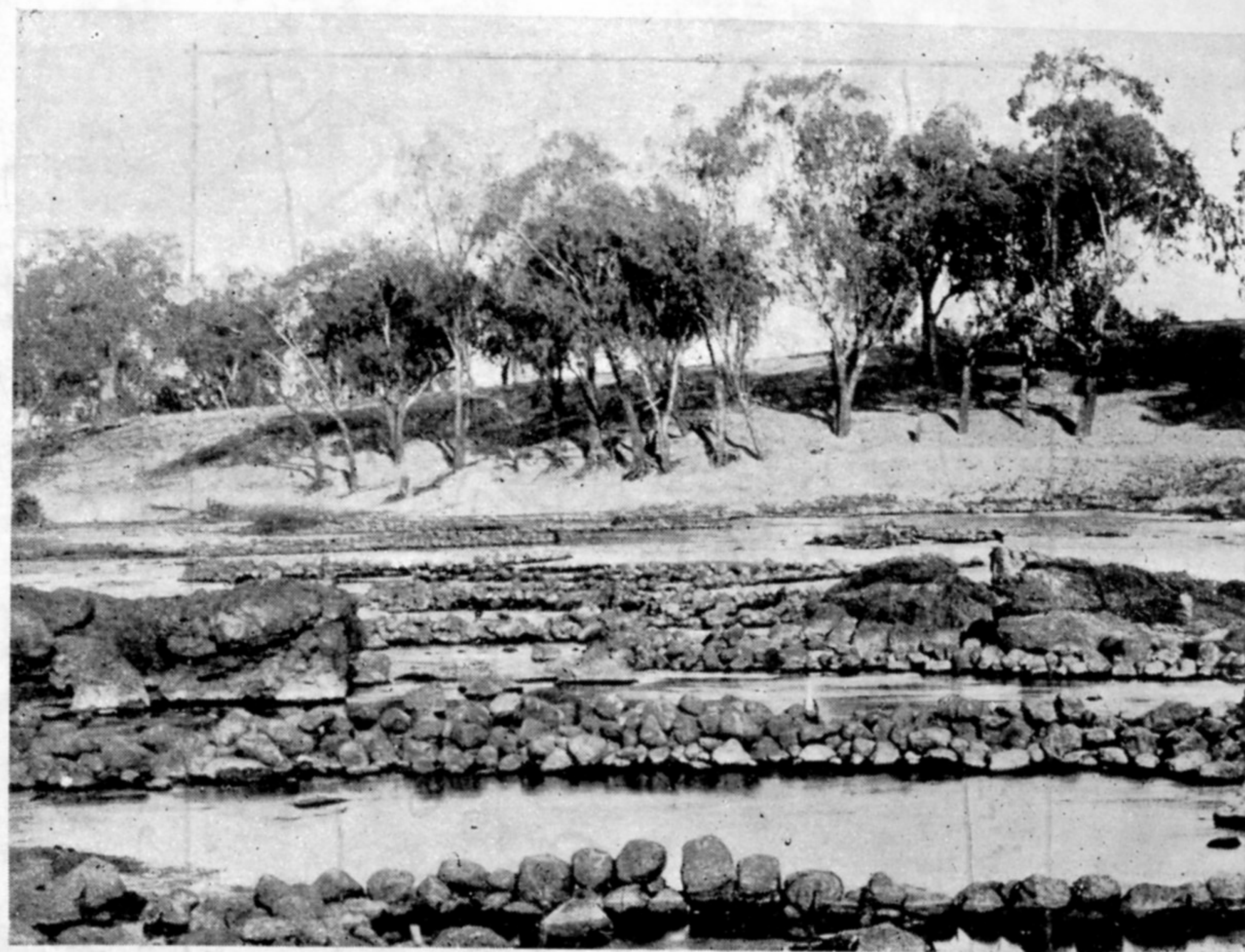


plan; and the mass of desert sandstone, with an uneven top, on the right-hand side of the picture, corresponds to the long rock G, appearing in black on the plan, due north of the rock at B.



11. Photographic View of the Ngünhu or Native Fish Traps in the Darling River at Brewarrina.

The mark X, visible on one of the trees on the opposite bank, in the middle of the picture, indicates the flood-level of the Darling River.

It is hoped that the two illustrations now supplied—the ground plan and the perspective view—together with the descriptive letterpress, will enable the reader to form a more realistic conception of the aboriginal fisheries at Brewarrina than has been possible hitherto.

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# NOTES

ON THE

## ABORIGINES OF NEW SOUTH WALES.

BY

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"ETHNOLOGICAL NOTES ON THE ABORIGINAL TRIBES OF NEW SOUTH WALES AND VICTORIA,"

"NOTES ON THE ABORIGINES OF THE NORTHERN TERRITORY, WESTERN AUSTRALIA,  
AND QUEENSLAND," ETC., ETC.

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## NOTES ON THE ABORIGINES OF NEW SOUTH WALES

(By R. H. Mathews, L.S., Associé étranger de la Société d'Anthropologie de Paris.)

THE problem of the first peopling of Australia cannot be discussed in a brief pamphlet such as this; but it may be said in passing that there appears to me nothing improbable in the assumption that the native inhabitants had an independent development in Northern Australia, or at any rate in the tropical regions between the present limits of the continent and Southern Asia, the intervening space having since been partially submerged. When we closely inquire into their customs, the common origin of all Australian tribes becomes evident.

This pamphlet contains some brief notes on a few of the most important customs of the aborigines of New South Wales, arranged under the following heads:—

1. Sociology of the Ngēumba Tribe.
2. The Bora of the Kamilaroi Tribes.
3. Aboriginal Weapons, &c.
4. Aboriginal Rock Paintings.
5. Aboriginal Rock Carvings.
6. The Yaroma: a Legend.
7. Pirrimbir, or Avenging Expedition.
8. Bull-roarers used by the Aborigines.
9. Aboriginal Songs at Initiation Ceremonies.
10. Some Curious Beliefs.
11. The Aboriginal Fisheries at Brewarrina.

All the above divisions of the subject have been much condensed from comprehensive articles contributed by me to the Royal Society of New South Wales, the Geographical Society of Queensland, the Royal Society of Victoria, the Anthropological Institute of Great Britain, and the Victoria Institute, London. The complete treatises from which the above abridgments have been made, as well as many other articles dealing with all the customs of the Australian aborigines, may be obtained from the author.

### 1. *Sociology of the Ngēumba Tribe.*

The Ngēumba speaking people formerly occupied the country from Brewarrina on the Darling River southerly up the Bogan almost to Nyngan. They stretched thence westerly beyond Cobar and Byrock, including also the upper portions of Mulga Creek and surrounding country. I shall here supply an abridged account of their social organisation, which was first published in my "Ethnological Notes on the Aboriginal Tribes of New South Wales and Victoria."\*

The community is divided into two primary cycles, called Ngurrawun and Mūmbun, with their feminine equivalents Ngurrawunga and Mūmbunga. The Ngurrawun cycle is again divided into two sections, called Ippai and Kumbo, and the Mūmbun cycle into two, called Kubbi

\* Journ. Roy. Soc. N.S. Wales, xxxviii, 203-331.



and Murri. In each of these sections the names of the women are slightly different from those of the men, as will appear from the following synopsis, which also shows what sections can intermarry, and to what section the resulting offspring belongs:—

<i>Cycle.</i>	<i>Mother.</i>	<i>Father.</i>	<i>Son.</i>	<i>Daughter.</i>
Ngurrawun	Butha	Murri	Ippai	Ippatha
	Ippatha	Kubbi	Kumbo	Butha
Mumbun	Matha	Kumbo	Kubbi	Kubbitha
	Kubbitha	Ippai	Murri	Matha

It will be observed that the children inherit the name of the other moiety of their mother's cycle. Thus, if a Ngurrawun man, of the section Ippai, marry a Mumbun woman of the section Kubbitha, the offspring will be Mumbun the same as their mother; they will not bear the name of her section, but will take the name of the other section in the Mumbun cycle—the sons being called Murri and the daughters Matha. Again, the children inherit their mother's totem; for example, if the mother be a pelican, her sons and daughters will be pelicans also. In other words, the women of a cycle reproduce each other in continuous alternation. The totems remain constantly in the same cycle as the women, and are accordingly transmitted from a mother to her offspring.

