

A detailed description of the apparatus and methods used in these experiments will appear in the *Zeitschrift für Physik*.

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Book Prices and Reading.

"THE first of these 'little books on great subjects' is considerably shorter than the other two and costs five times as much [2s. 6d.] . . . it cannot be regarded as over-priced; it is rather the others that are extraordinarily cheap." One of the others is a Benn 6d., "Earthquakes and Volcanoes", by Prof. Gregory. I think of the story told long ago of Lant Carpenter lecturing at the 'Vic'. When gas came off but slowly, as 'water' was electrolysed upon the screen, a galleryite was heard to remark to his dissatisfied companion: "Well, Bill, you can't 'spect to 'av many bubbles for a 'penny". What can't you now get for 6d. from either Benn or Woolworth?

I have quoted from "Our Bookshelf", in NATURE of Jan. 4. On previous pages I see books are noticed priced at 18s., 21s. and 14s. How can students afford to buy at such prices? They simply do not and do not read; they only use cram books. As a consequence, Principal Tizard complains that young 'researchers' are uncultured; having read nothing, they also cannot write. There seems to be a conspiracy of publishers to repress authorship. A couple of years ago, a book of mine appeared of which I can say—adopting the Shavian principle that self-praise is the only recommendation—that it was dear at 8s. but at 7s. 6d., the price at which the publisher led me to believe that it would be issued, it was as well worth a student having as any Shavian romance up to 10s., if only for the dedication; it was issued at 15s. and killed. Is it worth the publishers' while to kill at 15s. when they might maintain in healthy activity at half the price? Prof. Bone's Vol. 3 on "Combustion" costs two guineas. How can we poor chemists study our future fate at such price?

What is going to be the effect upon the writing and upon the sale of real books, upon reading, of Benn's pemnician—or shall we say, 'Bennicican'? Mayhap the jam is spread too thickly upon the bread. Or will it be, that, soon, the volumes will be issued with an insurance ticket—against more open reading?

To-day you do not get any discount on your shilling. Scientific journals, especially German, are sold at prohibitive prices. Reading is not merely a disappearing art but becoming impossible: no one can read in a library, the more as you must not mark the margins, let alone follow Darwin's good example and tear out the few pages that are of worth. In addition, wireless is fast making headway as a reading soft-option. I know of two very distinguished men who formerly read omnivorously o' evenings: now they just 'listen-in'. My daughter writes, that, on the Pacific coast, the theatre is deserted, because the effort of listening and attending to the play is too much for the boys—'the pictures' have reduced them to mental somnolency. Why was not the recent London Opera Festival properly supported by the public? The performances were more than interesting. Was not the price too high? Art lovers are as poor as are artists. Is science, as wireless, in the hands of a few, to kill the intelligence of the many?

Into whose pocket is the book-money going? Sir Ernest Benn is a great exponent of economics—has he at all fully studied the intimate economics of the bookshelf? The policy of failing to encourage good books,

other than those written by popular favourites or shockers? He might well call, say, Marie Stopes, Mr. Wells, the author of "All Quiet", into conference. It would be interesting to hear from him what his Woolworth series is doing. It is a fine effort.

Truth is being withheld from the public—we only play with it. Take biblical criticism. Is it not *our duty* to present its results dispassionately, in clear readable form, even to the young? We seem now to be agreed that the mysteries of sex shall be displayed to the adolescent. We are still afraid openly to discuss the foundations of the faith that is forced upon so many.

Chemistry is in dire need of critical discussion: we have not a single work that is broadly critical. A recent Americanistic attempt is not encouraging. The astronomers seem to be sailing close to the wind—when the fifth and other dimensions come along anything may happen: we may then have what my Sunday paper calls 'gaudy incarnations of common vanity, day dreams *ad lib.*' figuring as science.

Our present treatment of books threatens to be a very serious hindrance to the development of habits of sound scientific thought, indeed of scientific progress. Naughty ones seem to sell, whatever the price; nice ones do not. Are we all to be forced to be naughty, only nice in a dim background?

HENRY E. ARMSTRONG.

Flint Implements of Upper Palæolithic Types from Glacial Deposits in Norfolk and Yorkshire.

MY researches in East Anglia have demonstrated that palæolithic flint implements occur in the glacial Boulder Clays of this region, and that these deposits, and their contained artefacts, are of widely differing ages. Thus, in the Tills overlying the Cromer Forest Bed of Norfolk, have been discovered specimens of Chellean type,¹ while, in what I term the Upper Chalky Boulder Clay of Suffolk, which appears to be separated from the Cromer Tills by a series of sands, gravels, and brick-earths, I have found specimens referable to Late Acheulean and to Early Mousterian times.² Upon the surface of the Upper Chalky Boulder Clay in the Ipswich district are situated, at certain places, two superposed and ancient occupation-levels yielding implements of Upper Mousterian and of Aurignacian types, and these floors are covered by a considerable thickness of hill-wash which, some years ago, I correlated with the latest glacial conditions obtaining in Suffolk.³

Recently, during a research carried out under a grant from the Percy Sladen Memorial Fund, I have discovered, *in situ*, in the Brown Boulder Clay, and associated glacial deposits of the Hunstanton district in north-west Norfolk, a number of flint implements of Upper Palæolithic types. These specimens, which comprise blade scrapers, *burins*, or graving tools, cores, and flakes of various sizes, are to be referred to either the Aurignacian or to the Magdalenian epoch. The artefacts lie at varying depths in the deposit, which is often rich in erratic rocks, and a number of them exhibit definite striations. The Brown Boulder Clay is fully described in the Geological Survey memoirs⁴ dealing with the area examined, and the sections from which I have recovered my specimens are classed by the surveyors as of glacial origin. It is, however, necessary to point out that, while in the memoirs mentioned, the possibility, from a geological point of view, of the Brown Boulder Clay being of later date than the chalky variety of the district is suggested, no decision upon this important matter was reached by those who conducted the survey in north-west Norfolk. My researches, nevertheless, lead me to believe that the