

provide me with a supply of emu flesh and eggs, and so on right through all of the totems. . . . It is the duty of every one to supply certain other older people with food, and this they do cheerfully and ungrudgingly. In this way and in accordance with the needs and conditions of the community, these savages have long ago settled the question of an old-age pension, or rather they have rendered any such thing quite unnecessary."

The remarkable marriage-systems of the Arunta and Urabunna are repeated with varying gradations right through the central tribes. As to the "group-marriage" of the Urabunna, the authors now state explicitly that the supernumerary husbands and wives are called *Piraungaru*, as amongst the Dieri. The present writer once compared the facts with Mr. Howitt's evidence as to the Dieri custom. The authors repeat with insistence that "individual marriage does not exist either in name or in practice amongst the Urabunna tribe." Again, "this state of affairs has nothing whatever to do with polygamy any more than it has with polyandry," a statement which I confess

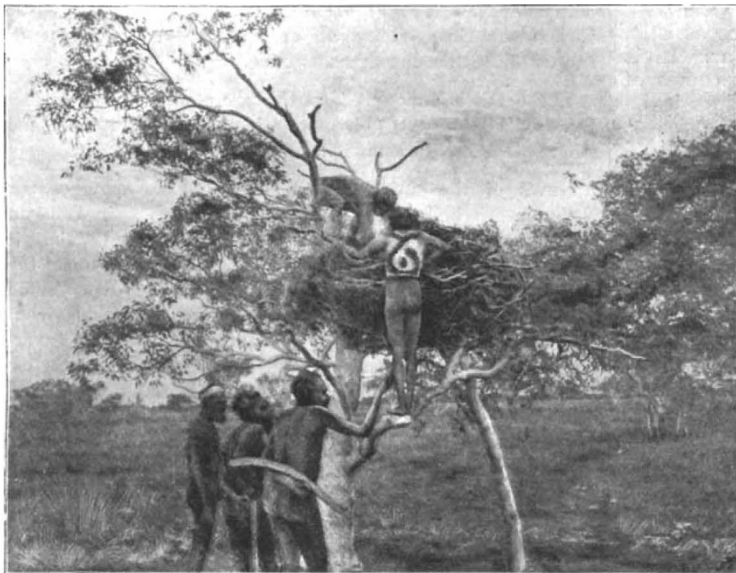


FIG. 2.—Visit to tree grave at sunrise, a few days after the death of a man, to try and discover some clue to the supposed murderer. Warramunga tribe. The men in the tree are examining the body.

I do not understand. They add that this group-marriage is not abnormal, because a gradation to individual marriage can be traced among the other tribes; but what we suggest is that group-marriage is abnormal for humanity as a whole. As to the connection of totemism with the bisectonal marriage-system, their conclusion for these tribes is important:—"the two systems have become associated together in various ways in different tribes, but are perfectly distinct from one another in origin and significance." The account of relationships is fuller than before. New facts as to the custom of exchanging wives are given, and in particular the account of the elaborate Fire Ceremony of the Warramunga, a typical Saturnalia, proves that one object at least of these primitive "bursts," in which everything is topsy-turvy and goes by opposites, is, as the present writer had suggested, to promote harmony and union, "to make every one good-tempered and kindly disposed."

Two remarkable beliefs, which were among the new facts brought to light by the previous work, are found to prevail right through the tribes. These are the

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belief that each individual is the reincarnation of an ancestor, and the queer notion, difficult to regard as absolute, that the intercourse of the sexes has *nothing to do* with conception. The Urabunna and Warramunga systems necessitate that in each successive reincarnation the spirit-child changes its sex, its totem, and its moiety. There are curious folk-tales, in one of which a man propagates himself by fission, in another by a sort of budding; the hero of another shakes himself, whereupon children emanate from his muscles. We find new "totems," such as darkness, "laughing boy," and "full-grown man," which will give pause to framers of definitions of this very comprehensive term. *Intichiuma* ceremonies are actually performed by the Kaitish to increase the supply of flies and mosquitoes! Further interesting details are given as to those interesting articles, the *Churinga*, or sacred bull-roarers; in one case they are used to effect moral amelioration—to lessen a man's appetite and to make him willing to share his food with others, he is rubbed and prodded violently in the stomach with a heavy stone *churinga*. One incident of the initiation of

young men among the Urabunna is a sort of tossing in the blanket—without the blanket; the patient is smacked as he comes down to a chorus of "I will teach you to give me some meat." Everyone here is a worker of magic. Husbands and wives are obtained by its means; the charms of the fair sex are literally "charms." A popular cure for head-ache or stomach-ache is to wear your wife's bonnet or its native equivalent. Among these tribes, as also shown in the earlier work, magic practically takes the place of religion. The Central Australian is a professing atheist; at initiation he learns that "the spirit creature whom up to that time as a boy he has regarded as all powerful is merely a myth, and that such a being does not really exist, and is only an invention of the men to frighten the women and children." In this connection one wonders if the Central Australian really represents a more primitive stage of culture than other savages.

A very full description is given of the tools and implements used by the natives, and of their decorative art. A remarkable application of the latter is

to be found in the ground-drawings, showing considerable power of design, which are made for the numerous ceremonies.

If there is any defect in this fine monument of anthropological science, it is perhaps one that is due to its chief merit—the objective character of the study; one desiderates further analysis of the psychology of the blackfellow.

Thanks to investigators like Howitt, Fison, Roth, and Spencer and Gillen, we know the Australian of the east and centre better than any savage in the world, and we may hope that our authors will be able, before it is too late, to crown their work, already invaluable, by a study of the western districts, at present a *terra incognita*.