Like the people themselves, everything in the universe, animate and inanimate, belongs to one or other of the two cycles, Ngurrawun and Mumbun. And every individual in the community, male and female alike, claims some animal or plant or other object as his *dhingga* or totem. The totems of the Ngurrawun cycle are common to the two sections, Ippai and Kumbo, of which it is composed; and the Mumbun totems are common to the sections Kubbi and Murri.

Among the *dhingga* or totems of the Ngurrawun cycle may be mentioned the following:—Emu with dark head, kangaroo, bandicoot, bilbai, pelican, opossum, swan, plain turkey, mosquito, musk duck, porcupine, bat, dog, kurrea, bulldog-ant, yellow-belly fish.

The undermentioned totemic names, or *dhingga*, may be enumerated as some of those belonging to the Mumbun cycle:—Emu with grey head, house-fly, tree iguana, ground iguana, eaglehawk, scrub-turkey, shingle-back, large fish-hawk, wanggal or small night-jar, black duck, padamellin, crow, carpet snake, codfish, bream.

Beside the cycles, sections, and totemic groups above illustrated, the whole community is further divided into what may, for convenience of reference, be called "castes." These castes regulate the camping or resting places of the people under the shades of large trees in the vicinity of water or elsewhere. The shadow thrown by the butt and lower portion of a tree is called Nhurrē, whilst the shade of the top of the tree, or outer margin of the shadow, is Winggu.

Again, the men, women, and children, whose prescribed sitting places are in the butt and middle shade of the tree are called Guai'mundhun, or sluggish blood, whilst those who sit in the top or outside shade are designated Guaigulir, or active blood. This further bisection of the community into Guaimundhun and Guaigulir, which may be referred to as "blood" divisions, has happened so long ago that the natives have no explanation regarding it. The Guaigulir people—those who occupy the Winggu or shade of the branches—are supposed to keep a strict watch for any game which may appear in sight, the approach of friends or enemies, or anything which may require vigilance in a native camp.

Each cycle, and consequently every section and every totemic group, contains men, women, and children belonging to the Guaimundhun and Guaigulir bloods, with their respective shades. A Guaimundhun man of the Nhurrē shade marries a Guaigulir woman of the branch shade. A Guaigulir man of the Winggu shade can marry a Guaimundhun woman of the butt or middle shade. A Guaimundhun mother produces Guaigulir children, who, moreover, take their mother's shade. A Guaigulir mother produces Guaigulir children, belonging to the Winggu shade.

Taking an example from the foregoing table, we see that Murri marries Butha, who is his tabular or "No. 1" wife. But he has the right, in certain cases, of taking a Matha maiden instead, whom we shall call "No. 2." He could, subject to prescribed restrictions, have an Ippatha allotted to him as "No. 3." Or he might, instead of any of these women, espouse a Kubbitha, whom we shall distinguish as "No. 4."\*

Another custom of wide prevalence is that a man of a given totem must espouse a woman whose totem is not the same as his. This law, like that of the cycles, sections, bloods, and shades, is subject to departures; for example, a man who is a Kangaroo might be allowed to take a Kangaroo wife. There is no such thing as a cast-iron partition of the community into two exogamous moieties. The only law of the Ngēumba sociology which admits of no variation is that the cycles and other divisions just enumerated are irrevocably transmitted through the mothers.

All that has been said in the preceding pages respecting the Ngēumba is equally descriptive of the sociology of the Wongaibon, Kūrnū, Kamilaroi, Pikumbil, Yuāleai, and kindred tribes. The nomenclature of some of the divisions may be more or less different, but the fundamental principles are identical in them all. Those readers who may be desirous of studying this interesting subject further are requested to peruse my "Sociology of some Australian Tribes,"† and "Ethnological Notes on the Aboriginal Tribes of Queensland."‡

## 2. The Bora of the Kamilaroi Tribes.

The Bora is a great educational institution for the admission of the youths of the tribe to the privileges, duties, and obligations of manhood. The ceremonies are apparently intended to strengthen the authority of the elder men over the younger, and to impress in an indelible manner those rules of conduct which form the moral and civil law of the tribe.

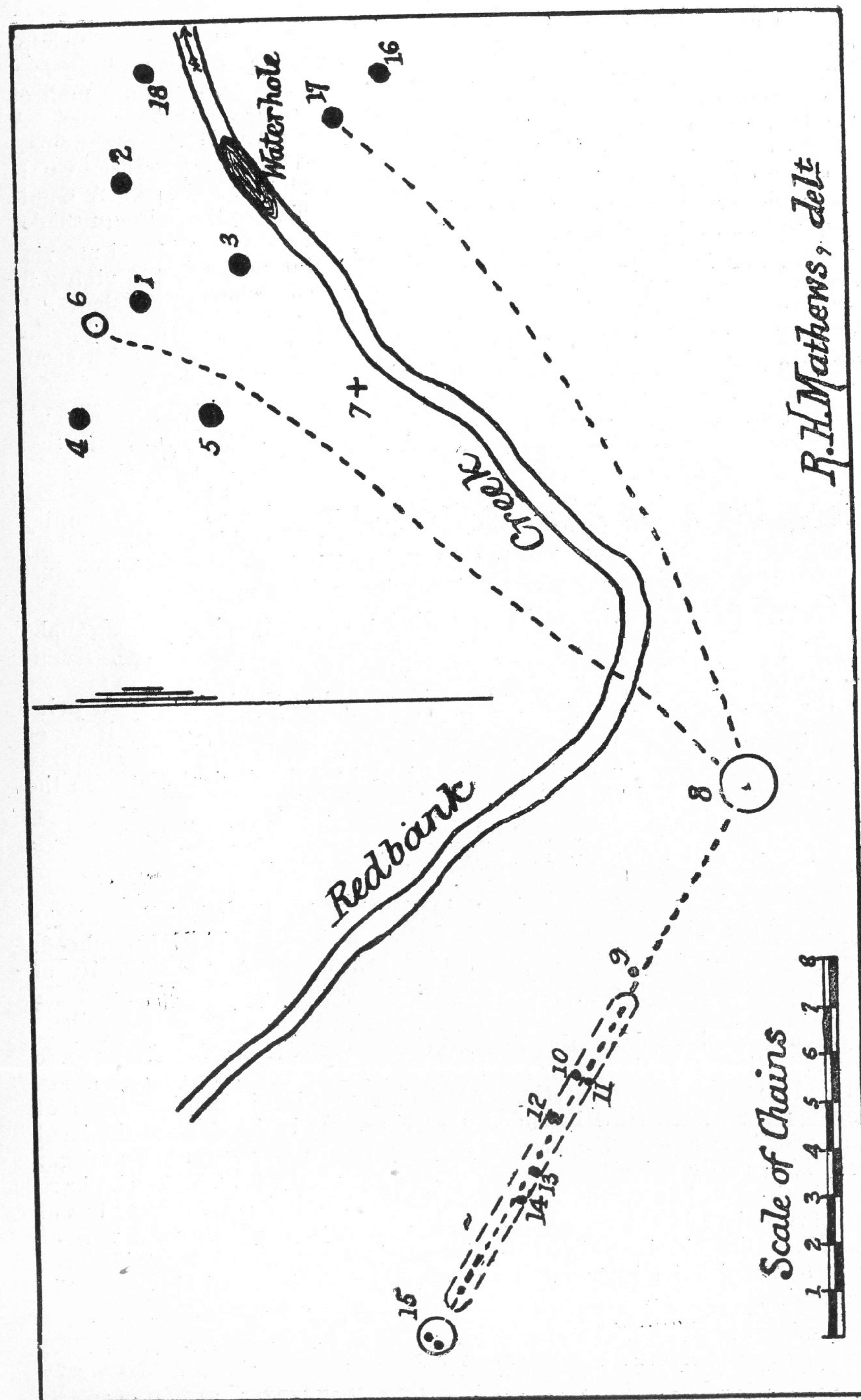
When it has been determined to call the people together for the purpose of celebrating the rites connected with the Bora, messengers are despatched to the different sections of the community informing them of the time and place of the intended gathering. It is the duty of the head men, who thus muster the people, to prepare the Bora-ground, and get everything ready prior to the arrival of the several contingents who have been invited to be present at the meeting. A suitable camping ground is accordingly selected near some river, creek, or waterhole in a part of the tribe's domain in which there is sufficient game and vegetable products to furnish food for all the people during the continuance of the ceremonies.

