In the surrounding district, where larks are equally numerous, I have never detected the peculiar note.

This power of imitating the songs of birds is well known to bird-fanciers and dealers; hence birds taken from the nest are considered worthless by those who admire the natural song. I myself had a Siskin that sang the goldfinch's song, and a nuthatch that I sent to a bird show came back with a wonderful medley of notes, of which he seemed extremely proud, the call-note of the canary and several notes of the blackbird being amongst those I could clearly recognise.

J. YOUNG

Notting Hill

Harrow School Bathing-Place

WILL you kindly allow me to appeal through your columns for suggestions how to cure a nuisance which we suffer from year after year in our bathing-place here, and for which we have as yet found no remedy?

The water which is pumped into the bath from a considerable depth is beautifully clear at the beginning of the season, but as soon as the weather becomes hot and the rays of the sun attain power, countless filaments, consisting of confervæ, &c., spring up from the brick floor of the bath, and push their way rapidly to the surface, the depth of the water varying from about four feet to six feet. As the boys plunge from the side into the water and swim about the bath these long wavy stems are shivered into myriads of fragments, which collect on the surface of the water and form there a disagreeable and ugly scum, which detracts not a little from the pleasure of bathing during a great part of the summer term. We have taken some pains to discover a remedy for this, whether by chemical or other means, but as yet have been quite unsuccessful. The weed reappears in equal exuberance year after year and we are helpless. If any of your readers can contribute to the removal of this annual plague, he would confer a great benefit on the school, and any practical suggestions would be gratefully received either by G. Griffith, Esq., Harrow, or by

ARTHUR G. WATSON

Harrow, April 8

London Clay Fossils

I SHOULD be glad if any of the contributors to NATURE would kindly inform me of any fossiliferous sections of the London clay at present open in the immediate neighbourhood of London. Many of those named in Whitaker's "Geology of London," such as Highgate, Hampstead Heath, &c., are closed, while others at Lewisham, &c., yield no fossils except a few fragments of wood.

HERMANN H. HOFFERT

South Kensington Science Schools, April 15

Meteor

As the meteor of April 2 was seen at Ashwell, Herts, and with much the same course and splendour as observed at Leicester (but without any accompanying sound), it must have been very much further off than your Leicester correspondent imagines.

So bright a meteor, falling so early in the evening, cannot fail to have been much observed.

H. GEORGE FORDHAM

Odsey Grange, Royston, Herts

The Nightingale

IN case you have received no earlier communication to a similar effect, you may possibly think it worth while to record that I heard a nightingale twice on the 14th instant, in a plantation by the side of Hanger Lane, in Ealing. It was but an abortive song, such as the first of the season is very apt to be, as if he were rather shy of the sound of his own voice. But there was enough of it to leave no possible doubt as to the identity of the performer. I may add that I have in previous years heard him in the same spot two or three days earlier than elsewhere in this neighbourhood.

I heard the wryneck ("cuckoo's mate") also several times on the same day in Gunnersbury and Hanger Lanes, having heard him once the previous afternoon (13th) in Kew Gardens.

Gunnersbury, April 16

G. J. PEARSE

FLOATING MAGNETS¹

FOR one of my little books of the Experimental Science Series I have devised a system of experiments which illustrate the action of atomic forces, and the atomic arrangement in molecules, in so pleasing a manner that I think these experiments should be known to those interested in the study and teaching of physics.

A dozen or more of No. 5 or 6 sewing needles are magnetised with their points of the same polarity, say north. Each needle is run into a small cork, $\frac{1}{4}$ in. long and $\frac{3}{8}$ in. in diameter, which is of such size that it just floats the needle in an upright position. The eye end of the needle just comes through the top of the cork.

Float three of these vertical magnetic needles in a bowl of water, and then slowly bring down over them the N. pole of a rather large cylindrical magnet. The mutually repellent needles at once approach each other and finally arrange themselves at the vertices of an equilateral triangle, thus . . . The needles come nearer together or go further away as the magnet above them approaches them or is removed from them. Vibrations of the magnet up and down cause the needles to vibrate, the triangle formed by them alternately increasing and diminishing in size.

On lifting the magnet vertically to a distance, the needles mutually repel and end by taking up positions at the vertices of a triangle inscribed to the bowl.

Four floating needles take these two forms	.	.	.	.
	.	.	.	.
Five " " "	.	.	.	.
	.	.	.	.
Six " " "	.	.	.	.
	.	.	.	.
Seven " " "	.	.	.	.
	.	.	.	.

I have obtained the figures up to the combination of twenty floating needles. Some of these forms are stable; others are unstable, and are sent into the stable forms by vibration.

These experiments can be varied without end. It is certainly interesting to see the mutual effect of two or more vibrating systems, each ruled more or less by the motions of its own superposed magnet; to witness the deformations and decompositions of one molecular arrangement by the vibrations of a neighbouring group, to note the changes in form which take place when a larger magnet enters the combination, and to see the deformation of groups produced by the side action of a magnet placed near the bowl.

In the vertical lantern these exhibitions are suggestive of much thought to the student. Of course they are merely suggestions and illustrations of molecular actions and forms, for they exhibit only the results of actions in a plane; so the student should be careful how he draws conclusions from them as to the grouping and mutual actions of molecules in space.

I will here add that I use needles floating vertically and horizontally in water as delicate and mobile indicators of magnetic actions, such as the determination of the position of the poles in magnets, and the displacement of the lines of magnetic force during inductive action on plates of metal, at rest and in motion.

The vibratory motions in the lines of force in the Bell telephone have been studied from the motions of a needle (floating vertically under the pole of the magnet), caused by moving to and fro through determined distances, the

¹ A note on Experiments with Floating Magnets, by Alfred M. Mayer. Reprinted from the *American Journal of Science*.