

London's early Victorian ornithologists. Wood-pigeons and certain species of wildfowl find a security in breeding in London which is sometimes denied them in the country; and the gadwall, for example, is believed to have colonized Surrey waters from pairs put down to breed in St. James's Park. The black redstart is now at least twelve pairs strong, having found in the heaps of rubble and open weed-grown spaces of the bombed areas of the City suitable feeding and nesting sites. (Even wheatears on migration have taken to visiting these mounds of stones with scattered weeds, which to some degree resemble their natural rocky haunts. Nature, indeed, abhors a vacuum. The War has shown how swiftly much-devastated towns have been colonized by plant and animal life.) Five species of gulls not only winter regularly in London, but also some are beginning to remain throughout the summer, and the black-headed gull is now breeding in Middlesex.

Finally, there has been a great increase in public interest in the protection of London's birds, which should help the rarer species to remain and perhaps some lost species to become re-established.

R. M. LOCKLEY

HYLL'S "FIRST GARDEN BOOK"

First Garden Book

Being a faithful Reprint of a Most Briefe and Pleasaunt Treatyse Teachynge Howe to Dress, Sowe and Set a Garden by Thomas Hyll, Londyner 1563. Collated and Edited by Violet and Hal Trovillion. (Trovillion Private Press, at the sign of the Silver Horse, Herpin, Illinois, U.S.A., 1946.) 3 dollars.

IN these days of paper shortage and restrictions, it has remained for the enterprising owner of a private press in the Middle West to perform a service that has long been overdue. The first printed gardening book written in English has for centuries only been obtainable for reference in the greater libraries like the British Museum, and by so much is this reprint the more welcome. The suggestion was made to the publisher by Miss Eleanour Sinclair Rohde, who contributes a short introduction.

As to the book itself, it naturally owes a great deal to classic sources and constantly refers to them; but it contrives in a brief space to give careful instructions for choosing the site of a garden, and how to enclose it. The classic classification of soils is relied upon to instruct the novice gardener in selecting his garden ground and in teaching him which plants of the surprisingly wide selection available would be likely to thrive in which soils. The wise man will choose "a fatte and lose ground, which nedeth but small labour; and yieldeth plentifullest and greatest fruite".

After dealing with the construction of two designs of garden mazes, then an essential recreational part of any really splendid garden, Hyll proceeds to set out the times and seasons of planting each kind of seed he includes and the sort of soil that is suitable for them. The index comprises fifty-two herbs, many of them still familiar to our gardens and tables, but some that have long since passed out of use. The latter are mainly things that could only have been used as seasoning for flesh dishes and could not possibly have been used as vegetables in the modern sense of the term. Among such things are annis, basil, cherril, cummin, dill, fennel, mallow, orage,

pennyroyal, poppy, rue, and other herbs that are still used in this way, like garlic, capers, parsley, sage, thyme and mint.

Among the vegetables that have continued in use are the artichoke, bean, beet, carrot, colewort, leek, onion, parsnip and spinage, and the salads include cresses, cucumbers, endive, lettuce, radish. Flowers were also grown for use as relishes, or for making into conserves, the carnation, gelyflower, hyssop, lily, rose and violet all being popular for this purpose.

But when all is said, this list is not very comprehensive, and, of course, that modern standby, the potato, is missing. The editors have chosen to omit "the medical details in regard to the uses of the herbs", and this omission is somewhat to be regretted, as all omissions from textual reprints are. Nevertheless, the task was well worth doing and has been done in a worthy manner.

G. E. FUSSELL

NUCLEAR FORCES 6½

Nuclear Forces, Vol. 2

By Prof. L. Rosenfeld (Monographs on Theoretical and Applied Physics, Vol. 1.) Pp. 183-544. (Amsterdam: North Holland Publishing Co., 1948.) n.p.

THERE are two main reasons why those who found the first volume of Prof. Rosenfeld's "Nuclear Forces" useful will welcome the appearance of the second. The first is naturally the subject-matter, which until now has been available only in the form of original papers and is here coherently collected for the first time. Secondly, the index and bibliography, referring to both volumes, and the absence of which from Volume I robbed it of much of its value, is at last available at the end of the present volume. Another attraction to all research workers in the field of nuclear physics is an up-to-date table of atomic nuclei, listing their chief physical characteristics, which is in many ways an improvement on the similar tables of Seaborg and of Flüge and Mattauch.

Volume I dealt with general features of nuclear forces, and a detailed study of the nuclear two-body problem. The present volume continues the analysis for more complex nuclei and includes the theory of the nuclear three- and four-body problems, the models used to describe heavy nuclei, the saturation characteristics of nuclear forces, the classification of nuclear energy-levels by means of group theory, and, above all, the results of the meson theories of nuclear forces. These topics are all treated with great thoroughness, and in a manner which will be useful primarily to the specialist, though the student wishing to learn the subject will also find much of interest to him.

There are, in addition, a number of useful appendices dealing with beta-ray selection rules, the magnetic dipole and electric quadrupole moments of nuclei, and with the strong-coupling version of meson theories; they will be welcome, for it is difficult to find a simple treatment of these subjects elsewhere.

The present volume has the same virtues and suffers from the same defects as the earlier volume, and will appeal to the same class of reader. Taken together as a complete work, the two volumes constitute a scholarly achievement, in which chaos has been reduced to order, and will doubtless remain a standard work on the subject for many years to come.

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