\* For examples of a number of marriages of men and women of the different bloods in the Ngēumba tribe, see the genealogical tables given in vol. xli of the Journal of the Royal Society of N. S. Wales, p. 79.

† Journ. Roy. Soc. N.S. Wales, xxxix, 104-123.

‡ Queensland Geog. Journ., xx, 49-75; *Ibid.*, xxii, pp. 82-86.





1. Plan of Bora Camp.

I cannot do better than describe a Bora camp, with its circles and other adjuncts, at which I was present in 1895, of which I have prepared an accurate plan from a survey made by me at the time. This camp was situated on the left bank of Redbank Creek, a small tributary of the Weir River, in the parish of Tallwood, county of Carnarvon, Queensland. The local Tallwood tribe, being the persons who had sent out the "invitations" by the messengers, were the first to occupy the ground, and pitched their camp at the point marked No. 1 on the plan; the Goondiwindi and Welltown people camped to the eastward, at No. 2; those from Kunopia and Meroe took up their quarters southward of the Tallwood tribe, at No. 3; the St. George contingent camped to the north-west, at No. 4; whilst the Moogan, Mungindi, and Gundabloui mob were located on the south-west, at No. 5 on the plan.

During every fine night there were special corroborees held at the spot marked No. 6 on the plan, each tribe taking its turn to provide the performers. Every evening at dusk and every morning at daybreak a bull-roarer was sounded by an old man in the adjacent scrub, but out of sight, and the women in the camp responded by singing bobbarubwar chants.

An unusual event happened at this camp which adds to its interest. The local Tallwood tribe at first selected the site of the camp on the southern or right bank of Redbank Creek, at No. 17, and the Kunopia contingent soon afterwards came and pitched to the southward of them, at No. 16 on the plan. Before any of the other tribes arrived, one of the young men of the local mob died from some pulmonary complaint, and, according to native custom, this necessitated a removal of the camp. As the Bora circles had then been formed and many of the trees marked, the choice of a new site for the camp was restricted to the opposite side of Redbank Creek, in order to be near the waterhole, the only water available. The point marked No. 7 on the plan was *ngooloobul*, or private meeting-place of the initiated men; and at No. 18 was a similar spot set apart for the women, where they met during the day to work at making head-bands, net-bags, and other occupations. *they*

About 15 chains in a south-westerly direction from the general camp, a small open space on the edge of a scrub was chosen as the site for the performance of the ancestral rites. A large ring, No. 8 on plan, called *boora*, 77 ft. 6 in. across one diameter and 72 feet across another at right angles to it, giving an average diameter of nearly 75 feet, was formed by scraping away the surface soil, which was utilised to make an embankment about 9 inches high around the circular space thus cleared. An opening about 2 feet wide was left in the north-east side of this bank, from which ran a narrow track, called *thoonburnga*, formed by scraping the surface of the ground smooth and piling the loose earth on either side. The bearing of this track was N. 62 deg. W., and in following it in that direction for 270 yards it was found to terminate at another and smaller circle, No. 15 on plan, called *goonaba*, 47 feet in diameter, which was bounded by a bank composed of loose earth, about 6 inches in height. The track, *thoonburnga*, entered this enclosure through an opening in its wall similar to that in the *boora* circle.

Within the *goonaba* ring, and near the farther side of it, were two tall, inverted stumps, which had been prepared in the following manner:—Two small trees had been dug out of the ground, by removing the earth from the roots for some distance around the base; their stems were then



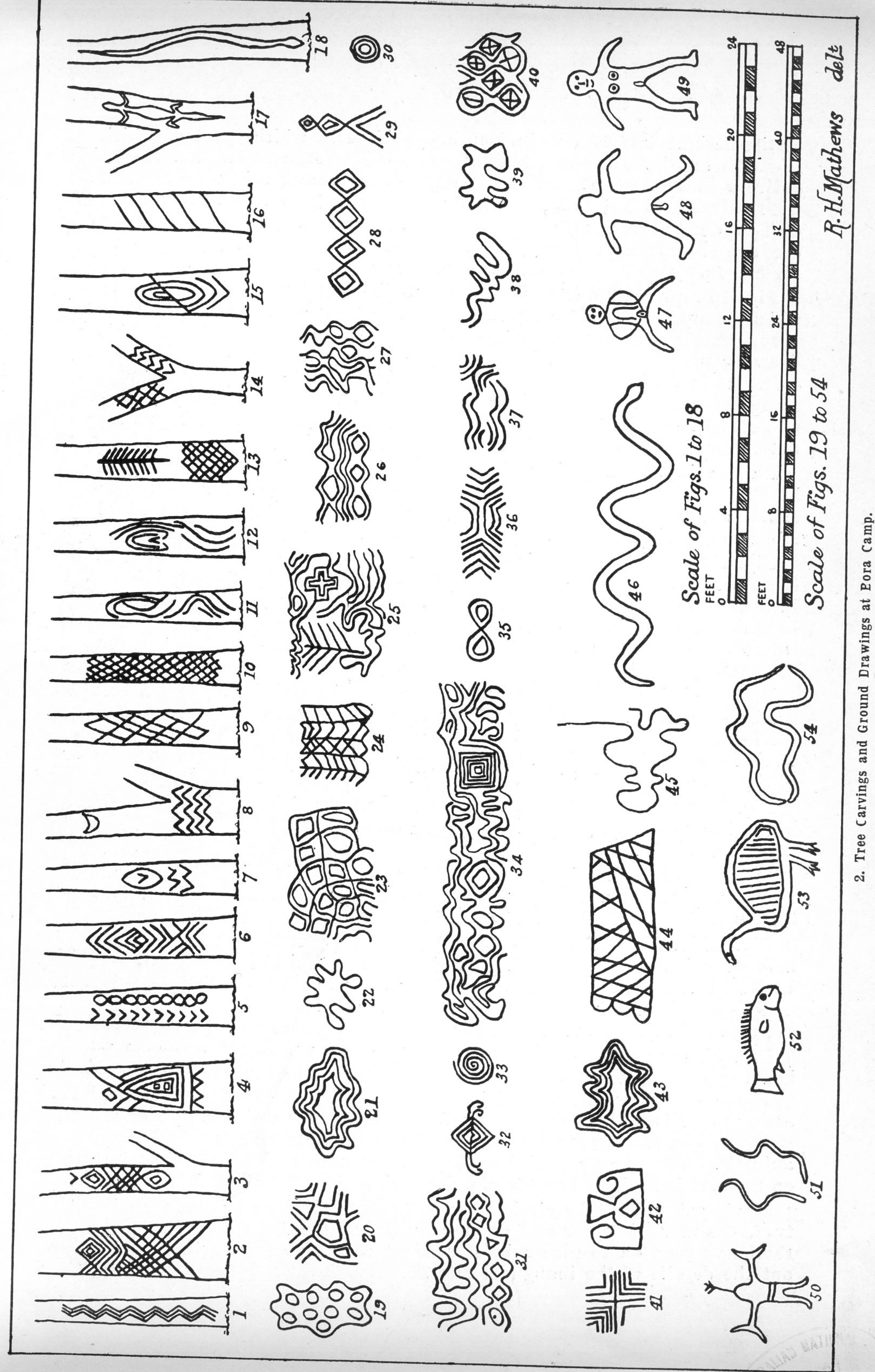
cut through about 8 feet from the base, and all the bark peeled off from the stem, as well as the spreading roots. These stumps were then carried to the *goonaba*, and holes dug in the ground, into which the upper ends of the stems were inserted and the earth filled in tightly around them to make them stand firm. The stumps were thus completely inverted, leaving the roots at the top, some of which extended outwards, almost horizontally, about 4 feet, and were ornamented by narrow strips of frayed bark twisted around them. These stumps, called *wardengahlee*, one of which was *belar* and the other *coolabah*, were 12 feet apart and 5 ft. 5 in. out of the ground—the stems and roots of both being smeared with human blood. The blood for this purpose was obtained by making small incisions, with a piece of sharp flint or shell, in the arms of several initiated men, and collecting the blood in vessels as it dripped from the wounds.

