clinical evidence led to an investigation of the occupational histories of the patients now in our clinic with myeloid metaplasia.

All the 6 available for study gave a history of exposure to certain industrial solvents including benzol and carbon tetrachloride. Case 1 worked for 5 years with benzol in a shoe factory. Case 2 cleaned mesh machines with benzol for half an hour a week for 16 years. Case 3 washed bearings in "high test gasoline" for 20 minutes 4 times a day for 26 years. Case 4 was exposed to the fumes of carbon tetrachloride for an hour each day for 8 years. Case 5 used large amounts of paint remover for 1½ hours a day for 15 years. Case 6 was exposed to a paint remover containing benzol intermittently for a period of many years.

These facts suggest that exposure in some individuals to certain fat solvents may result in the clinical picture previously described as agnogenic myeloid metaplasia. It is quite likely that some patients with this syndrome will give no history of such an exposure, and it is reasonably certain that many so exposed will escape unscathed.

Further work on this subject is being carried out.

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THE OPOSSUM, *DIDELPHIS VIRGINIANA* KERR, A NEW HOST FOR PARAGONIMUS IN TENNESSEE

IN the early fall, 1940, Mr. Malcolm V. Parker, a graduate student at Northwestern University, forwarded the writer a box of twelve mounted and a vial of eight preserved specimens of a lung fluke he had removed from the lungs of a single opossum, *Didelphis virginiana* Kerr, while in residence at the Reelfoot Lake Biological Station in Tennessee during the summer. The host was taken by Mr. John B. Calhoun, another graduate student at Northwestern University, while working on the food habits and distribution of mammals in the vicinity of Reelfoot Lake. Although several specimens of the opossum had been taken during the summer, not more than six of these hosts had been searched for their parasites. The writer spent six weeks at the station, but had opportunity to examine only three of the opossum hosts from the region. Only the single host harbored the lung fluke.

The fluke has been identified tentatively as *Paragonimus westermani* (Kerbert, 1878). Recognizing the uncertainty of the taxonomy of the members of the genus *Paragonimus,* the anatomy of the present form has been worked out in considerable details, and the writer is of the opinion that but one species exists. In so far as is known the opossum has not been reported heretofore as a host of *Paragonimus,* although, as pointed out by Hall,[1] much work has been done on this fluke by Japanese workers and it is just possible that the opossum host has been included. However, there is some evidence to indicate that the American opossum is refractive to an infection with this fluke. Ameel[2] found no infection in 109 of this host from an endemic area in Michigan and failed to produce an infection when the opossum was fed large numbers of viable cysts of *Paragonimus.* No infection has been found in over thirty opossums autopsied in Georgia.

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SCIENTIFIC BOOKS

CAMPBELL ON THE EVOLUTION OF THE LAND PLANTS

The Evolution of the Land Plants (Embryophyta). By DOUGLAS HOUGHTON CAMPBELL. 731 pp., 351 figs. Stanford University Press. 1940. $6.50.

THE book before us scarcely measures up to its title, "The Evolution of the Land Plants," or the promises of its Introduction. What it really turns out to be is a very valuable summary of the present state of knowledge of development from Bryophytes to Angiosperms. That this is extremely well done goes without saying to any one who knows anything of Campbell's own original work, especially on the Bryophytes. One looks in vain, however, for an equally comprehensive discussion of the various hypotheses of origins and relationships that have been put forward. The author is obviously aware of these, but there are no reasons given for his acceptance of one or rejection of another. When one has led such a long and fruitful life, as has the author, and has been so close to the firing line of his science, his friends and colleagues and those of the younger generation of botanists who come under his influence naturally expect, whether they have a right or not to such an expectation, that out of his experience and wisdom he will state why he *e.g.* accepts Wettstein's system and rejects that of Parkin and Arber regarding the evolution of the flowering plants.

That this is not merely carping criticism is, I think, shown by the feeling of approval which the reviewer would accord to Campbell's judgment in the cases mentioned. The book itself consists of twenty-seven chapters of which four are devoted to Bryophytes, eight to the Pteridophytes, as they are called in the text, but

[1] *Jour. Parasitol.,* 11: 227–228, 1925.
[2] *Am. Jour. Hyg.,* 19: 279–317, 1934.