no reactions, or very few, but nevertheless they should be looked over.

In the revised list of journals the abstractor's number, to whom the journal has been assigned, follows the name, and two check marks indicate that the journal has been finished. This list, together with abstracting rules, will be sent to any one else desiring to have a part in this worth-while undertaking.

C. A. JACOBSON,
Editor in Chief

WEST VIRGINIA UNIVERSITY

PIGEON MALARIA IN CALIFORNIA

FOR many years, the presence of a sporozoan malarial parasite in pigeon blood has been known to produce a disease of economic importance. The causative organism of pigeon malaria is *Haemoproteus columbae* Celli and San Felice. The parasite can be transmitted from bird to bird only by means of a blood-sucking vector, a hippoboscid fly, *Pseudolynchia canariensis* (Macq.). Bishopp[1] states that this fly was introduced into the United States about 1896. It is distributed throughout the southern states and in California.

Although pigeon malaria has been reported from many parts of the United States, to our knowledge, no previous record exists which establishes its presence in California. Our interest was aroused when a report came to us from a Southern California squab farm that birds infested with *P. canariensis* showed signs of unthriftiness. The symptoms were quite variable in intensity, ranging from mild to severely morbid states. Examination of blood samples from these birds showed the erythrocytes to be parasitized by *H. columbae*.

The extent of the disease in California has not been determined. A survey is in progress with this object in view. The presence of the parasite should stimulate the application of vigorous control measures against the fly vector.

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SPECIFICITY OF RENIN

UNDER date of Friday, December 13, there appeared in SCIENCE, page 554, a note from the University of Buenos Aires relative to the absence of pressor response in man when swine renin is injected intravenously. In this connection we have the following to report.

Since February, 1940, we have experimented with hog renin in humans, the material employed having been prepared especially for us by Professor W. W. Swingle, of Princeton University, who reported that 0.1 mg per kilo of body weight of this material, given intravenously to anesthetized dogs over a period of two to five seconds, raised the mean arterial pressure 40 mm of mercury. We have thus far failed to obtain any significant elevation in blood pressure response in human beings with this material even when injecting intravenously quantities of renin, which appear relatively large. After cautiously experimenting with the material on ourselves, a group of 20 patients on Dr. Schnabel's service were tested for sensitivity by the intradermal injection. In two instances mild positive skin tests were obtained. On March 6, 1.76 mg of renin were injected intravenously into a patient, with no significant effect on blood pressure. The following day 2.9 mg were injected, with negative results. Since then we have injected this material in normal individuals and in patients suffering with hypertension in gradually increasing doses. Our last experiment was with a 38-year-old male, who was given rapidly 7 mg intravenously, without effect on blood pressure. Five minutes thereafter 14 additional mg were given intravenously, still without effect on the blood pressure.

It might be of interest also to state that a large injection in a patient who earlier had demonstrated a positive skin reaction, had no effect upon the patient's blood pressure.

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SCIENTIFIC BOOKS

MATHEMATICS

The Development of Mathematics. By E. T. BELL. xi + 583 pp. New York: McGraw-Hill Book Co. 1940.

"ONCE we venture beyond the rudiments," says Mr. Bell, "we may agree that those who cultivate mathematics have more interesting things to say about it than those who merely venerate." No more eloquent substantiation of this assertion could be wished for than this book in which it appears. A cultivator himself, its author requires no introduction to mathematicians. He knows mathematical creation—its trials and its rewards—at first hand. Nor does he need introduction to the wider reading public. It seems to this reviewer, however, that in this work he has risen to a new level of accomplishment, which merits the genuine appreciation of all those who regard mathematics and its related sciences as a vital field of human activity, and find interest in the history of their development. This is an eminently readable book, written in an engaging and graceful style. At the same time it is a scholarly work with a wholly serious purpose,

[1] F. C. Bishopp, *Jour. Econ. Ent.*, 22: 974, 1929.