Starting from the larger, or *boora*, circle, and proceeding along the track, *thoonburnga*, it was found to enter the scrub almost at once, and at the distance of 87 yards, on the right-hand side, No. 9 on plan, was a representation of the arbour or "playhouse" of a bower-bird, *weeda*, containing a collection of small pebbles, fragments of bone, and the seeds of some wild fruits. In the mythologic past, the *weeda* was an eminent "medicine man," or *goondaidhar*, among the Kamilaroi and neighbouring tribes. At the distance of 143 yards from the starting point on the right side was the horizontal image of Baiamai, No. 10, with his wife on the opposite side, No. 11 on the plan. These two figures are delineated as 48 and 49 on Plate 2, and will be described presently.

Twenty-three yards beyond the two last figures was the *goomee*, or Baiamai's fire, No. 12 on the plan. In a forked box-tree, 80 yards back from the *goonaba*, on the left of the track, at the height of about 18 feet from the ground, was a tolerably good imitation of an eaglehawk's nest; the position of this tree is shown on the plan as No. 13. Fifteen yards from the last mentioned, towards the *goonaba*, was a small box-tree, along the bole of which a wavy band, about 2 inches wide, had been cut with a tomahawk through the bark, and extending from the ground to a height of 25 feet, representing a tree which had been struck by lightning (No. 14 on plan).

I will now proceed to describe some carvings copied by me from a number of trees which were scattered here and there along the track from the *weeda*'s arbour to the *goonaba*. These carvings are shown on Plate 2, hereto annexed, as Figs. 1 to 18 inclusive. Fig. 8 represents the crescent moon, cut through the bark, and a short distance below it are four zig-zag lines. This is the tree which contains the eaglehawk's nest already mentioned as No. 13 on the plan. On another tree, Fig. 13, there is a centipede 3 ft. 1 in. in length, with eighteen legs, chopped through the bark into the wood, with some diamond or lozenge shaped devices below it. On a forked box-tree was the outline of an iguana (Fig. 17), 5 ft. 2 in. long, cut through the bark. Fig. 18 represents a carpet snake 9 ft. 4 in. in length, with its head toward the ground, cut in the same manner. The marking on the remainder of the trees shown in the plate consists of the usual zig-zag, lozenge, oval, and other devices.

In the annexed plate I have reproduced some of the ground drawings copied by myself at the same Bora camp as that containing the trees already dealt with. Figs 19 to 45 will fairly represent the different patterns of *yowan* carved upon the turf on that occasion. The largest





of the designs was 37 feet in length by 7 feet in width, part of which is shown in Fig. 31; another was 29 feet by 5 feet, and is shown in its entirety in Fig. 34. Some of the smallest of these carvings in the soil were only 2 or 3 feet in length, filling out spaces between trees. A good deal of the soil cut out in carving these designs was used in building the raised representations of Baiamai and Gooberangalnga described farther on.

Fig. 46 represents a legendary, serpent-like monster called the Kurrea, which is supposed to have its abode in deep lagoons and other sheets of water, and devours human beings who may come within its reach. This drawing measures 39 feet in length, and its greatest width is about a foot. It is formed by a groove about 3 inches wide dug into the turf along its outline. Fig. 47 is a woman cut in the ground in a similar manner. The height is 7 ft. 4 in., but would be more if the legs were not so much distended.

Fig. 48 is a huge horizontal representation of Baiamai, lying on his back, formed by building up the loose earth, which was 1 ft. 2 in. high at the chest. The length of the figure was 9 ft. 6 in., and the width from hand to hand 9 feet.

Fig. 49.—On the opposite side of the pathway, close to the last described, was a figure of Gooberangalnga, the wife of Baiamai, formed in the same way, but with the addition of a coat of kneaded clay on top, in which were moulded the features of the face, the mammae, &c. The length of the figure was 10 ft. 9 in., with a distance of 8 feet between the hands.

Fig. 50 delineates a man with a boomerang in each hand, and a belt around the waist. The object 2 ft. 5 in. long rising from the top of the head was, the native artist told me, intended to represent a feather stuck in the hair. This drawing bears a striking resemblance to some of the aboriginal rock pictures found in other districts.

Fig. 51 represents two death adders, formed of raised earth, with their heads in the same direction. One of these reptiles is 9 feet long, the other 10 ft. 6 in.

Fig. 52.—This drawing, which is outlined by a nick dug into the soil in the way already stated, represents a cod-fish 9 feet in length, and 3 ft. 8 in. across the body.

Fig. 53 was intended to denote an emu, and was formed in the same manner as the last described. Its length from the bill to the tail was 12 ft. 6 in., and its height from the feet to the top of the back 7 ft. 9 in. The legs are short in proportion to the body, being only 2 ft. 6 in.—perhaps to indicate that the bird is sitting or crouching down.

Fig. 54 represents two more death adders, which are also formed by heaping up the loose earth into the required shape. Their heads and tails are almost touching, as if in the act of coupling, and the length of each reptile is a little over 16 feet. At intervals on either side of the *thoonburnga* there were imitations of the lairs and nests of different animals. The space containing the marked trees and all the drawings on the turf is indicated on the plan by broken lines from No. 9 to No. 15.

Having described the circles, the drawings raised and graven on the turf, the marked trees, and other adjuncts of the Bora encampment, I shall now pass on to give a brief account of the procedure in carrying out the details of the inaugural rites.

While the preparation of the Bora ground is in progress, the headman sends out messengers, as already stated, whom he selects from among his own people, a messenger being sent to each tribe required to be present. He is of the same totem as the sender of the invitation, and delivers it to a man of that totem in the tribe to which he is sent. Each messenger carries a bull-roarer (*murrawan*) and a number of kilts or "tails," and other articles comprising the simple dress of an Australian savage. He wears a painted head-band around his hair, in which are inserted small bunches of long green grass or leaves. Two are generally sent together, one of them being charged with the message, and carrying the sacred emblems, whilst the other merely keeps him company. When a messenger arrives near the camp to which he has been sent, he waits till the men have returned from their day's hunting, and then approaches the single men's quarters, close to which he and his companion sit down. Some of the men then go to the messengers and bring them into the camp. The headmen of the tribe are then brought together on the outskirts of the camp, and the messenger tells them where he has come from, at the same time producing the bull-roarer (*murrawan*) and other emblems of authority, which are handed round and inspected by all the old men present. The messenger remains with this tribe until the time arrives to start for the appointed meeting place. All the men, women, and children are then mustered up, and the journey commences towards the Bora ground—dances and songs being indulged in at the various camping places along the route.

On getting near the general camp, all the men paint and ornament their bodies, in accordance with the custom of their country, and the novices are painted red from head to foot. When within sight of the camp they give a shout, and march on to the *boora* ring, which they enter and call out the names of remarkable hills, waterholes, and camping places in their country. They also announce in the same way the totems of the principal men of their tribe. The local mob, and all the men who had arrived in previous contingents, are sitting round the ring, having assembled there when they heard the strangers approaching. They also now enter the circle and jump about, and, in turn, call out the names of important localities in their several districts, as well as the totems to which they belong.

Everyone then comes out of the circle, and the men of the newly-arrived mob go and assist their women to put up their quarters on the side of the main camp nearest their own country. After this, all the men of the combined concourse proceed along the pathway to the *goonaba* ring. The strangers are shown the images of Baiamai and Gooberangalnga, the gomee, the marked trees, and everything on the sacred ground. Two old men, having their bodies smeared with human blood, then ascend the *wardengahlee*, and stand on the top of the roots beating two nulla-nullas together. A number of men are standing around swaying a burning brand in one hand and a boomerang in the other. After this is concluded, all the men disperse to their respective camps.

Several days may intervene between the arrival of the various tribes who are summoned to be present; and in order to occupy and amuse the people during this time, corroborees are held every fine night by the light of the camp fires, each tribe present taking its turn to provide the evening's amusement.



When all the tribes who are expected to attend the Bora have arrived at the main camp, the headmen assemble at the *ngooloobul*, or private meeting place, and after a consultation among themselves, they fix the day on which the novices will be taken away for the purpose of initiation.

