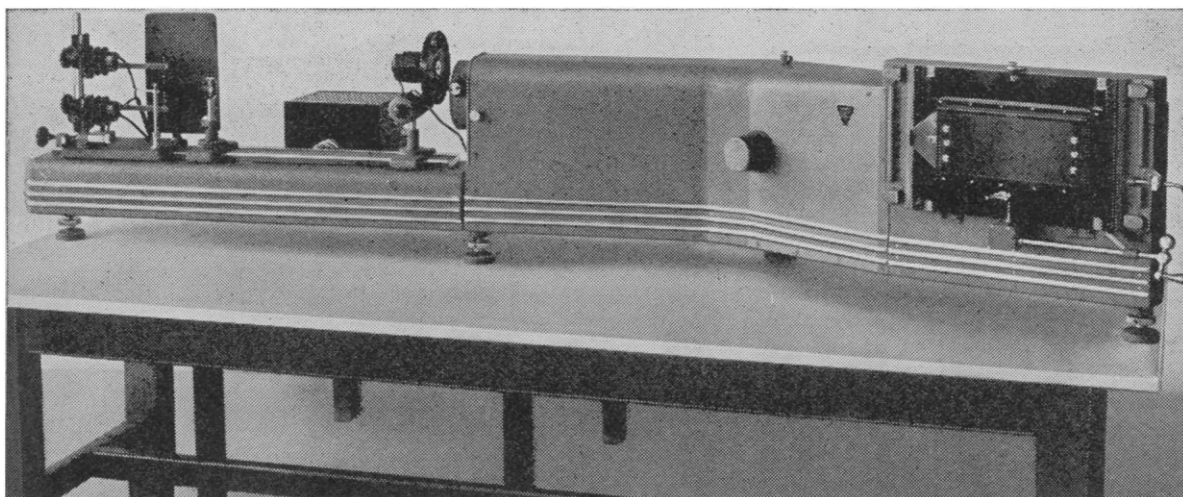


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practice of selective registration by the Columbia Sheep Breeders Association since its organization in 1941, but this program may be too recent to permit critical evaluation. The chapter on sire indexes has been revised considerably. The book is well printed and bound. The subject index appears to be adequate.

CLAIR E. TERRILL

USDA, Western Sheep Breeding Laboratory
Dubois, Idaho

Correlation of cycles in weather, solar activity, geomagnetic values, and planetary configurations. (1st ed.)
Maxwell O. Johnson. San Francisco: Phillips and Van Orden, 1946. Pp. viii + 149. (Illustrated.)

This book consists of numerous tables and graphs of rainfall, sunspots, planetary configurations, and other data, with comments on the results. The author is convinced that various cycles of considerable lengths in years, which are related to configurations of the planets, are demonstrated. He attributes the cycles in terrestrial phenomena to cycles in solar variation, and these solar cycles to electric or magnetic influences of the planets. His object in all this extensive computation and study is to find sufficiently reliable cycles in terrestrial phenomena to be of real value in forecasting yields of crops.

My own belief in the reality of certain periodicities in solar variation inclines me to hope that predictions of value may eventually be possible from studies of them. I regret that all of Mr. Johnson's data are yearly mean values. I think that it is desirable to have a more detailed basis, using monthly values, for the solar periodicities I accept are not multiples of years.

C. G. ABBOT

Smithsonian Institution, Washington, D. C.

Statistical methods: applied to experiments in agriculture and biology. George W. Snedecor. Ames, Ia. Iowa State College Press, 1946. Pp. xvi + 485. \$4.50.

This is the fourth edition of this well-known work, which has been widely used in the fields of agriculture and biological research since its first appearance in 1937. The general order of presentation is the same as before: simple variation and correlation, some large sample theory and more complex cases of chi-square, analysis of variance and covariance, multiple and curvilinear regression, and more complex concepts. There has been considerable minor rearrangement, and new emphasis has been placed on sampling, fiducial limits, estimation, and components of variance. The format is somewhat more attractive than in previous editions.

The book begins with several new sections on sampling of attributes, considerably more imposing than the former very elementary opening. A table of fiducial limits for binomial material is introduced (its theory being left to Chap. 16). There is also a new and useful table of random numbers. Some of the ideas brought out in the former Chapter 1 are then developed. Other chapters show less difference from former editions, but in all there are changes. Graphic tests of significance

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