

*The Gyroscope: An Experimental Study. From Spinning-Top to Mono-Rail.* By V. E. Johnson. Pp. 52. (London: E. and F. N. Spon, Ltd.; New York: Spon and Chamberlain, 1911.) Price 1s. 6d. net.

THIS is an admirable little book suitable from every point of view as a present for a boy with a mechanical turn of mind. As the extended title indicates, the properties of the gyroscope are illustrated by a series of experiments, always with a view to its application to a mono rail car. The reader is expected to be able to drill holes in metal and tap threads in them and perform simple constructional operations. He is thus encouraged to prepare his own apparatus and make each experiment as he goes along.

The originality of some of the experiments and the conclusions to be drawn from them, the home-made gyroscope, with the flywheel of a sewing machine as centre feature, and the general scheme of the book are all excellent, and any boy who works through the examples will find himself imperceptibly acquiring the gyroscopic sense, and he will greatly enjoy the process. One of the later devices illustrated is an electrically-driven monorail and gyrostat, for further details of which the reader is referred to the number of *The Model Engineer* in which it was first described. No doubt this is the apparatus that was shown at work at the last exhibition organised by *The Model Engineer*.

C. V. B.

*Simple Lessons in Nature Study.* By J. O'Neill. Pp. 122. (London: Blackie and Son, Ltd., n.d.) Price 1s. net.

THIS book comprises about twenty-five lessons on plant characters and ten referring to animals; buds, the work of leaves, the dandelion, birds, the hedgehog, talks on tadpoles, are a few of the subjects discussed. It has been prepared for the use of teachers; as such it has no obvious merit, because it cannot be said to present simple facts and natural inferences in any new light, nor does it penetrate sufficiently deeply into the subject to impart the knowledge required for teaching.

*Aphorisms and Reflections from the Works of T. H. Huxley.* Selected by Henrietta A. Huxley. Pp. 86. (London: Watts and Co., 1911.) Price 6d.

MESSRS. WATTS AND Co. have issued these aphorisms and reflections of Huxley for the Rationalist Press Association, Ltd., by permission of Messrs. Macmillan and Co., Ltd. The price at which the book is now obtainable will, it is to be hoped, make Huxley's clear thinking and lucid expression known to a new circle of readers and send many of them to the complete works from which the apothegms are selected.

*The Flight of Birds.* By Giovanni A. Borelli. Pp. x+40. (London: For the Aeronautical Society of Great Britain by King, Sell, and Olding, Ltd., 1911.) Price 1s. net.

WE have here a translation of the section called "De Volatu" in the first volume of Borelli's "De Motu Animalium," first published in Rome in 1680-81. This is the first time this part of the seventeenth-century classic has been translated into English. The booklet will make an appeal to all who are interested in the conquest of the air.

*Life Histories of Familiar Plants.* By John J. Ward. Pp. xx+204. (London: Cassell & Co., Ltd., 1911.) Price 3s. 6d.

THIS popular edition of a book which appeared in 1908 should prove of service to teachers of nature-study and field botany. The first edition was reviewed in these columns on May 20, 1909 (vol. lxxx., p. 344), and the present issue remains unchanged.

NO. 2163, VOL. 86]

## LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

### The Fox and the Fleas.

THE belief that the fox rids himself of fleas by the device to which Prof. Hughes has directed attention in NATURE is a long-established one. This is shown by the following passage from Allan Ramsay's "Gentle Shepherd," which appeared in the year 1725:—

"As fast as fleas skip to the tate o' woo,  
Whilk slee tod lowrie hauds without his mow,  
When he to drown them and his hips to cool,  
In summer days slides backwards in a pool."

The language is the variety of English which prevailed, and of course still prevails, in North Britain. "Tate o' woo" means tuft of wool, "slee tod lowrie" means the sly fox, and "hauds without his mow," holds outside his mouth.

A. N. MELDRUM.

Hamilton, N.B., April 10.

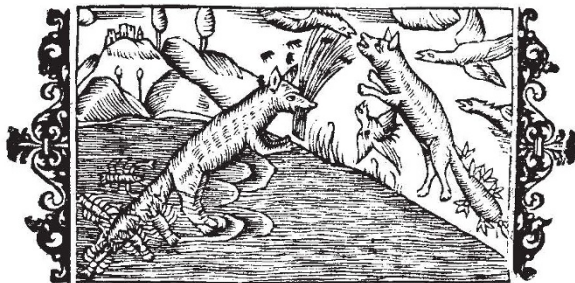
REFERRING to the letter of Prof. McKenny Hughes on the fox and the fleas, in NATURE of March 23, may I be allowed to say that I heard exactly the same story, several times over, in my youth, which means about fifty years ago? I must confess that I thought it had originated somewhere in Gascony, the home of Cyrano of Bergerac. It seems now to turn out to be true. If really authenticated, as Mr. T. Day appears to suppose it, it would be worth while to make its exact authentication known, as it may be looked upon as a most prominent proof of reasoning on the part of an animal.

Paris, March 24.

T. S. GREY.

MANY years ago a few friends were chatting in Kirkby Lonsdale Vicarage, and one of us remarked that almost everybody had within his own knowledge some story that he could not expect his friends to believe. The vicar (Henry Ware, afterwards Bishop of Barrow) told us his story. He was coming out of the vicarage with Archdeacon Evans and the parish clerk, when they saw in the lime avenue in front of them a chaffinch fluttering up and down with the tip of its wing attached to one of the long pendulous twigs of a lime tree. The clerk got steps and a hook or something by which he pulled it down, and they found that the bird's wing was stuck, as they thought, by the honey dew to the leaf, while the play of the twig never let it get sufficient lateral pull to disengage it.

### DE ANIMAL. SYLVES.



### De doloso ingenio Vulpium

My story was that, when I was a boy, walking home along the banks of the Bawddwr, which was then frozen over, I saw a trout through the clear ice and took a shot at it with a stone. The stone made a small hole in the ice, through which the trout jumped out. I thought that the pressure on the ice due to the impact caused an up-rush of water, which caught the trout as he darted away and carried him out head first.

It may not have been altogether the honey dew that stuck the bird's wing to the leaf, and the mechanics of my trout's leap may be better explained, but the stories are true.

So in the often repeated and much discussed story of