Early in the morning the novices are painted with red ochre, and are brought into the ring, and placed sitting down on the bank, their mothers and the other women being outside, hidden behind a screen of boughs erected for that purpose. All the women and children are then told to lie down, and are covered over with rugs, bushes, or grass, which have been placed in readiness for the purpose, and a few men armed with spears are deputed to watch that the covering is not removed.

When all the arrangements have been completed, the sound of the bull-roarer is heard in the direction of Baiamai's ground, and the men at the camp stand in a semicircle outside the ring, beating together two nulla-nullas, or any other two weapons which happen to be at hand. One of the headmen then call out in his own language "Here he comes,"—others shout "Go away," to make the women believe they are addressing Dhurramoolan, a malevolent being, who is supposed to preside over the ceremonies. A number of men are now seen coming along the track from the direction of the *goomee*, and enter the circle and run inside the bank, beating the ground with pieces of bark, *mungawans*, about 2 ft. 6 in. long, 4 inches at the widest end, and 2 inches at the other, so that they can be gripped in the hand. The men have a *mungawan* in each hand, with which they forcibly strike the ground alternately at every step, but utter no other sound. Having gone round the circle once, they run away noiselessly along the track to the *goomee*. As soon as they have gone, some of the men standing round pick up firesticks, and throw them into the ring, scattering the embers about, for the purpose of making the women believe Dhurramoolan did this when he came for the novices. There are also two men, one on each side of the circle, vigorously swinging bull-roarers. When these two men become giddy, caused by turning round, others take their places. Amid the terrific and deafening din made by the rattling of weapons, and the weird noise of the bull-roarers (*murrawans*), the guardians advance and catch their respective novices by the arm above the elbow, and lift them to their feet. The boys are strictly enjoined to hold their heads down, and their arms close by their sides, and they are marched away by their guardians along the track, followed by the men with the bull-roarers.

When the guardians and novices are out of sight, the covering is removed from the women and children, and they are permitted to rise. On looking all around, and seeing the fire scattered about and the boys gone, they give vent to their feelings in the usual native fashion. The fathers and relatives of the boys, and some other men not immediately connected with the ceremonies, pack up their things and start away after the novices. The women and children, assisted by a number of the men who remain with them, now pack up and remove the camp to a place several miles distant, each tribe selecting its quarters on the side towards its own country. It is imperative, according to ancient tribal custom, to remove the camp to a new site after the boys have been taken away.

In the meantime, the guardians have taken the novices away along the track, their eyes being cast upon the ground at their feet, and on reaching a clear space near the commencement of the *yammunjamun*, they are

made to lie on leaves spread on the ground, face downwards, with their arms close by their sides, their guardians standing near them. After remaining here half an hour, or longer, to allow everyone time to get ready for the expedition into the bush, the novices are helped to their feet and taken along the track, and shown the image of Baiamai and his wife, the *goomee*, the drawings on the ground and on the trees, the eagle-hawk's nest, the tree struck by lightning, &c., as well as certain dramatic representations which need not now be entered upon.

The novices are conducted to the *goonaba* ring, where they are placed standing near the opening in the embankment, their heads being bowed upon their breasts. An old headman is sitting on each of the *wardengahlee*, performing magical feats, such as bringing up through his mouth quartz crystals, pieces of string, or other substances. The guardians now catch hold of the boys' heads and straighten them up, telling them at the same time to raise their eyes, and take particular notice of the old men. After they have looked at these performances for a while, some of the chief men who are standing close by catch hold of the stumps, *wardengahlee*, on which the old men are sitting, and shake them slightly from side to side. While these performances are going on, the other men dance round outside the ring, and in a short time the two old men descend from the stumps and dance round them.

The old men then pull one of the *wardengahlee* out of the ground, and hold it in a horizontal position, and dance round a few times, carrying the stump in their hands, after which they lay it down in the middle of the ring. Another stump is now pulled up, and a similar performance gone through, after which it is placed on the ground beside the first one. A sufficient quantity of wood, which had previously been collected for the purpose, is then laid upon these *wardengahlee*, to which a fire is applied, and some of the men remain in the vicinity till they are completely consumed.

When all these formalities have been carried out, the men and boys start away to the part of the district in which it has been decided to remain whilst carrying out the ceremonies in the bush. All the men who take part in the secret rites are called *Koorinal*, and are painted jet black with powdered charcoal and grease. The novices have to walk along with their eyes cast down, and are not allowed to look at anything except the ground just in front of them, their guardians being beside them. At some convenient place by the way a stoppage is made, and the boys are put standing in a row, with their heads bowed as usual. The men then pass along in front of them, imitating some animal, such as pelicans, kangaroos, or the like, and the novices are permitted to raise their heads and look at them. During the remainder of the day the men engage in hunting, for the purpose of providing food for themselves, as well as for the boys and their guardians. On arriving at the camping place a yard is made for the boys, in which they are placed lying down upon leaves which are strewn thickly upon the ground, and rugs are thrown over them. This yard is semicircular in shape, and is built of forks and saplings, with bushes laid up against them, the convex end of the partial enclosure being towards the men's camp, which is, perhaps, 50 yards away. Across the open end of the yard a few fires are lit to afford warmth to the novices and their guardians when they are occupying it. If the weather is warm, the yard may be dispensed with.



When the game which has been caught during the day is cooked by the men at their own quarters, a fair share is taken by the guardians and given to the novices, who are then permitted to sit up, with their backs towards the men's camp, and must eat their food with the blankets or rugs over their heads, so that they cannot see anything around them. None of the men eat any of the game at their own camp until the novices have been supplied with their allowance.

Close to the men's camp, between it and the yard in which the boys are kept, a space is cleared of all grass and loose rubbish, with a fire lit on one side of it. About dusk, the novices are brought out and placed sitting in a row near this cleared patch, facing the fire, on the other side of which the men are to perform. Presently the men dance along past the fire imitating the gait and actions of one or more of the following animals: bandicoots, grasshoppers, wallabies, turkeys, iguanas, native bears, or any other creature which may have been selected as the subject of the play for the evening. The animal chosen is generally the totem of some of the people present, or perhaps has a legendary connection with their ancestors.

Several days may be spent at this camp, or perhaps a fresh camping place is reached every night. In either case various spectacular displays, representing totems, hunting scenes, and also songs and dances, take place every day, and also in the evening at the camp fires. Different animals are represented each evening, and the singing is varied as much as their scanty repertoire of songs will admit of, the members of each tribe contributing a fair share. The time spent at these camps in the bush generally occupies about a week, being regulated by the weather and other considerations.

About the middle of this period, preparations are made for the extraction of one of the novices' upper incisor teeth. A small patch of ground is cleared of all loose rubbish a short distance from the camp, and the guardians raise the novices to their feet and conduct them hither. In this clear space, which is called the *bunnumbeal*, some men are seated, beating the ground in front of them with pieces of bark, shaped something like a cricket bat, and making a noise. One man then bends down, and places the boy sitting on his knee, another man standing beside him to keep the boy steady. The tooth extractor then steps forward, and inserts his own lower teeth under one of the boy's upper incisors, and gives a strong steady pull for the ostensible purpose of loosening the tooth. A small piece of wood, hardened in the fire, is then used as a chisel, being placed against the tooth, and a smart tap with a mallet on the other end completes the dental operation. The tooth is then taken out of the boy's mouth with the man's fingers, and held up to the public view, which is the signal for a shout from all the men present. The boys have to swallow the blood which flows from the wounded gum. During these proceedings a bull-roarer is sounded in the adjacent bush just out of sight, and at the conclusion the boys are led back to their camp, and put sitting down with their hands over their mouths.

During the seclusion in the bush, many obscene exhibitions are enacted in the presence of the novices, which cannot be described in a work intended for general perusal. At one part of the ceremonies, a man of the local mob is killed by the visiting tribes, and eaten by all present. The novices are also given some of his blood to drink.

When the headmen consider that the novices have gone through a sufficient course of instruction and discipline in the bush, a number of men, called the *Beegay*, who have arrived at the women's camp since the boys were taken away, are despatched to liberate them. The *Beegay* start away from the main camp, and proceed to a waterhole in the bush which has been decided upon by the headmen as the place where the *kooringal* and guardians are to wash the black paint off their bodies. At this water-hole the *Beegay* leave their personal effects in charge of a few of their own men, and go into the bush in search of the *kooringal* and novices.

