

of which can be identified with either of the plants above mentioned.

The glossarist can hardly have supposed that marigold and chicory meant the same thing, but he was evidently lazy as to the meaning of incubus, which occurs again in the following gloss (p. 39): "Cicuta, celena, incubus, coniza vel conium, herba benedicta idem. Gallice chanele vel chanelire; angl. hemelok vel hornwistel."

Gerarde has preserved the name Herb Bennet; the other synonyms we must leave Mr. Mowat to explain. He suggests that the strange name hornwistel may be derived from the offensive smell of the plant. Very likely he is right, but, without any pretensions to philological learning, we may suggest that a hemlock stem is easily converted into a *whistle*.

At p. 156 we have the true etymology of the deceptive name meadow-sweet, "Reginela, Regina Prati, medewort," the English name meaning a plant used for flavouring mead, and altered into meadow-sweet possibly, as Dr. Prior suggests, through some confusion with Regina Prati, queen of the meadow, which name, again, is preserved in the French "Reine des Prés."

Several glosses give the old form of primrose, primerole, a diminutive of Italian *prima vera*, the first flower of spring; and show, moreover, that this name was originally assigned to the daisy, called also *Consolida minor*, of which the German "Ortus Sanitatis" gives an unmistakable figure. The reason evidently was that our primrose is a rare flower in Italy, where the daisy is the herald of spring, but the northern botanists found the name better suited to the flower which now bears it, or to the cowslip, *herba Sancti Petri*.

It is still more startling to find *Ligustrum* (or modern privet) glossed in some lists (though not in this) as primrose or cowslip. But whatever plant may have been originally meant by *Ligustrum*, the name privet, or primet, was, as shown by Dr. Prior, originally identical in meaning and almost in etymology with primrose, being derived from French Prime-printemps = Primprint, primet, or prim. Why the Latin name was at one time applied to the flower, at another to the shrub now thus called, is not quite clear.

A curious relic of ancient medicine is preserved in the gloss (p. 5): "Allium domesticum, tyriaca rusticorum, gall. angl. garleke." Here *tyriaca* = *θηριακή* = *theriaca* (treacle), a once celebrated antidote against snakes and venomous animals. A plant supposed to be the garlick was called by Galen a name rendered in Latin *Theriaca rusticorum*, and so became "poor man's treacle," a name which garlick still bears, though the modern transference of the word treacle to molasses makes it appear absurd.

The medical terms in "Alphita" are extremely interesting, but space forbids entering upon the subject. One curious instance may, however, be quoted, which shows that "there is nothing new under the sun." Only last year Prof. Liebreich, of Berlin, introduced to the medical world, under the name of "lanoline," a new fatty substance for ointments, derived from wool, which has proved a most successful novelty. Now, we find in our glossary the following: "Ysopus cerotus vel Ysopum cerotum est succus lane succide per decoctionem extractus. Qualiter efficitur quere in Dyascorides" (p. 198). *I.e.* "the cerate (or ointment) Ysopum is a 'juice' extracted by boiling

from uncleaned wool. For the mode of preparation consult Dioscorides." This is, in fact, *αἴσνπος*, or *asopus*, mentioned by Dioscorides and Pliny as a fat extracted from the fleeces of sheep, and is practically identical with Liebreich's lanoline.

While thanking Mr. Mowat for this valuable contribution to the history of mediæval science, and the Clarendon Press for their spirited endeavour to make the treasures of the Bodleian common property, we may suggest that there are other scientific relics equally worthy of attention: such, for instance, as some remarkable illustrated manuscripts of anatomy and natural history, or the works of John Arderne, the English surgeon, a relic at least equal in historical value to those already published, and of far greater national significance.

J. F. PAYNE.

OUR BOOK SHELF.

Fresh Woods and Pastures New. By the Author of "An Amateur Angler's Days in Dove Dale." (London: Sampson Low, 1887.)

