

A peine, croyons-nous, en avait-il trouvé chez ses prédécesseurs un germe presque infime," etc.

(3) For the dates of Adelard's life and writings see C. H. Haskins in the *English Historical Review*, vol. xxvi., p. 491, and vol. xxviii., p. 515 (July, 1911, and July, 1913).

(4) Adelard elsewhere in the treatise explains that the earth, air, fire, and water which we see and feel are not the elements earth, air, fire, and water, but compounds.

(5) The following is the complete Latin text of the chapter. I have used both the printed edition in the British Museum, where the text is sometimes faulty, and the twelfth-century manuscript in the Eton College Library, which is possibly the autograph. The chapter heading reads, "Quare ex vase pleno inferius aperto aqua non exeat nisi prius superius foramen aperiat." The text then begins:—

"Adhuc mihi de aquarum naturis quiddam dubitabile restat. Cum enim tempore ut scis iam preterito anum prestigiosam studio incantationis discende addissemus ibique anilibus imbuti sententiis nescio an sentibus aliquot diebus moraremur, eadem in domo vas quoddam mirabilis efficacie ad horas prandiles afferebatur. Quippe cum idem et superius et inferius perforatum multipliciter foret, aqua etiam ad manus abluendas infusa, dum minister aquarius superiora foramina pollice obturabat, nichil aque ab inferioribus emanabat, ablato a superiore pollice statim nobis circumstantibus per inferiora foramina aqua redundabat. Quod ego, ipsum prestigium esse putans, quid mirum, inquam, si anus dominica incantatrix est cum aquarius servulus monstra pretendat. Tu vero more tuo, quoniam incantationibus studiosus eras, minime illi rei vacare dignatus es. Nunc igitur quid de aqua illa sentis aperta; semper erant subteriora foramina et nichil tamen nisi ad aquarii arbitrium fluebat.

(A) Si prestigium id erat, nature potius quam aquarum violentia id incantatum est. Cum enim huius mundi sensilis corpus quatuor elementa componant, ita ipsa naturali amore conserta sunt ut, cum nullum eorum sine alio existere velit, nullus locus ab eis tum vacuus sit tum esse possit. Unde fit ut, quancito illorum unum a loco suo cedat, aliud absque intervallo eidem succedat, neque potest a loco cedere, nisi aliud quod substantiali quodam affectat amore possit ei succedere. Clauso igitur introitu succedentis frustra patebit exitus succurrentis, hoc itaque amore hac expectatione in cassum aquae reperies, nisi introitum aeri prestes. Haec enim, ut supradictum est, cum non pura sint, ita coniuncta sunt ut sine se esse non possint vel nolent. Unde fit ut, si in vase superius penitus integro inferius fiat apertio, non nisi cum intervallo quodam et quasi cum murmure liquoris fiat effusio. Tantus enim aer intercedit quantum inde liquoris exit, qui quidam cum ipsam aquam porosam inveniatis innativa sibi et tenuitate et levitate penetrando superiorem vasis locum qui vacuus videtur occupat.

LYNN THORNDIKE.

#### The Economic Status of the Blackcap.

IN NATURE of January 7 Mr. W. E. Collinge (for whose work I have the greatest respect) places the blackcap in his list of injurious birds. As at once a gardener and an observer of birds for about sixty years I wish to protest against this accusation, which, if acted upon by fruit farmers, would soon lead to the extinction of the most charming songster of all the true warblers.

I grant that it eats small fruits, especially raspberries, but I contend that the insects it destroys must, from the economic point of view, fully counterbalance these depredations. This, of course, cannot be proved, because all the insects it devours are not injurious,

and the proportion of these will vary in each locality, but considering that the blackcap arrives in this country early in April and does not leave until September, while the season for small fruits lasts practically only from the beginning of July to the middle of August, we have about sixteen weeks when it has to live on insects to six weeks of fruit eating!

Mr. Collinge rightly says that the bird is "not plentiful" (p. 510), but adds that it has considerably increased in numbers during the last eight or nine years (p. 511). To this I must entirely demur—certainly as regards this part of Kent, where much small fruit is grown. It is a bird the clear melodious song of which cannot be overlooked, and as I have been on the look out for it every spring for the last thirty years at least, I am perhaps as competent to form an opinion on this point as Mr. Collinge. I have never more than one pair in my garden, and rarely hear the bird elsewhere. I should say it is not as abundant here now as it was twenty years ago at Colwyn Bay, where I then lived.

ALFRED O. WALKER.

Ulcombe Place, Maidstone, Kent, January 26.

I REGRET quite as much as Mr. Alfred O. Walker to have to condemn the blackcap, but in an investigation of this kind one must always be careful not to allow sentiment or preconceived notions to bias one's opinion.

I have ample evidence that this bird has increased in numbers, at least in the midland counties, during the past six or seven years. I cannot speak for Kent. As to the nature of its food, an examination of the stomach contents of thirty-three adult and four nestling birds showed that the bulk of the food consisted of fruit and peas; there were a few aphids, twenty small lepidopterous larvæ, and the remains of seven beetles. Out-of-door observations made during the past ten years add still further evidence of the injuries these birds will inflict upon wall fruit, currants, strawberries, blackberries, raspberries, peas, etc. During the summer of 1913 I had ample proof in my own garden of the havoc four or five birds can commit on peas.

Mr. F. Smith, of Maidstone, a large fruit-grower and a careful observer, stated in a paper published in 1906:—"A family of blackcaps in a cherry orchard commit grave havoc. They do not eat a quarter of the fruit they pick, and they are also very fond of raspberries and figs. It is the worst summer bird we have in the fruit plantations." This opinion has been confirmed by fruit-growers in all parts of the country.

Where this species is not plentiful or in non-fruit-growing districts, it may be left alone, but in fruit-growing districts it should not be allowed to increase, further, as I stated in 1913, "any attempt at protection will justify fruit-growers in taking vigorous measures for extermination."

WALTER E. COLLINGE.

8 Newhall Street, Birmingham.

#### Names in Mechanics.

IN the current number of NATURE Sir Oliver Lodge refers to the usefulness of naming units, and many of us remember what a clearing up of ideas resulted in the student's mind from the substitution of the term "radian" for the circumlocution "unit of circular measure." I wish to ascertain any names that have been proposed for units in mechanics, and have attained little or no vogue; as instances "velo" and "celo" may be mentioned, which were proposed as names for the units of velocity and acceleration. I wish also to know how far Prof. Perry's "slug" is in use. Can any reader of NATURE help me?

DAVID MAIR.