

except for the ribbing of the wind. It is a rugged country scored by ravines, barred with mountains, and the black rocks show their teeth even in the plains. The shifting sands lie in drifts and beds often most treacherous where they seem most secure, adding to the dangers of the traverse, like wind-blown snow on a rocky slope. And so the mechanical side of the expedition will be watched with an eager curiosity. The cars to be used have the standard ten horse-power engines of the popular Citroën four-seater touring cars. They are fitted with a special gear-box giving a range of speed from two to twenty-five miles an hour, and provided with a ribbed caterpillar of canvas and rubber which has already been tried successfully on loose sand. It will be a striking testimony to the enterprise and workmanship of the Citroën Company if cars of a type produced in bulk and sold at the price of £245 in this country are able to stand a test so severe.—*The London Times*.

SCIENTIFIC BOOKS

American Indian Life, by several of its students. Edited by ELSIE CLEWS PARSONS. Illustrated by C. Grant Lafarge. New York: B. W. Huebsch, 1922.

I do not now mind confessing that when I first saw this book I felt somewhat suspicious of it, but no sooner had I begun to read it than I became greatly interested and my pleasure increased as I read more of it. We are often told that every man has the making of one good novel. Sometimes this succeeds in being born into the world, usually it does not, but too frequently there is a prolific output of indifferent offspring. There are many books of sympathetic studies in narrative form of native races, which are invaluable as records of alien psychology and of varied customs, but naturally the author confines himself to the people he knows and each book is therefore about the one particular people. This volume is a new departure as it comprises a series of interpretative studies of aboriginal life written by experts. It would not be just to compare the treatment of their subjects by the several authors. Each has its own individuality and it is highly interesting to see how those whom we know personally, or who

are known to us by their scientific studies have "let themselves go" and how they reveal themselves in their endeavor to reveal others. One and all are to be heartily thanked for thus giving us of themselves.

It really was a brilliant idea of the Editor, Dr. Elsie Clews Parsons, to induce serious field-workers for the nonce to discard the precise method of a descriptive monograph and to recast their first-hand material in the form of a narrative, which is none the less scientific though presented in a manner which is attractive to all sorts and conditions of men. To paraphrase the remark of Professor Kroeber in the Introduction: Every anthropologist with field experience holds in his memory many interpretations, many convictions, as to how his natives feel, why they act as they do in a given situation, what goes on inside them. This psychology is often expressed by the frontiersman, the missionary, and the trader, but it has been very little formulated by the very men who know most. I can well believe, as Kroeber goes on to say, "that the writing of our tale has been a surprise and of value to ourselves. We had not realized how little we knew of the workings of the Indian mind on some sides, how much on others * * * Each author has adhered strictly to the social facts as he knew them. He has merely selected those that seemed most characteristic, woven them into a plot around an imaginary Indian hero or heroine. The method is that of the historical novel, with emphasis on the history rather than on the romance." Indeed all the remarks by Kroeber on the book as a whole are much to the point. May I, however, be forgiven if I demur to one or two statements? He adopts the view current among American anthropologists that "fundamentally one physical type stretches from Cape Horn to Alaska; superficially it is intricately variegated—here with round heads, there with long * * * In fact, it might seem that during ten thousand years the variety of climates and habitats might have succeeded in moulding the Indian into racial types of even greater distinctness than we encounter." I doubt if any European anthropologist would agree that the Lagao Santa type was merely a local variation of the "proto-Mongoloid stock" which gave rise to the typical brachycephalic peoples

of America. The Lagoa Santa type is admittedly an ancient one, and it seems much more probable that it represents a very early migration into America of a non-Mongoloid stock, and probably before the Mongoloids arrived. Again, the dolicho-mesaticephals of the woodlands and plains of North America seem to indicate a different racial movement from that of the western and southern American brachycephals. He also adheres without comment to the popular view that all the culture of Central America and of Peru was rigidly indigenous; but this is not the place to discuss this thorny subject. "British Colombia" is evidently a printer's error which has crept in on p. 10.

After this little grumble I can return to the book itself. A map on page 379 gives the distribution of the tribes described and one sees at a glance how representative they are. An appendix gives a brief account of the distribution of each tribe, and very useful bibliographies. By Mr. C. Grant Lafarge (whose name strangely enough appears only on the title-page, the Editor and Introducer might profitably have alluded to him or his plates), the book is embellished with six colored plates and 19 uncolored, which are explained by the "Illustrator's notes" at the end of the volume. They are mostly of a decorative character, but the artist has evidently been at pains to be accurate in detail and color.

Writing as a teacher of, alas! now long experience, I have no hesitation in stating that this should be the first book to be placed in the hands of a beginner in the study of North and Central American ethnology. When he has read this, he will be able to read textbooks and original treatises with much more profit and comprehension, as he will be equipped with a sympathetic human background which will illumine the more systematic works which he will have to study. There is no better survey of Indian custom and belief for interesting the general reader in the vanished life of the earlier inhabitants of his country. It is to be hoped that the large size and expense of the book will not seriously diminish its sale, for it certainly deserves a wide circulation.

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SPECIAL ARTICLES

AN IMPROVEMENT IN MUSCLE CONTRACTION APPARATUS

ONE of the difficulties encountered in recording a series of muscle contractions is due to the fact that the relaxation phases very seldom happen to stop on the base line; hence the curves are not exactly comparable and it is difficult to make comparisons. It is thus often desirable to be able to adjust the writing point of a lever to the base line on a revolving kymograph and at the same time not otherwise interfere with the experiment. The apparatus described in this paper enables one to do this easily, quickly and accurately. It has been used with satisfactory results on smooth muscles such as the esophagus, stomach, intestine and oviduct of the frog; regions of the esophagus and stomach of the turtle, and the circular muscles of the body wall and intestinal tract of the earthworm.

The principle involved is that of raising or lowering the fulcrum of the writing lever by means of a micrometer screw. This adjustment is of special advantage when stimuli are being made at regular intervals of time and when the stretch of the muscle is considerable or the relaxation phase is slow or long drawn out. By use of this apparatus one is able to make these corrections at will by raising or lowering the writing point to the base line while the kymograph is running.

The main support of the apparatus is the iron bar indicated by letter *A* in figure 1, which may be clamped on to a ring stand. At right angles to *A* are two parallel bars, *B* and *R*. The former and shorter one is rigid and firmly

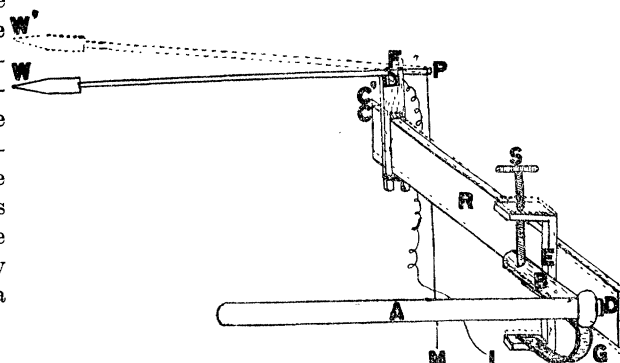


FIG. 1