

RICCIA GANGETICA AHMAD

I HAVE read with interest Mr. Ahmad's paper on "Three new species of Riccia from India" published in *Current Science* for November 1942. Mr. Ahmad has missed the supple-

differs from *R. himalayensis* in having (1) shorter scales, (2) uni- or bi-seriate antheridia and archegonia, (3) Ellipsoidal spores. Reduction in scales as a result of the hygrophyllus mode of life is very common in liver-

<i>R. himalayensis</i> St.	<i>Riccia gangetica</i> Ahmad
<p>Diœcious or monœcious lobes upto 8-10 mm. long. Dorsal surface green with a median sulcus. Air spaces narrow, slit-like cross-section three times as broad as high.</p> <p>Scales small, semilunar distant, purple or hyaline, bent over the margin.</p> <p>Antheridia in one median row.</p> <p>Spores 90-110μ, in specimens from Nega-patum upto 132μ; dark brown to opaque.</p> <p>Surface reticulate, margin usually with long processes which are prolongations of the walls of the reticulations.</p> <p>In specimens from Spiti the reticulations faint (naturally the margin would be faintly dentate).</p>	<p>Monœcious. Thalli up to 20 mm. in diameter. Dorsal surface bluish green with a median sulcus. Air spaces narrow, slit-like two or three times as broad as high.</p> <p>Scales prominent, semilunar, colourless or pink, never extending beyond the margins.</p> <p>Antheridia and archegonia uni- or bi-seriate along the median line.</p> <p>Spores 112-134μ, ellipsoid, black.</p> <p>Surface reticulate, low walls separating the areoles, margin obscurely dentate.</p>

ment to "The Liverworts of the Western Himalayas and the Punjab Plains" Part I; otherwise he would not have treated *R. gangeticas* as a new species. Below is the description of *R. himalayensis* St., as given by Kashyap side by side with the description of *R. gangetica* Ahmad.

Above comparison shows that *R. gangetica*

differs from *R. himalayensis* in having (1) shorter scales, (2) uni- or bi-seriate antheridia and archegonia and antheridia cannot be considered as a specific difference.

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REVIEWS

Mathematics: Its Magic and Mastery. By Aaron Bakst. (Chapman and Hall, London), 1941. Pp. xiv + 790. Price 21sh.

This book of over 700 pages of clear printing, attractive head lines, and pleasing cartoons, is a very neat and successful dressing for those mathematical dishes that are usually offered for the general education of the public up to the matriculation standard. All those elderly "juveniles" who continue to retain a taste for figures and an interest in reading are sure to find vast enjoyment in this book. It differs from the classical treatments of amusements in mathematics for the sake of mathematics, and is largely concerned with the application of the methods of elementary mathematics in the various fields of human endeavour, without bothering the reader with any abstract conceptions or abstruse procedures.

The book is divided into 37 chapters with an appendix of equations and Tables. Given below are some selected chapter headings and sub-headings: Systems of Numeration (Horse work was never like this $1+1=10$), the Arithmetic of Measurement, Rapid Calculations, The Grammar of Algebra (The silk stocking bargain bubble, dream of an opium eater, the family-minded fly, the arithmetical plague of Australia, the how many times ladder, a sequence for the rabbits, a clever rat, the

banker's mathematics), Streamlining Everyday Computation, How to have Fun with Lady Luck, Post Office Mathematics, Man's Servant—The Triangle, The Triangle—Man's Master, the mathematics of Seeing, the Shape of Things, Escape from Flat Land, Cork-Screw Geometry, The Firing Squad and Mathematics.

A Handbook of Shellac Analysis. By M. Rangaswami and H. K. Sen, Indian Lac Research Institute, Namkum, Ranchi, 1942. Pp. 106 + xvii. Price Rs. 3-4-0.

Shellac—the commercial form in which lac is mostly exported—has remained one of India's monopolies. The Indian Lac Cess Committee, sponsored by the Government of India, has played an active part in helping to maintain the supremacy of lac in trades and industries where its special qualities are valued, in spite of keen competition from synthetic substitutes. Like many other natural products, lac varies in composition depending upon the host which feeds the parasite, the race of insect which secretes it and the season in which the crop is raised; it also depends upon the conditions of storage, the mode of treatment it receives during the various industrial operations which intervene between stick lac and shellac. Further, the uncertain and inflated prices which have ruled the shellac