IN this delightful little volume the amateur angler, who discoursed so pleasantly on the beauties of the streams and fields of Dove Dale a few years ago, recounts his subsequent experiences of country life and amongst country scenes. Angling plays but an inconsiderable part in the present book, but the spirit of the angler is over every chapter—the spirit, namely, which finds placid enjoyment in all the sights and sounds of Nature, and something new and interesting everywhere. His motto is, that the old simplicity of the country "though hid in grey, Doth look more gay Than foppery in plush and scarlet clad." Of this capacity for finding amusement everywhere the chapter on turkeys and peacocks is an example. A battle between two flocks of turkeys is described with much humour; the method in which these birds fight is perhaps new even to persons who think they know a good deal about turkeys; it certainly will be to others. Again, the description of a peacock going to roost is full of quiet fun; few persons, even of those who live in the country, have ever seen a peacock perform the feat of flying into a tree for the night. Yet it is a feat to which great importance is attached by the bird himself; it is only to be done with great circumspection, hesitation, and show of indifference. A score of other topics connected with the country are treated with a like charm. The little book, both in subjects and mode of treatment, is a gem.

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. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

The British Museum and American Museums.

I VERY much regret to learn that my friend Prof. Flower thinks I have done great injustice to the British Museum of Natural History in my article on "American Museums," which has appeared in the September number of the *Fortnightly Review*. The article was sent to England last February, and I had no opportunity of correcting the proofs, as some very bad misprints will sufficiently indicate. Nothing was farther from my mind than to make any reflections on the management or arrangement of the Museum by

Prof. Flower and the able heads of departments, for all of whom I have the greatest respect; and I am further convinced that much credit is due to them for doing the very utmost that is possible under the circumstances of the case. My strictures on the Museum were intended to apply solely and exclusively to the fundamental principle underlying its arrangement, which principle is embodied in the new building as in the old one. I contrasted strongly the principle of moderate-sized rooms as compared with large galleries,—the principle of exhibiting, to the public, on the one hand, strictly limited typical collections; on the other, almost complete series of species,—the principle of making a geographical arrangement the main feature of a museum, as compared with that in which almost no provision at all is made for such an arrangement.

I had always understood that for this fundamental system of arrangement neither the present Director nor the heads of departments of the Museum were in any way responsible, and that in criticising it frankly I should not be considered to reflect on them. So clear was I in my own mind that I was discussing this general system only, that I used some expressions which I now see, with much regret, were capable of being misunderstood. After referring to some of the improvements in the New British Museum, I say, "but the great bulk of the collection still consists of the old specimens exhibited in the old way in an interminable series of overcrowded wall-cases, while all attempt at any effective presentation of the various aspects and problems of natural history as now understood is as far off as ever." To the latter part of this sentence, Prof. Flower objects, as not recognizing the many improvements recently made and still making; but I intended it to apply, as I think the whole context of my article shows, to the *system* and the *building*, which themselves, from the point of view I have taken throughout the article, render any attempt at an "effective" presentation of these aspects and problems impossible. Again, at the end of my article I speak of Prof. Agassiz having said that he intended his museum "to illustrate the history of creation as far as the present state of scientific knowledge reveals that history," and then go on: "It is surely an anomaly that the naturalist who was most opposed to the theory of evolution should be the first to arrange his museum in such a way as best to illustrate that theory, while in the land of Darwin no step has been taken to escape from the monotonous routine of one great systematic series of crowded specimens arranged in lofty halls and palatial galleries, which may excite wonder, but which are calculated to teach no definite lesson." Here I was referring to the fact that the new Museum at South Kensington was constructed and arranged substantially on the same lines as the old one at Bloomsbury, and regretting that the only effective step towards inaugurating a new system of arrangement was not then taken. Prof. Flower, I find, thinks that I imply that no steps are being taken now to render the Museum more instructive and generally interesting. This was very far from my meaning, and I am exceedingly sorry that such an interpretation of my words should have been possible. I visited the Museum several times last summer before leaving for America, and I noted many improvements that were being introduced in all departments; but I could not fail to see that the main principle of the arrangement, both of the building itself and of the collections in it, had not been changed, and it was to this that all my criticisms were directed.

Godalming, September 22. ALFRED R. WALLACE.

The Law of Error.

