presence of the disturbance in a stand of red pine may not be evident to a casual observer until the invasion of parasitic fungi takes place.

Forking has been found on soils varying in pH from 4.5 to 7.5 and ranging in texture from sandy to clay loam. It has been observed in young natural reproduction as well as in plantations and in both mixed and pure stands. Investigations are being carried on in an effort to determine the primary cause and mechanism of forking. The evidence at hand strongly suggests a fungous origin.

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SELENIUM DEHYDROGENATION OF NAPELLINE

THE recent publication of Lawson and Topps[1] anticipates on one important point results obtained in this laboratory. These authors secured on selenium dehydrogenation of atisine, $C_{22}H_{33}O_2N$, a hydrocarbon $C_{17}H_{16}$, characterized by its picrate $C_{17}H_{16}\cdot C_6H_3O_7N_3$, orange needles, m.p. 129°, and its trinitrobenzene-derivative, yellow needles, m.p. 140°.

We[2] have obtained by selenium dehydrogenation of napelline $C_{22}H_{33}O_3N$ apparently the same hydrocarbon as picrate, orange needles melting at 130° (Found: C, 60 .95; H, 4.59; N, 9.78, 9.57. Calc. $C_{17}H_{16}\cdot C_6H_3O_7N_3$: C, 61.47; H, 4.23; N, 9.34;) The trinitrobenzenederivative crystallizes in dark yellow needles and melts at 138°.

Lawson suggested that the hydrocarbon is a substituted phenanthrene. Blount[3] has obtained a compound cevanthrol, $C_{17}H_{16}O$, by dehydrogenation of cevine, a veratridine derivative; x-ray measurements indicate the probability that cevanthrol is an alkyl phenanthrol. It is of especial interest to note that similarity of these reports, because a link between the aconitine and veratrine alkaloids is highly desirable.

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LUTHER BURBANK

To this writer it has seemed that it is high time some one told the truth about Luther Burbank. I believe I have read every report about him of any importance that has ever been published, but they mostly consist of fairy tales, sentimental rot and propaganda. Some have tried to relate facts but let their emotions get the better of them. Others were frankly hostile, and therefore biased. Exceptions to the above, of course, are the limited writings of Hugo de Fries, Vernon Kellogg, David Starr Jordan and L. H. Bailey.

I have undertaken the task of ferreting out the facts about this man, whose name (no matter what we may think of him) is almost a household word in many languages.

I find it necessary to see all the catalogues and price lists he ever issued in order that I may abstract them and evaluate all the items. I have searched libraries and private collections from coast to coast and have succeeded in finding more than a hundred pieces, but I am sure there are many more still lost. Private collections are my best bet and I, therefore, appeal to readers of SCIENCE to send me anything they may have among their old papers. If requested to do so I will gladly return them.

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SCIENTIFIC BOOKS

The World Around Us. A Modern Guide to Physics. By PAUL KARLSON. 293 pages, 8 plates. New York: Simon and Schuster, 1936. $3.00.

THE rapid development of physics in the past few decades has stimulated the interest of the layman in this subject, and has created a demand for articles and books explaining in everyday language the achievements in physics to the general reading public. To appreciate these achievements it is necessary to know something more about physics in general, and that is exactly what Karlson realizes. The first chapters are devoted to the question of "matter and motion," electricity and light waves. The next chapter deals with the conceptions of relativity, and in the last two chapters he treats the topics of light quanta and the new ideas which have been introduced in the development of the quantum theory. The Bohr atom, waves of matter, artificial disintegration, the uncertainty principle and causality and probability are discussed, and with an outlook on the new picture of the universe the book closes.

The usual objections against writings of this type by the educated non-scientist are, that the arguments are not formulated precisely enough, and that the analogies necessary, to obviate mathematical formulae, are too far fetched. It is particularly important, for a book of this type, to use the same terminology as the

[1] *Jour. Chem. Soc.*, 1640, 1937.
[2] *Jour. Am. Chem. Soc.*, in press.
[3] *Jour. Chem. Soc.*, 414, 1936.