called "assistant teacher," ranges from nineteen hundred to thirty-seven hundred dollars. Credit is given in the initial salary for recognized outside teaching experience and graduate work. By a further examination for the license of "first assistant," a progression to forty-two hundred dollars is possible, with administrative duties as chairman of department. Such departments range in size from two or three to forty teachers. High schools range from one to eight thousand pupils. At the last count there were thirty-five secondary schools ranked as high schools, with more new ones in prospect.

(4) Opportunities for continued graduate work and research are probably not equalled or even approached elsewhere in the country. The educational problems constitute an intensely interesting and important field of work in themselves, and New York is headquarters for more kinds of pure and applied scientific research than anywhere else. The universities, professional schools, libraries, science foundations, botanic gardens, museums, industrial establishments, et al., all offer problems by the score, with facilities for the qualified investigator. For those who have not finished graduate study toward a degree, the universities offer important graduate courses on Saturdays.

(5) Full details regarding the stated examinations, etc., may be obtained by addressing the Board of Examiners, 500 Park Ave., New York City. Following are paragraphs taken from their circular of information, and giving some of the facts a prospective candidate for the examination would be interested to know.

(a) Teaching positions in New York City are secured by competitive examination, a part of which is written. These examinations usually held twice a year, in November or December, and in March or April, usually at a time when the New York City public schools are not in session.

College graduation and one year's teaching experience, or, in lieu of teaching experience, one year of post-graduate work which must include 60 hours in the methods of teaching the subject.

(b) It takes nearly a year for examiners to make proper evaluation of the candidates' references, scholarship and records of service so that persons applying for New York City positions who take the examination should not look for appointment any earlier than one year from the date of the written examination.

Copies of the last written examination question paper may be obtained, while they last, from the Board of Examiners, 500 Park Avenue, New York, upon request, enclosing a stamped and self-addressed envelope.

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SUGGESTED MODIFICATIONS OF THE CELLOIDIN METHOD

UNDER the caption "A shorter celloidin method" there recently appeared in SCIENCE (No. 1542, July 18, 1924, p. 67) a description, signed by J. E. Lodewick, of a tank made of an iron pipe, for use in imbedding tissues with celloidin under pressure. The present writer wishes to suggest some modifications which have been found advantageous.

Instead of using a piece of iron pipe for the tank a heavy glass jar can be used, provided the pressure is not run too high. In an apparatus of this kind, described in detail by the writer in the April, 1914, issue of the Proceedings of the Society of American Foresters, a pressure of 30 pounds per square inch can safely be used.

The great advantage of the glass jar is, of course, that the material can be observed without opening the chamber. Hence, certain obvious precautions can be taken against too rapid release of pressure and attendant bubbling over of the celloidin or the celloidin becoming too low on account of an insufficient original supply.

The writer has also found that woody material can be satisfactorily imbedded by the pressure method by using only a 10 per cent. solution of celloidin, provided a liberal supply is used to begin with. Thus, one avoids the necessity of any transfer of material to a higher concentration. Another way of hastening the process with tissues that can endure higher temperatures is to heat and cool the chamber alternately at intervals of several hours. The increased pressure should be applied particularly while the celloidin is cooling, so as to secure penetration into the cell cavities while the gases are contracting and condensing within.

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A CURIOUS SURGICAL CASE

I HAVE received from Mr. Nisuke Takahasi, a teacher in a high school in Kumamoto, Japan, a specimen of a fish somewhat noted in Japanese surgery.

It is a fish two and four fifth inches (7.0 cm) long taken from a man's throat, in which it had become lodged. The specimen concerned is a common fresh water fish of the clear streams of Southern Japan, locally known as Oyarami or Kawamebaru, very closely related in fact as well as in appearance to some of our American freshwater sun-fishes (*Centrarchidae*). Its scientific name is *Bryttosus kawamebari* (Schlegel).

The specimen is virtually perfect, although apparently somewhat emaciated. How it was swallowed is not explained, but it is evident that its sharp dorsal spines would hold it in place once swallowed. The specimen was presented to Stanford University by Dr. Toyoji Nishiyama, of the Municipal Hospital at Kuverme, at the suggestion of Dr. Chiyomatsu Ishikawa, of the Imperial University of Tokyo.

