

### An Alleged Diminution in the Size of Men's Heads

ALLOW me to draw the attention of your readers to a statement which is certainly strange, if true. An opinion is prevalent in the hat trade that the size of men's heads has undergone a decrease within the last thirty or forty years. The following statement has been given to me by a hatter whose name has attained a pre-eminence of a duration of more than one generation. "Five-and-thirty years ago," he says, "when I was a young man, we used to purchase hats for retail trade in the following ratio:—

Sizes ... .. 21—21½—22—22½—23—23½ inches.

Relative number ... 0—1—2—4—3—1

At the present time," he adds, "I am selling hats in this ratio:—

Sizes ... .. 21—21½—22—22½—23—23½ inches.

Relative number ... 3—4—3—1—1—0"

A manufacturer writes: "I should say that heads generally are two sizes less than at the time you refer to. A head of more than twenty-four inches' circumference is now quite a rarity, whilst we make thousands of hats for heads with a circumference of about twenty-one inches." I have received similar statements from other members of the trade, both wholesale and retail, and therefore feel that no further apology is required for bringing them under your notice. Accepting the statement *quantum valet*, I have endeavoured to ascertain whether I could find any explanation or confirmation thereof. I have not succeeded, and therefore venture to ask information or opinions through your columns. The statement comes to me not only from men of experience in the trade, but from men of intelligence and observation exercised beyond the limits of the shop or the factory. It is, I am informed, extensively believed among hatters; it may, nevertheless, be merely a general impression. The diminution, it is said, is observed mostly among grooms and men of that class in the social scale. If this be really the case the change should be noticeable also among soldiers. The diminution is possibly more apparent than real, and may be traceable to alteration in the style of hair-cutting, or of wearing the hat. It has been suggested to me that men of the present generation have from birth smaller heads, dependent upon an alteration in the dimensions of the female pelvis, in consequence of modern fashion in dress. Of this opinion, however, I obtain no confirmation from eminent obstetricians of whom I have made inquiries. The statement then, as it stands, is wanting in explanation, and calls for further investigation. I may here quote the reply sent me by Prof. Flower to my question as to his opinion on the statement made by the hatters "that men's heads were smaller than they were twenty years ago":—

"Before drawing any important conclusion from such a statement it would be necessary to know much about the authority upon which it is made. Who, for instance, are the hatters that make it? Do all hatters concur in the same statement? Is it a mere general impression, or is it founded upon actual arithmetical data? Does it refer to any particular class of men, and does it refer to the same class of men? If it should be true, may it not arise from some change of fashion (if only founded upon the size of the hat, and not of the head) other even than the one you suggest, of hair being worn shorter—such as hats being worn more on the top of the head than formerly (in old-fashioned prints one sees the hat well down over the ears, which is certainly not the case now), or perhaps hats of the kind specified being now worn by a different (perhaps lower) class of the community, or by younger people? All these questions must be considered, and perhaps other sources of error eliminated which may not occur at first, before the statement can be accepted. If the evidence of the statement appears to bear investigation it would be well worth while following it up, as, if true, it would be one of the most remarkable facts with which I am acquainted, that in the space of twenty years a material diminution in the average size of the heads of the same population has taken place—a fact so contrary to all theory and to all experience."

For my own part I confess to some degree of scepticism as to the FACT, and should be glad of an explanation of this, probably only apparent, diminution in the size of men's heads.

Little Park, Enfield, October 26

W. B. KESTEVEN

### The Evolution of the Palæozoic Vegetation

I AM pleased to have elicited the opinion of so distinguished an authority as Prof. Williamson upon Saporta and Marion's

work, and his criticisms, even where antagonistic, will also, I am sure, be received by them with pleasure. Prof. Williamson holds views regarding the interpretation of some of the plant remains which are at variance with those held by most French geologists; but were the correctness of all his views conceded, I do not think Saporta and Marion's theory of the evolution of plants would thereby fall to the ground. A vast array of fact, which is not controverted, has been brought forward in a very able manner, and a connected and well-considered theory as to the nature of the modifications that have led through Cryptogams to Phanerogams is for the first time presented in a concise and lucid manner; and I think few will agree with the professor in deprecating such work because knowledge of the older floras is still incomplete.

J. S. GARDNER

### The Teaching of Practical Biology

IN the interesting introductory address of Prof. T. Jeffery Parker at Otago there is an omission which I am sure my friend would be the very first to wish to have rectified. In speaking of that remarkable development of the teaching of practical work in biological laboratories which will no doubt have a very considerable influence on the pursuit of this branch of science, Mr. Parker makes reference to the considerable services which have been rendered by Professors Huxley and Ray Lankester; but he forgot to say that one who, unfortunately, is no longer among us, provided for systematic teaching in practical work some time before Prof. Huxley was enabled to bring his wishes to fulfilment. The characteristics of this line of study were made known to the general zoological world in 1870, when Prof. Rolleston published his "Forms of Animal Life, being Outlines of Zoological Classification based upon Anatomical Investigation and illustrated by Descriptions of Specimens and of Figures." Prof. Rolleston's system was well enough shown in his preface to that work, where there occurs the following sentence, which I beg leave to quote as germane to this question:—"The distinctive character of the book consists in its attempting so to combine the concrete facts of zootomy with the outlines of systematic classification as to enable the student to put them for himself into their natural relations of foundation and superstructure."

October 29

F. JEFFREY BELL

### The Igneous Rocks of Iceland

LAST year a friend and I rode round the north and west sides of Iceland, and from my observations then I cannot doubt that the conclusions to which Dr. J. Geikie has arrived concerning the south-west of the island apply equally to the more northerly parts. The glacier-scourings on the older lava were especially marked in a district unexplored except by a few Icelanders, and known as the Storisande or Big Sand. This desert lies to the north of Ball's Jokul and Långe Jokul, and between Arnevatn and the River Blanda. As we crossed the undulating surface of the old lava, pale and ruddy in colour, the contrast was very striking where the black basalt seen to rise from the plain in jagged cliffs up to the ice-field which caps these ranges. Where the sand was blown off this pale lava there were the lines of glaciation clearly engraved. The trend of the desert as a whole was towards the north, and the lines of glaciation ran north and south. In the Husavik district we saw, besides these two lavas, the lava of the present century, including that of 1875.

A. J. HUBBARD

1, Ladbroke Terrace, Notting Hill, W., October 31

### Replacing Flint Flakes

WITH reference to the replacing of flint flakes on Palæolithic implements it may be of interest to your correspondent, Mr. W. G. Smith (NATURE, vol. xxiv. p. 582), to learn that I have succeeded in building up a core out of Neolithic flakes. When searching the sandhills at Dundrum, Co. Down, last August, with my friend Mr. J. S. Hyland, I noticed a number of flakes of a similar colour lying on the slightly raised shingly beach on which the sandhills stand, at a point where the sand had apparently been recently blown away. Seeing from an imperfection in the stone that several fragments had formed part of the same flint, I collected all the pieces I could find, some of which were at a yard or two's distance from the rest. Without much trouble I was able the same evening to put them together, and have so fixed twenty-two flakes into position, forming about three-fourths