On the day which has been arranged to meet the *Beegay*, the *Koorringal*, guardians, and boys start out and carry all their things with them, as if shifting camp. When they reach the appointed place, which is in a piece of open country, their swags are laid down and a fire lit, at which the old men remain. The boys are then taken away on the pretence of accompanying the men hunting, and one or more of the *Koorringal* go ahead unseen by the boys, in order to see where the *Beegay* are. The boys, *Wundhamurrin*, are placed sitting in a row on the ground with their heads down and their backs towards the direction from which the *Beegay* are to approach. The *Koorringal* are standing in a row behind the boys. The guardians then tell them to listen, that *Dhurramoolan* is coming to burn them. The *Beegay*, painted with white stripes, are by this time quite near, carrying in the right hand a boomerang and in the left a smoking stick. One of them raises a low, continuous whistle, on hearing which the guardians tell the boys to get up and run back to the place where they left their swags, looking only at the ground in front of them. The boys then run as hard as they can in front with the guardians, until the temporary camp is reached, when the boys fall face downwards on rugs ready spread for them. The whistling of the *Beegay* has been heard close behind them all the way. As soon as the boys lie down, the old men who remained there say, "We will now give you a drink before you are burnt." After this, some of the men will clap their hands, while others take fire-sticks and touch the boys on the legs, to make them believe that *Dhurramoolan* is commencing to burn them. The *Koorringal* say, "Don't be in a hurry to burn the boys! Go away!"

During this time the *Beegay* are renewing the fire-sticks, in order that they may make a good smoke. Then the boys are helped to their feet, and are placed standing in a row, and the *Koorringal* are standing in a semicircle behind them. The boys' faces are now turned towards the *Beegay*, who are swaying their smoky sticks, and the guardians say, "There they are; they have a big fire over there," pointing in a certain direction. The *Beegay* then run up towards the boys, dancing and shouting, and swaying their smoky sticks and boomerangs. The guardians then turn the boys' backs towards the *Beegay*; who come up and pass along the row of boys, each man catching the back hair of each boy in succession, and pulling his head up straight. A *Dhilbai Beegay* would shake the hair of a *Kubbi* or *Murri* boy heartily, but would only lightly shake the back hair of a *Kumbo* or *Ippai*; the *Kupathin* men would show a similar preference for the boys belonging to their own class. This pulling of the back hair is done for the purpose of freeing the novices from the stooping position in which they have had to walk during the time they have been out with the *Koorringal*. After this the *Beegay* retire several yards, shouting as before, the boys remaining with their backs towards them.



The *Beegay* then form into a semicircle, and join the semicircle formed by the *Koorinal*, making a complete ring of men around the boys. Two men now step out into the open space within the circle, and commence swinging bull-roarers (*murrawans*), and the *Koorinal* beat their weapons together and call out, "Don't burn the boys yet." When the men with the bull-roarers get giddy they are replaced by others, who keep the instruments sounding continually. Amidst this tumultuous clamour of human voices, clashing of weapons, and roar of the *murrawans*, the boys' faces are turned round, and they are told to look. The guardians tell them that these instruments represent the voice of Dhurramoolan, and that all the similar sounds which they have yet heard have been made in this way. The men now caution the boys not to reveal what they have seen to the women or the uninitiated, or they will be punished with death, and while doing so hold up tomahawks or spears in a threatening attitude. The guardians now put the full dress of a man on each of the novices, consisting of a belt with four *barrunggals* or aprons, a head-band, and armlets. They are now called *tuggabillas*.

The *Beegay* now start for the water-hole where they left their swags, and the *Koorinal*, guardians, and *tuggabillas* follow them at a distance. A few men who had been left here have made a ring (*buddhamoor*) about 15 or 20 yards in diameter, its boundary being formed by a continuous wood fire. In the middle of this ring of fire are two men swinging a big nulla-nulla in each hand, dancing about, and imitating different animals. The *Beegay* are the first to reach this place, and presently the *Koorinal*, guardians, and neophytes arrive at the other side of the ring. These ceremonies being concluded, the *Beegay* drive the *Koorinal* into the water-hole close by, where they wash the black paint off themselves, the *Beegay* sitting on the bank watching them. After this the *Koorinal* and their contingent camp at the water-hole for the night, but the *Beegay* go away back to the camp of the women, perhaps a mile or two distant.

Early the following morning the men and neophytes have the hair of their heads singed short, and all the hair entirely scorched off the other parts of their bodies. Each is dressed in the full regalia of a man, with eagle-hawk or swan feathers in their hair. A start is then made for the women's camp, and a man goes ahead to report that the novices will shortly arrive.

The women, assisted by the *Beegay*, have in the early morning cut saplings and bushes, and erected a yard called *thurrawonga*, similar in shape to those in the bush, but larger, because intended to accommodate a greater number of men. Its convex end is in the direction from which the boys are expected to approach. In this yard the mothers of the guardians and *Koorinal* have placed their yam-sticks around about 3 feet from the fence, each stick having some article belonging to the owner attached to it, in order that the men may recognise them. Around the outside of the convex end of this yard, logs of wood are laid for the boys to stand on presently.

The men and women belonging to the new camp, who are called collectively *mooeemalla*, muster near the bough yard some time after breakfast, and have bushes cut ready to lay over the women and children. When the messenger arrives, stating that the men and boys are coming in from the bush, the women are placed lying down around the outside of the convex end of the yard, and are covered with rugs and bushes; the mothers of the novices, or those women acting in their stead, being nearest the fence with their heads against the logs before mentioned. As

far as practicable, these women are placed on the side of the yard nearest their respective districts. The other women and the children are lying down a few yards further away from the yard. When all is ready at the bough yard, a shout or signal is given, and the *Koorinal*, guardians, and neophytes approach in single file, a bull-roarer being sounded by one of the *mooeemalla* men somewhere in the adjacent scrub. The *Koorinal* and guardians, carrying nothing in their hands, enter the yard and sit down behind the yam-sticks of their own or tribal mothers. Each boy is taken by the men to the outside of the enclosure, and placed standing beside his mother on the log against which her head is resting. These arrangements are all carried out quickly, so as not to keep the women and children covered up too long. While the women are covered up, some of the men may pick up one or two of the little children, who cannot speak, and put a few marks of paint on them, to make the women believe that Dhurramoolan did it when he brought the novices back. When they are all in their places, the covering is taken off the mothers, who stand up with their heads bowed, and their eyes cast on the ground at their feet; each mother standing in this position, then holds up her arms, and rubs her hands on her son's breast and shoulders, symbolical of rubbing the red paint off him.

At the conclusion of these formalities all the novices run away, not looking behind them as they go, to a camp prepared for them and their guardians a few hundred yards distant. All the other women are uncovered, and advancing, pull down the boughs forming the yard. The men rise to their feet and dance in the middle of the space within the yam-sticks, uttering guttural sounds or grunt-like exclamations. The women then take them to some convenient place close by, where they place them in four groups, the men of each section being together, and light fires to the windward of them, green bushes being thrown on the fires to make a dense smoke.

Next day the novices, carrying a piece of burning bark wrapped in green bushes or grass for the purpose of making a smoke, are brought up near the women's camp. On reaching it they are placed sitting on a log in groups according to the sections to which they belong. The women then light fires on the windward side of them so as to envelop them in a cloud of smoke made by burning green bushes. The Dhilbai women smoke the Dhilbai novices, and the Kupathin women the Kupathin novices. When these observances are concluded, the novices return to the camp to which they were taken the day before. When the boys are being escorted to the women's camp as just stated, an old man swings a small bull-roarer, called *mooniburribean*, in a secluded spot in the rear. When the women hear this sound they consider that a spirit woman is congratulating them upon having their sons admitted to the degree of manhood.

In a few days after the smoke ordeal just described, the strange tribes who have attended the ceremonies make preparations for their departure.\* Before the assemblage breaks up, the headmen of each tribe consult together and select the tribe which will have to prepare the next Bora ground, and entertain the people who will assemble there. Each tribe now takes charge of its own neophytes, and takes them away with it.

\* The whole time occupied by the ceremonies, from the date of the arrival of the first tribe of visitors at the main camp, until all the tribes disperse and start away to their own country, is usually about two or three weeks. The necessity for keeping the time within the shortest possible limits is evident when we bear in mind the extra demand made upon all kinds of game and vegetable food for the support of the great number of strangers present at the ceremonies.