MR. F. Y. EDGEWORTH has, in NATURE of September 22 (p. 482), replied to Dr. Venn's letter from the mathematical standpoint; perhaps a few words from the meteorological side may not be out of place. The gist of Dr. Venn's remarks lies in his statement that the law of error applies to cases where there are "equal and opposite independent disturbing causes" (September 1, p. 412). Now, the excess and defect of barometrical pressure from the average, depend mainly on anti-cyclones and cyclones respectively, which though in many respects opposite in character are by no means equal, the latter being much more intense than the former; and there is no reason in the nature of the case why they should be equal, as many of their characteristics are so dissimilar.

As regards the second instance given by Dr. Venn, the chief factor in the variations of temperature at different times of the year is the varying declination of the sun, the rate of change of declination passing through two minima yearly—namely, at the

solstices, so named for this very reason. One would naturally expect that about these times the temperature should remain more nearly the same than about the equinoxes; Dr. Venn's curve would consequently give two maxima. The deviations of the temperature of each day from the average would not be unlikely to conform to the law of error, but it is evident that a curve formed from the temperatures for the whole year would be of a totally different kind.

T. W. BACKHOUSE.

Sunderland, September 26.

Lunar Rainbows.

ON Sunday night, August 28, a lunar rainbow was visible here. As the occurrence seems to be uncommon, some particulars may interest your readers.

We had a very heavy shower before 11 o'clock, with a south-west wind. The rain left off suddenly, as it began, a few minutes past 11; and as the heavy cloud moved away to the north-east it left a gloriously clear sky behind, with the moon, then a little past its first quarter, shining brightly a few degrees above a heavy bank of cloud which lay on the horizon. Looking out of a window on the opposite side of the house, I had the satisfaction of seeing a complete pale white bow in the black cloud to the north-east, which lasted very clear and distinct for about five minutes, when it quickly grew faint as the bank of clouds on the horizon began to rise and obscure the falling moon. The outer edge of the bow was well defined against the intense black of the cloud beyond; the inner edge was much less distinct, and the area within was covered with a slight suffused light, which, however, appeared to diminish as the distance from the bow increased.

The drops of rain were unusually large, and the downpour, while it lasted, was extraordinarily heavy.

A. F. GRIFFITH.

15 Buckingham Place, Brighton, September 22.

A LUNAR rainbow was visible here shortly after 11 o'clock last night. It extended without break through three-quarters of a semicircle, the top of the arch being about 60° high. In colour the bow resembled a moonbeam shining between two clouds, and its brightness was sufficient to cause it to be immediately detected by a casual glance, in spite of the presence of numerous white clouds occupying its centre. The sky just outside the bow appeared darkest, probably by contrast with these clouds. Ten minutes elapsed before the rainbow faded.

Rock Ferry, September 27.

S. J. H.

The Perception of Colour.

IS Mr. Stromeyer sure that the observations he made (see NATURE, July 14, p. 246) prove any difference in the rapidity of perception of colour, and that they do not rather show a difference in perception of brightness? It is well known that faint objects are not so quickly perceived as bright ones (see Webb's "Celestial Objects," p. 368 of the 4th edition, under ϵ Pegasi); and as the violet end of the spectrum is much fainter than the rest, the effect described would be produced by the difference in brightness apart from the difference in colour. I have tried Mr. Stromeyer's experiment of rotating the spectrum, and it appears to me that the red as well as the violet end lags behind the middle; though as the red is so much shorter, this is more difficult to see.

T. W. BACKHOUSE.

Sunderland, September 15.

Tertiary Outliers on the North Downs.

IN August of last year (NATURE, vol. xxxiv. p. 341), I ventured to draw a distinction between the unfossiliferous sands found at certain places on the North Downs and the fossiliferous deposits at Lenham. For reasons assigned, I suggested a certain degree of probability of their being of Bagshot age, and indicating a former extension by overlap of the higher beds of that important Eocene formation. This summer I have had opportunities of examining all the principal outliers referred to; and I must say that I am strongly impressed with the Bagshot character of these unfossiliferous sands, and of the well-rolled flint pebbles associated with them, in some cases (as at Headley) in great quantity. I speak only of those which can be identified with