ERNEST CRAWLEY.

THE WIRELESS TELEGRAPHY BILL.

A MEMORANDUM explanatory of the Wireless Telegraphy Bill which was introduced by Lord Stanley, the Postmaster-General, has been issued as a parliamentary paper. We have already referred to the

proposals made in this Bill in our notes columns, but a brief abstract of the memorandum and of the provisions of the Bill may be of interest to readers of NATURE. The paper opens by pointing out that the rapid development of wireless telegraphy which has been and is still going on makes some form of State control practically essential in the interests of the naval and military requirements of the Empire. The United Kingdom stands, in fact, almost alone in not having any such control; in ordinary circumstances the powers of the Postmaster-General do not extend beyond the three-mile maritime limit; although in times of war or emergency the Government can take over the telegraphic business of incorporated companies, this power does not extend to the installations of private individuals. Obviously a private individual, were he maliciously inclined, could cause a great deal of trouble with a wireless telegraphy installation in the neighbourhood of important strategical signalling stations. A certain very limited power of control exists by an arrangement already made with several foreign Powers by which these Powers undertake not to permit the establishment of systems for communication with the United Kingdom except after consultation with the British Government; this safeguard, such as it is, would naturally fail in the event of war. It is especially in the case of war that control becomes of vital importance, and it is necessary to introduce legislation to meet this event.

The points which have to be particularly considered are:—

(1) That there must be means of preventing information being conveyed to the enemy, and of preserving secrecy as to plans and preparations.

(2) That all possibility of outside interference with Government signalling must be removed.

It is therefore desirable for the Government to have in their power (a) the control of the transmission of messages; (b) the prevention of the establishment of unauthorised stations; and (c) the disposition of stations in the most advantageous way so as to obtain the best results in working, free from interference, accidental or intentional.

In addition to these strategic reasons other considerations make Government control of wireless telegraphy desirable, notably, for example, the advantages to be gained by international agreement on the subject, which at present the British Government could not enter into as it has not the power to enforce any agreement which might be made.

On all these grounds it is proposed in the Bill that the Government shall exercise control by granting licences; these shall be granted by the Postmaster-General, but the consent of the Admiralty and the War Office shall be necessary in order that the strategic considerations may be duly regarded. The Board of Trade is to be added as a third party whose consent is necessary; this is done because the progress of wireless telegraphy affects so closely the trade and commerce of the country. The Bill provides penalties for the unlawful establishment or working of a wireless telegraph station. It is also provided that special licences may be granted by the Postmaster-General for experimental purposes. It is understood that the Government proposes to push the Bill through this session if possible, the reason for its wishing to do so being partly that it may have power to act at the next international wireless telegraph conference, which is to be held early in October, probably at Berlin.

M. S.

NOTES.

A STANDING Committee on machinery designs has been appointed by the Admiralty. Prof. A. B. W. Kennedy, F.R.S., is to act as president of the committee; the other members will be Engineer Rear-Admiral J. A. Smith and Mr. J. T. Milton, chief engineer-surveyor to Lloyd's Register.

A REUTER telegram from Vardö, Norway, states that the relief party of the Ziegler North Polar Expedition arrived at that place on August 3 on board the steamer *Frithiof*. In consequence of fog and ice the *Frithiof* had been unable to establish communication with the expedition on board the *America*. A later telegram states that the *Frithiof* left Vardö on Friday last for Franz Josef Land.

A REUTER telegram from Wellington, New Zealand, reports that the heaviest earthquake for many years was experienced at that place at 10.22 on the morning of August 9. Several public buildings were seriously damaged, and many private firms and householders sustained heavy losses. No loss of life is reported. The shock was felt in both islands. A slight earthquake shock was also felt at Lisbon and its vicinity at 11 o'clock on the night of August 8, but no damage was done.

THE death is announced, at the age of fifty-nine years, of Dr. Carl Weigert, director of the Pathological and Anatomical Institute of Senckenberg.

NEWS of the sudden death, on the Continent, of Sir William Mitchell Banks has been received. Sir William Banks was born in 1842. He was educated at Edinburgh Academy and University, became M.D., and took the university thesis medal in 1864, and in 1899 was made honorary LL.D. He acted for a time as demonstrator of anatomy in the University of Glasgow, and settled in Liverpool in 1868 as a consulting and operating surgeon, being particularly distinguished in cancer research. Dr. Banks, who was knighted in 1899, rendered valuable service as one of the founders of the new Royal Infirmary, Liverpool, in the establishment of University College, and in the movement which resulted in the formation of Liverpool University.

MAJOR RONALD ROSS, C.B., F.R.S., and Dr. Weir Mitchell have been elected foreign corresponding members of the Paris Academy of Medicine.

THE Vienna correspondent of the *British Medical Journal* states that a meeting was recently attended by the Senate of the Vienna University to celebrate Prof. v. Vogl's seventieth birthday, and to bid him farewell on his retirement from the position he has so long held in the university. Prof. v. Vogl's successor has not yet been appointed, but he will, it is thought, probably be one of the retiring professor's former assistants.

THE sixty-first annual congress of the British Archaeological Association was opened at Bath on Monday last, and will remain in session until Saturday next.

THE arrangements for the annual meeting of the Society of Chemical Industry, which is to take place in New York from September 7 to 12 next, have now been completed. The president, Sir William Ramsay, K.C.B., F.R.S., is to give an address in the gymnasium of the University of Columbia on September 8, and in the evening of that day the annual dinner of the society will be held at the Waldorf-Astoria. A tour has been arranged, to last from Monday, September 12, until Thursday, September 29, with the object