct endowment of natural science through professorships, fellowships, scholarships, and exhibitions, over £3500 a year, besides maintaining a laboratory of its own, and subsidising in other ways the teaching of natural science both in the University and within its own walls.

We support four professors of natural science. It may be said that we are obliged by statute to do so. That is true, but we were not bound to establish these professorships as rapidly as we have done, and we have been obliged at times to suspend fellowships in order to do so. We have, besides our four professor-fellows, three other fellows on our Governing Body voluntarily elected by the college for natural science.

The writer of the article complains that so few colleges have even a single tutor in natural science. More than twenty-five years ago we started a tutor, and for the last dozen years we have had a lecturer as well in natural science upon our regular staff.

We are not absolutely bound to offer any scholarships for natural science. We have always offered one a year ever since our demys were thrown open, and we have frequently elected two and sometimes three demies in natural science in the same year, and often exhibitioners as well. Of the two senior demies, which are all we can at present afford ourselves, one was elected for natural science.

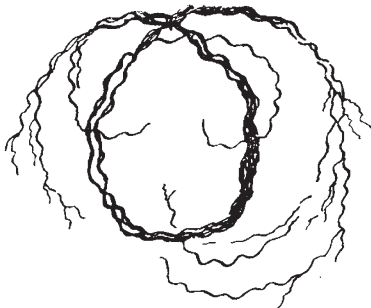
I believe that several other colleges at Oxford could point to facts analogously ignored or underrated by the writer of the article. What I have stated will at any rate, I think, show that my college, which was barely alluded to by him, has not been backward to recognise the claims or encourage by endowment the study of the natural sciences at Oxford.

T. HERBERT WARREN.

Magdalen College Oxford, September 17.

#### A Remarkable Lightning Flash.

ONE of the flashes of lightning during the heavy storm of September 8-9 at Oxford, was of so unusual a form that I venture to send a sketch of it to NATURE. Although a good many of the discharges struck downwards to earth, a considerable number passed horizontally from cloud to cloud, and most of these were very evidently branched at both ends. There had been some six or seven of this character in rapid succession in a cloud opposite the window at which I was sitting, and after a



Lightning Flash at Oxford, at about 12.45 a.m. September 9.

pause of two or three minutes I saw the appearance I have tried to represent. From the red glare by which it was surrounded, it was evidently within the cloud, but it was so dazzlingly bright that the after-image remained visible long enough for me to trace the convolutions and sketch them from memory. The main body of the flash made one complete loop, and the two ends, which were much branched, nearly completed a second turn. It appeared almost due north, about 35° above the horizon, and

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might have been comprised within a circle of about 5° in diameter. Evidently the path of the flash was an irregular spiral, and, with the exception of the branched ends, it looked exactly like the discharge of a large induction coil, seen end on. I much regretted not being provided with a camera.

GEORGE J. BURCH.

21 Norham Road, Oxford, September 9.

#### A Peculiarity in Perch.

I VENTURE to bring the following observation before the readers of NATURE, because I believe it to be uncommon, and that it will be a matter of interest to naturalists. My brother, whilst fishing in a pond in East Lancashire, caught twelve perch, the smallest weighing 3 ozs. and the largest 10 ozs., and eight of them exhibited a very marked peculiarity.

On the left side of the fish the cover of the gill was very small, being only less than half the natural size, and as a consequence a large portion of the gill was exposed. The largest fish presented this appearance.

The remaining four had covers to their gills, perfectly normal and similar on both sides.

The peculiarities about this malformation are that it apparently is confined to the gill-cover on the left side of the head, the one on the right side being perfectly normal; and is only to be found in certain of the fish in the pond.

It may possibly be the result of a disease; but if this is the case, the fact of it affecting always the same gill-cover appears somewhat remarkable, and to my mind is more than a coincidence. Besides every part of the fish, including the gill-cover itself, appears to be perfectly healthy.

The water has no predominant feature, and gives on analysis results similar to any common spring-water. I have known at rare intervals water containing iron to be discharged into the pond, but this has been almost immediately noticed and prevented.

As I have been unable to find an account of any disease exhibiting such a characteristic as above described, I have come to the conclusion that it is a very peculiar malformation of the cover of the gill. I should be glad to have some further information respecting this phenomenon if any reader of NATURE is in a position to give it.

R. J. FLINTOFF.

#### The Siemens Gas and Coke Fire.

I HAVE had a Siemens gas and coke fire in my study for fifteen years. There was much trouble in getting it put in properly, and Sir W. Siemens kindly advised me about it. It burns very little gas, and the coke is cheap. The gas is only used to kindle or liven up the coke. Everybody admires the beautiful fire it makes, and there is no smell and no smoke. The coke requires to be broken to the size of a small apple, and it is needful to clear out the bottom of the fire. I do this with an iron shovel, and thus remove the ash which, without this removal, would choke the fire. It is the neglect of this essential process which makes the Siemens fire sometimes a failure. Mine is, in all respects, a brilliant success.

P. W. CLAYDEN.

13 Tavistock Square, September 18.

P.S.—I read of the grate in NATURE in 1880, saw it at the Smoke Abatement Exhibition in 1881, and adopted it at once.

#### THE LIVERPOOL MEETING OF THE BRITISH ASSOCIATION.

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LIVERPOOL, *Wednesday*.

THE dominant note throughout this meeting has been "Listerism"—the germ theory, the application of biology to medicine. The reception given to the President by the people of Liverpool, especially by the medical profession, has been splendid and enthusiastic. The Philharmonic Hall was crowded to the doors by an attentive and appreciative audience on the occasion of the Presidential Address; and the vote of thanks was most appropriately and happily proposed by the Lord Mayor (Lord Derby), and seconded by Sir William Turner, an early friend and colleague of the President.