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SCIENTIFIC BOOKS

Human Origins, a Manual of Prehistory. By GEORGE GRANT MACCURDY, *Ph.D.* Vol. I, *The Old Stone Age and the Dawn of Man and his Arts,* 440 pages; Vol. II, *The New Stone Age and the Ages of Bronze and Iron,* 516 pages. D. Appleton and Company, New York.

A READER whose interest in the prehistoric archeology and ethnology of Europe is professional will scrutinize the qualifications of the author of any work on this subject before turning over the pages of the work itself. Such a reader will desire to know whether or not the author has a first-hand knowledge of his subject. What experience has he had in the excavation of archeological sites? Does he know the collections of prehistoric material in European museums? Is he competent to pronounce upon geological and paleontological questions? Is he a physical anthropologist? Unless he is satisfied with the qualifications of the author, the worker in the field of knowledge dealt with will decline to give serious consideration to his writings.

In the present instance the reader may proceed to the perusal of "Human Origins" with complete confidence that it is the output of a competent scientist writing within the field of his own special knowledge and experience. Dr. MacCurdy has been trained in the methods of European prehistoric archeology and in the technique of physical anthropology by the foremost Continental authorities in these subjects. For many years he himself has conducted excavations in prehistoric European sites; his writings have furnished American anthropologists with the latest information on progress of the science in Europe; he is one of the two or three Americans who are recognized abroad as authorities on European prehistoric archeology. Further, he brings to bear upon European questions his extensive experience in the archeology and physical anthropology of the New World.

To a teacher of European prehistory the outstanding merit of Dr. MacCurdy's work is its comprehensiveness. It deals with the entire prehistoric period. It does not leave the reader stranded on a terminal moraine in the company of fossil men, extinct animals and chipped stone implements. With the exception of Déchelette's great work ("Manuel d'archéologie préhistorique, Celtique et Gallo-Romaine"), now somewhat out-of-date, "Human Origins" is the one satisfactory attempt to carry the prehistory of man in Europe through to the present era in an adequately detailed treatment.

The first volume deals with the Old Stone Age and fossil man. Here Dr. MacCurdy is at his best. Climatic and geographical conditions, prehistoric chronology, types of fossil men and animals, industries and arts of the various archeological periods—all these subjects are thoroughly discussed, but with due regard for their relative importance. A disproportionate amount of space is not allotted to any particular feature. MacCurdy does not build his book upon some one aspect of prehistory, subordinating all other subjects to that of his own specialized knowledge and interest. A few crucial points in this volume should be noted. The author accepts the Foxhall eoliths of the Pliocene period; he assigns the Acheulian industry to the Rissian glaciation and places the beginning of the Mousterian industry in the third interglacial (Riss-Würm) period; he regards the Piltdown mandible as human, but is not certain that it belongs with the associated brain-case fragments. The section on fossil man is concise but complete. In the opinion of the reviewer, Dr. MacCurdy does not sufficiently consider the evidence pointing toward the existence of an essentially modern type of man in the Lower Paleolithic Age.

The second volume is devoted to the Mesolithic, Neolithic, Iron and Bronze Ages and to valuable appendices dealing with the stratigraphy of paleolithic sites and with the distribution of paleolithic art and of prehistoric monuments. Appreciation of the inclusion in this work of a summary of the early metal periods has already been expressed. What the author has to say of the Bronze and Iron Ages is, so far as it goes, excellent. But of the 918 pages of text, plates and bibliography included in the two volumes, only 52 pages are devoted to the Bronze Age, and the Iron Ages are crowded into 71 pages. Yet from the historical, ethnological or archeological viewpoints these are the most important periods of European prehistory. Fossil man is accorded 136 pages of discussion and recent man receives a scant 7 pages. There is no adequate treatment of late prehistoric and proto-historic racial movements. The reviewer does not cavil at the thorough and detailed treatment of the Paleolithic Age to which Dr. MacCurdy has devoted the bulk of his work. He only regrets that the author did not extend his treatise sufficiently to satisfy also the acute academic need