On their arrival in their own country the boys are still kept under restraint, and are not permitted to mix with the women or children. They must also abstain from eating certain kinds of foods enumerated by the headmen, until they are released from these restrictions. When they have completed their term of probation, they are again mustered at a place near the women's camp, and are smoked in the same manner as before. Near this place a net is spread upon the ground, and food provided by the mothers is spread upon it. The neophytes are brought up and partake of the food, after which they are taken into a camp near that of the single men. After a time, which may be of some months' duration, the boys are brought nearer and nearer the men's quarters, until they are eventually allowed to camp amongst the other young men of the tribe. It is necessary that each neophyte must participate in one or more gatherings before he is fully qualified to take his place as a man of the tribe. The reason of this is evident when it is remembered that at the first Bora which a novice attends, he is prevented from seeing the whole of the ceremonial in consequence of having to keep his eyes cast down during some of the most important parts of it. In some cases a boy is not more than 12 or 14 years of age when he is first initiated, which is an additional ground for delay in admitting him to the full status of manhood.

The ceremonies dealt with in this article have been abridged from my descriptions of the Bora of the Kamilaroi tribes published in the journals of the Royal Society of New South Wales, the Anthropological Institute of Great Britain, and the Royal Society of Victoria. I have also contributed papers describing the Bunan and Keeparra ceremonies, the former relating to the Shoalhaven tribes, and the latter to the Manning River tribes. The Burbung of the Wiradjuri community has likewise been dealt with. In the several articles published in different journals I have described the initiation ceremonies of all the native tribes of New South Wales.

Although the details of these inaugural rites vary somewhat in different districts, the fundamental principles are substantially the same in them all throughout this State. If the perusal of these pages should awaken the interest of any gentlemen residing in the back country of New South Wales or the southern portion of Queensland, who may have opportunities of observing similar rites among the tribes in their districts, I shall be deeply indebted to them if they will take the trouble to write and tell me all the particulars they may be enabled to elicit, or which may be already within their knowledge. The names of any gentlemen who may furnish information in this way, will be suitably recorded in an article now in preparation on the subject. Although such gentlemen may not have had previous experience in collecting particulars of this character, yet, if they will communicate with me, I will gladly forward them such hints and advice as may assist them in doing good work in this direction. Particulars regarding the divisions and totems of any tribe will be equally appreciated. Letters addressed to me, Parramatta, New South Wales, will receive immediate attention.

It should be explained that during recent years, when the blacks can obtain food from the white people, a Bora lasts much longer than in the old, wild times, when a native's life was one long struggle for subsistence. For example, the Bora which took place at Gundabloui, in 1894, lasted about three months, because the Aborigines' Protection Board supplied rations to the aged blacks and the children, besides which the manager of Gundabloui station, close by, gave them an allowance of beef all

the time.\* The natives who held the Bora at Tallwood,† in 1895, were likewise supplied with food by the white residents of the district, and consequently the meeting was prolonged for some months. I myself contributed liberally to the commissariat of the blacks who came to the Tallwood Bora. A severe drought was prevailing throughout the district at the time, and some of the old natives confided to me that they would make the Bora last as long as they could get provisions from the Europeans.

### 3. Aboriginal Weapons.

Between the years 1898 and 1900 I introduced my young friend Mr. W. J. Enright to the "head men" of the remnant of the Kutthung tribe, at Port Stephens. With some help from me he published an account of their initiation ceremonies, weapons, &c., in the "Journal of the Royal Society of New South Wales," Vol. xxxiii, pp. 115-124, and Vol. xxxiv, pp. 103-118. With the permission of Mr. Enright, I am republishing two plates, and a description of the weapons, &c., used by the Kutthung and adjacent tribes.

#### PLATE 3.

Figs. 1, 2, 3, 4, 5, and 6 are boomerangs of the returning variety. They are about 18 inches in length from point to point and have a maximum width of 2 inches.

Fig. 7 is a fishing spear composed of a shaft made from the stem of the grass-tree, 7 ft. 6 in. in length, and four pieces of hardwood 25 inches in length lashed together, but with the points separated by means of pieces of wood thrust in between them, and fastened into the shaft by means of gum and twine. This spear is used in catching the large fish. Going into the water as far as he can, to use the spear with effect, the native stands like a statue holding the spear obliquely in poised hands ready to strike his prey as it passes. Standing motionless, he is soon surrounded by fish, and the first that passes his feet is pierced by an accurate and powerful thrust. Sometimes they make use of a boat (the bark canoe is never used nowadays), from which they spear the fish.

Fig. 8 is the wommera or throwing stick used for the purpose of throwing spears. It is made of two pieces of wood, the larger of which is 32 inches in length, with a breadth of 3 inches at the end which is held in the hand and tapering to a point at the other end, whereon is lashed a sharpened piece of wood, 3½ inches in length, projecting at a slight angle. The point of this smaller piece of wood is inserted into the end of the shaft of the spear, which is held between the thumb and forefinger of the thrower, the broad flat end of the wommera all the while resting in the palm of the hand.

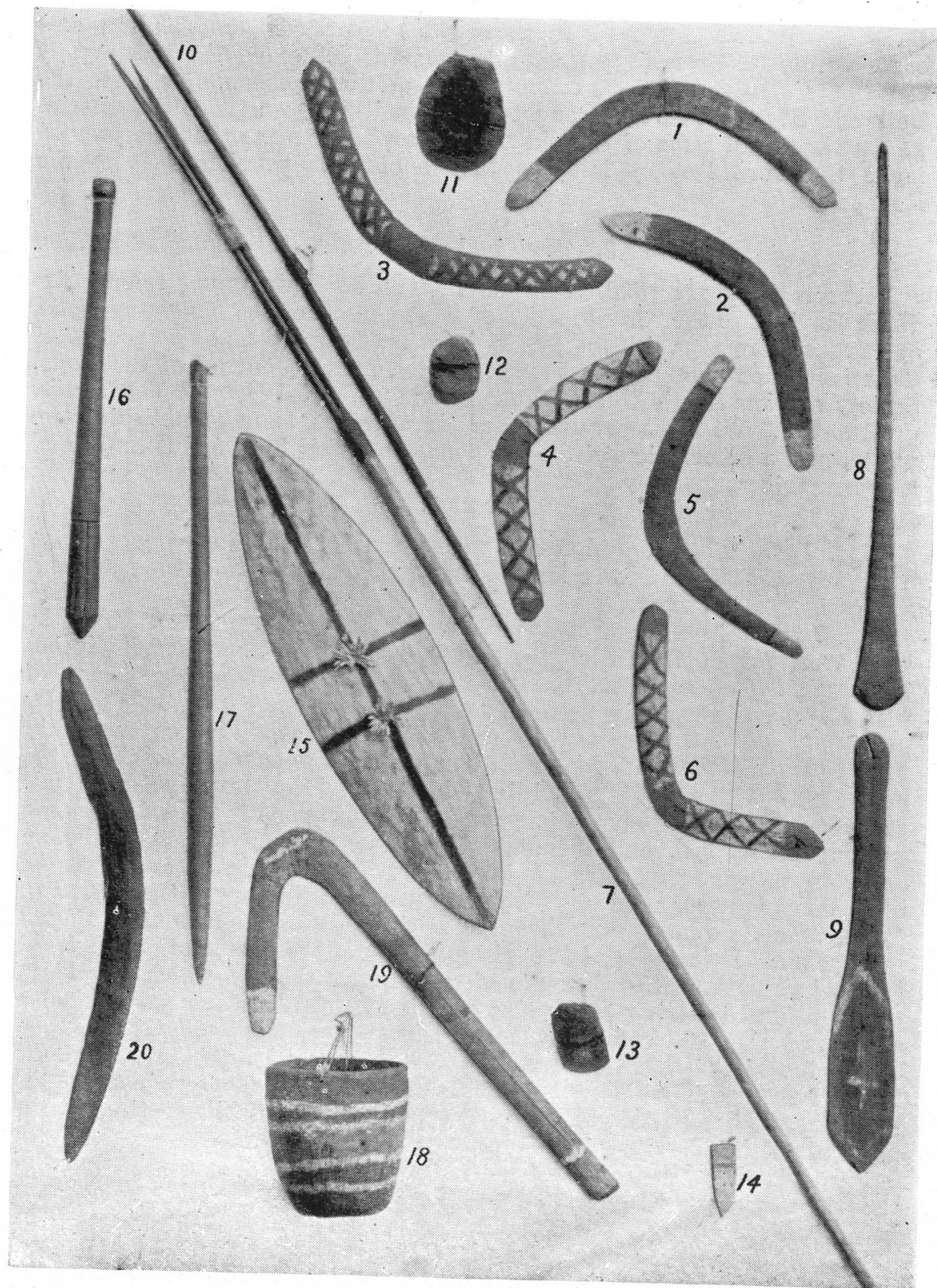
Fig. 9 is the *bar'-ro-wa* or large bull-roarer used in the closing part of the Keeparra ceremony. It is 24 inches in length with a maximum breadth of 3½ inches.

