monographs and papers, also on the Jurassic Foraminifera (omitting his first paper, which his later work did not confirm), proposed only some 34 new names all told, preferring to identify many of his specimens with forms described from Tertiary and Recent material.

Were the works of these two authors to be held up as models, the future of the systematic study of the group would be black indeed.

It is concluded that modern work on the Foraminifera is very like that of those who are now dead: it is either good, bad or indifferent. The difficulty is that there is more of it to cope with.

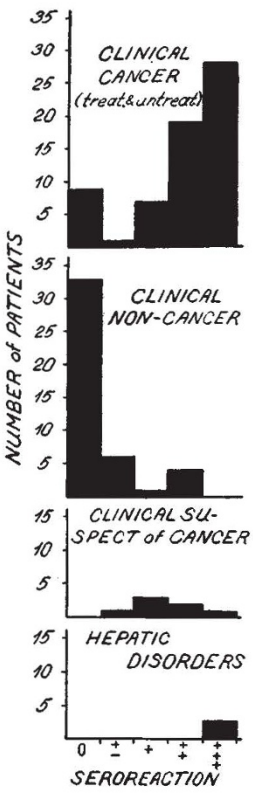
W. A. MACFADYEN.

Longships,
Capel-le-Ferne,
Folkestone.
March 28.

[1] NATURE, **134**, 43 (1934); **136**, 132 and 797 (1935); **141**, 558 (1938).

The Prague Sero Reactions for Cancer

Waldschmidt-Leitz[1], Brdička[1,2] and collaborators have recently published preliminary notes on sero reactions for cancer; they measured the activation deactivation of certain enzymatic processes or examined by the polarograph the reactions of certain catalytic processes after addition of serum or peptidized serum from men or animals with or without cancer, and ascribed the difference in action of cancer sera and non-cancer sera to differences in concentration of active S—S groups.



After a visit (by H.) to the institutes in Prague, where the workers in question kindly demonstrated the technique and material, we have carried out the sero reactions according to Brdička's polarographic methods[2,3] on sera from 118 patients: 44 without clinical symptoms of cancer, 7 with symptoms suspect of cancer (2 rough hypertrophia prostatæ with 'lumbago'), 1 anæmia simplex with achylia gastrica (61 years old), 1 cardiospasm, 1 agglutinatio vaginæ with fluor (72 years old), 1 cancer uteri incipiens (?), and 1 chronic icterus, suspect of cancer pancreatis (80 years old); 64 with clinically manifest cancer, and 3 with parenchymatous hepatic disorders (1 intoxication with sanocrysin, 1 intoxication with iodine and 1 with statis hepatis e morbu cordis incompensata).

For the reactions we have used two preparations:

(*a*) To 5 ml. of 0·05 *N* hydrochloric acid containing 5 mgm. pepsin, 0·2 ml. serum was added. The mixture was incubated at 40° C. for 20 minutes and then 0·2 ml. was withdrawn and added to 10 ml. of 0·0016 *N* cobaltous chloride in 0·2 *M* ammonium chloride – ammonia buffer (equal parts). The polarographic curve of this mixture was registered[2].

(*b*) To 1 ml. of 0·1 *N* potassium hydroxide 0·4 ml. serum was added; the mixture was kept at room temperature for 20 minutes, 1 ml. of a 20 per cent solution of sulphosalicylic acid was added and the mixture filtered; 0·6 ml. of the filtrate was added to 5 ml. of the following solution (to 150 ml. *N* ammonia + 50 ml. *N* ammonium chloride + 700 ml. water was added 100 ml. 0·03 *N* hexamine cobaltic chloride). The polarographic curve of the mixture was registered[3].

Every day a sample from a clinically non-cancer patient was used as a standard. The galvanometer sensitivity was 1:200; the strength of reaction was taken as the difference of curve height in millimetres between standard and unknown serum according to the following scheme:

Reaction	0 : lowest	=	0 mm.	or both	=	1 mm.	
	± : „	=	1 „	„	=	2	„
	+ : „	=	2 „	„	<	6	„
	+ :6> „	=	3 „	and highest	⩾	6	mm.
	+++ : „	⩾	6 „	„	⩾	10	„

The results are given in the accompanying block diagram, which shows that the majority of the non-cancer sera fall in the negative group, while the majority of the cancer sera + the 'hepatic' sera fall in the strongly positive groups. *The difference is unquestionable.*

Our present technique and material do not allow statistical treatment or conclusions regarding the future diagnostic value of the reactions. Further investigations are being undertaken for this purpose.

We wish to thank Profs. Waldschmidt-Leitz, Heyrovský, Brdička, Knaus and Novak in Prague for kind personal communications.

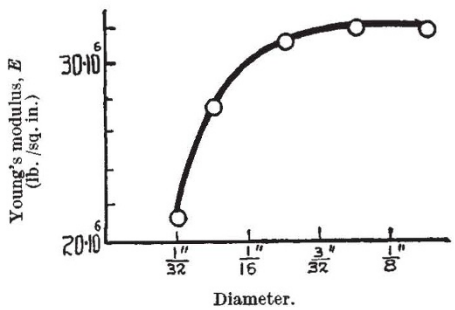
FRANTS BERGH.
O. M. HENRIQUES.
J. SCHOUSBOE.

Finsen Laboratory,
Finsen Institute and Radium Station,
Copenhagen.
Feb. 19.

[1] Waldschmidt-Leitz, Conrath, Gloeditsch, *Naturwiss.*, **25**, 60 (1937); Brdička, NATURE, **139**, 330 (1937) (see literature there).
[2] Brdička, NATURE, **139**, 1020 (1938).
[3] Brdička, personal communication.

Value of Young's Modulus for Nickel Wire as Influenced by the Diameter

MAKING use of the electro-magnetic method for measuring the frequency of longitudinal vibrations



as described in a previous note[1], tests for Young's modulus have been made on pure annealed nickel