SCIENCE:

PUBLISHED BY N. D. C. HODGES, 874 BROADWAY, NEW YORK.

SUBSCRIPTIONS.—United States and Canada.....\$3.50 a year.
Great Britain and Europe..... 4.50 a year.

To any contributor, on request in advance, one hundred copies of the issue containing his article will be sent without charge. More copies will be supplied at about cost, also if ordered in advance. Reprints are not supplied, as for obvious reasons we desire to circulate as many copies of *Science* as possible. Authors are, however, at perfect liberty to have their articles reprinted elsewhere. For illustrations, drawings in black and white suitable for photo-engraving should be supplied by the contributor. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication, but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinions expressed in the communications of our correspondents.

Attention is called to the "Wants" column. It is invaluable to those who use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The "Exchange" column is likewise open.

BOGDANOV ON THE PRIMITIVE RUSSIANS.

BY JOHN BEDDOE, LL.D., F.R.S.

THE Anthropological Congress lately held at Moscow, however much its attractions and its attendance may have been diminished by the cholera scare, has at least produced one very notable and interesting paper—that by the veteran Professor Anatole Bogdanov, entitled "*Quelle est la race la plus ancienne de la Russie centrale?*" In it Bogdanov recalls the fact that twenty-five years have elapsed since he published his first researches into the subject on which he now delivers a fairly matured opinion. During a great part of the interval he has been laboring in this field and collecting material, not from the centre only, but from all parts of Russia, though at times he seems to have abandoned the effort for a while in a kind of despair.

His earlier researches led him to form the opinion that the kurgans (tumuli) of central Russia, believed to date from the ninth up to even the fifteenth century, contained the remains of two races, one dolichocephalic, tall and strongly made, with light-brown hair, the other smaller, with short, broad head and dark-brown hair. The former he found preponderated in the earlier kurgans, and in the south-western part of the central provinces, the latter at later dates and more to the north-east. In spite of the mode of location, but in accordance with the apparent dates, those who considered these facts mostly agreed that the dolichocephals were of Finnish kindred, Merians probably, and that the shorter heads belonged to the Slavs who invaded and incorporated them.

Later discoveries and the products of a wider field do not, in Bogdanov's opinion, confirm this view. These long skulls, which, though the occiput projects considerably, have usually well-developed frontal regions, and are by no means of low type, are found to prevail in the older interments throughout the west and south as well as the centre of Russia, while short heads abound in the north and east, in the ancient kurgans of the Uralian region and in those of the Bashkir territory. Bogdanov inclines to the opinion of Poesche, that the Slavs "descended in reality from a dolichocephalic source." And, seeing that the modern Slavs are on the whole moderately brachycephalic, he thinks that the prevailing form has somewhat changed through contact and crossing with races having broader heads (meaning probably the Mongoloid races which lie and have lain to the east of them), but also owing to the operation of other (external) causes. "With the progress of civilization," he says, "begins another series of influences, which has played a great part in the history of peoples, and may play a still greater one in the future, because the conditions of civilization bring about necessarily in the course of time an increase of brachycephalism. . . . Dolichocephalism declines more and more in Europe, and the heads become larger and finer."

Thus does Bogdanov range himself on the side of the short heads in the curious controversy which is arising in Europe as to the relative merits of the two leading forms of cranium, and to which Obhedenare, Laponge, and Von Ammon have contributed both facts and opinions. I recollect asking Professor Rokitsky, five and thirty years ago, whether the Czechs were not brachycephalic. Rokitsky was himself a Bohemian, and he was evidently nettled by a question which he thought touched upon a weak point in his fellow-countrymen. "Ah! well!" he said, "they are a very clever people for all that." On the other hand, Messrs. Jacobs and Spielmann, in their recent paper on the physical characters of British Jews, almost apologized for the long-headedness (in a physical sense) of the Sephardim, as a mark of inferiority! Since Topinard claimed the Aryan language as the original property of the short-headed Kelto-Slavo-Galcha family, their congeners have taken heart, and threaten to push us long-heads from our stools of conceit.

Whence came these aboriginal dolichocephals of Russia? "Not from Asia or the Caucasus," says Bogdanov. "It is more likely that they came from the Danube, where we find at present dolichocephaly predominant [in Bulgaria]. They probably followed the Dnieper into White Russia, thence to Novgorod and into Sweden. This was the northward stream. About the same time there was probably an eastward current through Minsk to Yaroslavl and Moscow, and a western one by Galicia, the Vistula, and the Danube."

ON "TYPE-SPECIMENS" AND "TYPE-FIGURES" IN ENTOMOLOGY.

BY W. F. KIRBY, LONDON, ENG.

A "TYPE SPECIMEN" is the specimen of an insect from which the original describer drew up the first description of a species; and it is often of great importance to settle disputed points of nomenclature, where any doubt exists respecting the actual identification of a species; for if we are certain that we have the original specimen before us, no further dispute is possible. A "type-figure" is the figure quoted by the original describer as illustrating his species, or is a figure supposed to represent the species published by a later author.

This appears plain enough; but in practice it is not always satisfactory. The specimens described by the older authors, such as Linné and Fabricius, are not always in existence, and in other cases it is not always certain that the specimens in various old collections supposed to represent the types of these authors are actually the real specimens which they described. Again, Linné frequently quoted several figures of different species as illustrating one of his species; and, in several other cases, he seems to have described quite different species in his successive works. Under these circumstances it does not follow that a specimen, even if ticketed by Linné himself, is necessarily the species which he originally described. Some of the later authors, too, such as Müller and Hontheim, have figured insects as species of Linné, and applied wrong Linnean names to their figures in the most reckless manner.

In the case of Fabricius, we already meet with far more careful and conscientious work; and when Fabricius describes an insect from a known locality, there is often very little doubt about what he really intended. But his names, too, were frequently misapplied by his contemporaries; and it is only lately that several insects which he described from India, but which his contemporaries mistook to refer to European species more or less resembling them, have been correctly identified. Gross errors, too, have been committed by certain recent authors who have found specimens of insects supposed to have been named by Fabricius in old collections, and have jumped to the conclusion that they were his original types, though neither the locality nor the description may have applied to them at all. This does not apply to collections indubitably referred to by Fabricius, such as the Banksian and Hunterian, which may usually be regarded as authoritative.

Again, some authors have cared more for the condition of their specimens than for scientific accuracy, and may in some cases have actually got rid of their own types and replaced them with better specimens, possibly of a different species more or less re-