Fig. 10 is a spear composed of three pieces, a sharpened hardwood point 24 inches in length, thrust into thin stem of grass-tree about 34 inches in length, and this in turn is fastened into a shaft of like material about 6 ft. 4 in. in length. It is thrown at game or other objects by means of the wommera previously described.

Figs. 11 and 12 are axe heads of basaltic rock.

\* Journ. Anthropol. Inst., London, xxiv, p. 413.  
† Proc. Roy. Soc. Victoria, ix, New Series, p. 137





3. Aboriginal Weapons.

Fig. 13 is also of basaltic rock, but, unlike the two former implements, appears to have been used without the usual wooden handle, and is probably a chisel.

Fig. 14 is a whetstone used for sharpening the points of the shell fish-hooks, and is of hard eruptive rock. It is  $4\frac{1}{2}$  inches in length,  $1\frac{3}{4}$  inches in breadth at one end, and tapers at the other end to a point, which has unfortunately been broken off the specimen in my possession. It has a uniform thickness of  $\frac{5}{8}$  of an inch.

Fig. 15 represents a shield of mangrove wood. It is 30 inches in length, with a breadth of 9 inches, and is used for warding-off spears. The handle, which is a green twig of the mangrove, is fastened by boring two holes 3 inches apart in the centre of the shield, and inserting into each hole an end of the twig, the fibres of which are then separated on the face of the shield. This instrument is covered with pipe-clay and adorned with three red stripes.

Figs. 16 and 17 are waddies, used not only as clubs, but for throwing at small animals. The former, called *boon'-dhee*, is 26 inches in length, and made of the wood of the ironbark. The latter, called *goothera*, is made of the wood of the myrtle, and is 35 inches in length.

Fig. 18 is a koolamon, made of mangrove wood. It is 7 inches in diameter, with the same depth internally, and is used for carrying water or holding liquid of any kind.

Fig. 19 is the *koo-pin*, and is made of the wood of the black oak. It is used for warding-off spears, and also to hinder the flight of an opponent.

Fig. 20 is a fighting boomerang, made of myall wood, and, I believe, is from the north-western part of New South Wales.

## PLATE 4.

Fig. 1.—A boomerang, *tū-ree*, of the type that does not return when thrown.

Figs. 2, 3, 4, 5, and 6.—Boomerangs, *bār-rā-kun*, of the kind which can be made return when thrown.

Fig. 7.—Yamstick, *kun'-nī*, used by the women in digging for roots, and is also their favourite weapon.

Fig. 8.—Shield, *ben'dool-gun*, used in defence against the blows of a club.

Fig. 9.—A waddy, called *bin'-nā-pin* by the Kutthung.

Figs. 10, 11, and 12.—Stone axe heads.

Figs. 13 and 14.—Stone axes, with heads of a dark eruptive rock and handles made of a piece of vine, which is doubled around the head and the two portions are then fastened together with bark, and the head made more secure with wax or gum.

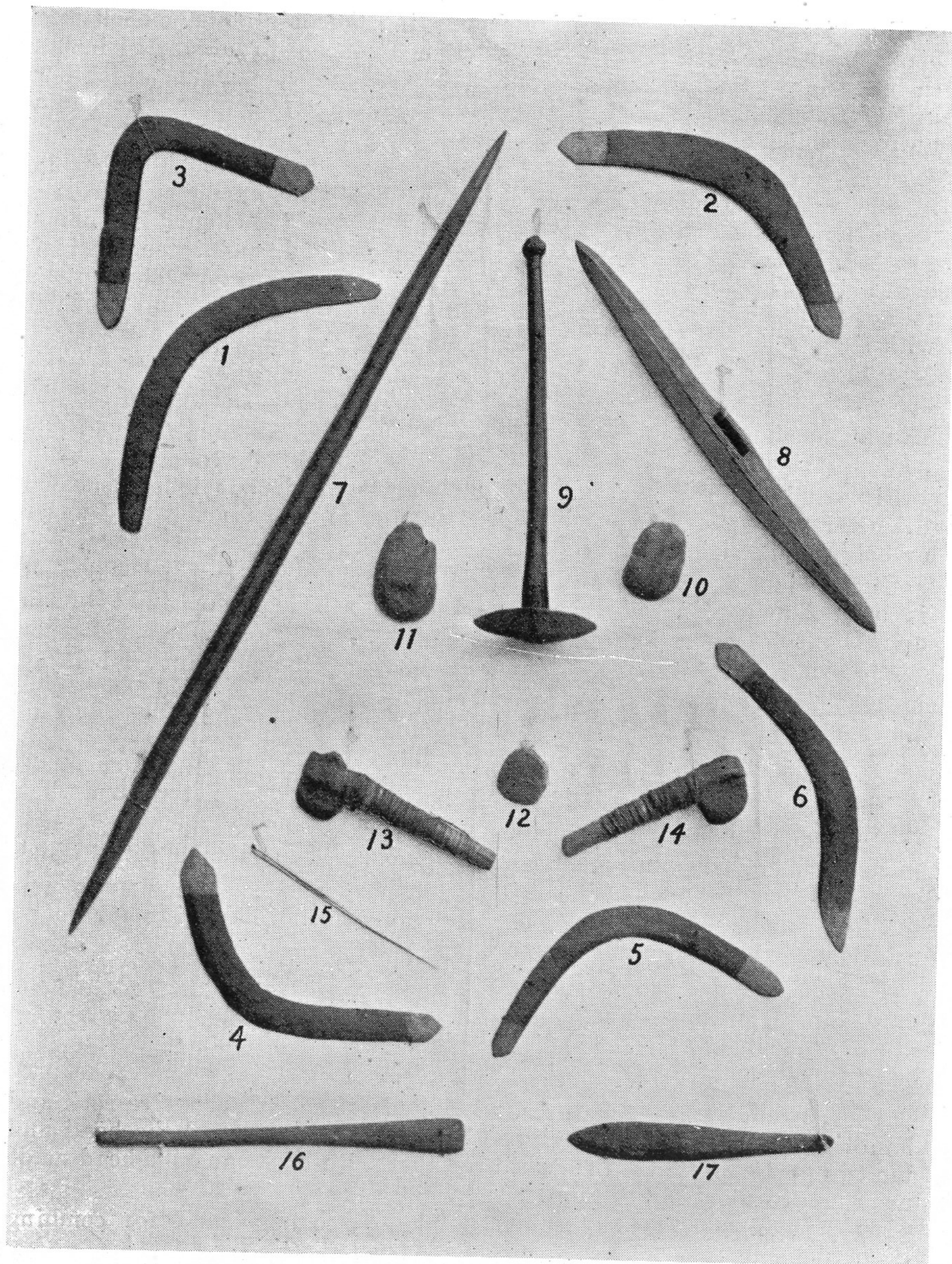
Fig. 15.—*Koó-ye-roó*, a sharpened kangaroo bone used for combing the hair.

Fig. 16.—A waddy of one of the Hunter River (New South Wales) tribes.

Fig. 17.—The *goon-an-dhak'ee-a*, a bull-roarer used at the initiation ceremonies.

The other articles manufactured by the aborigines are the canoe, fishing-net, dilly bag, stone knife, belt of spun opossum hair, barbed spear of hardwood, fish-hook of shell, and a small bag used for carrying the pieces of crystal bestowed on the young men when they have been initiated at the Keepara.





4. Aboriginal Weapons.

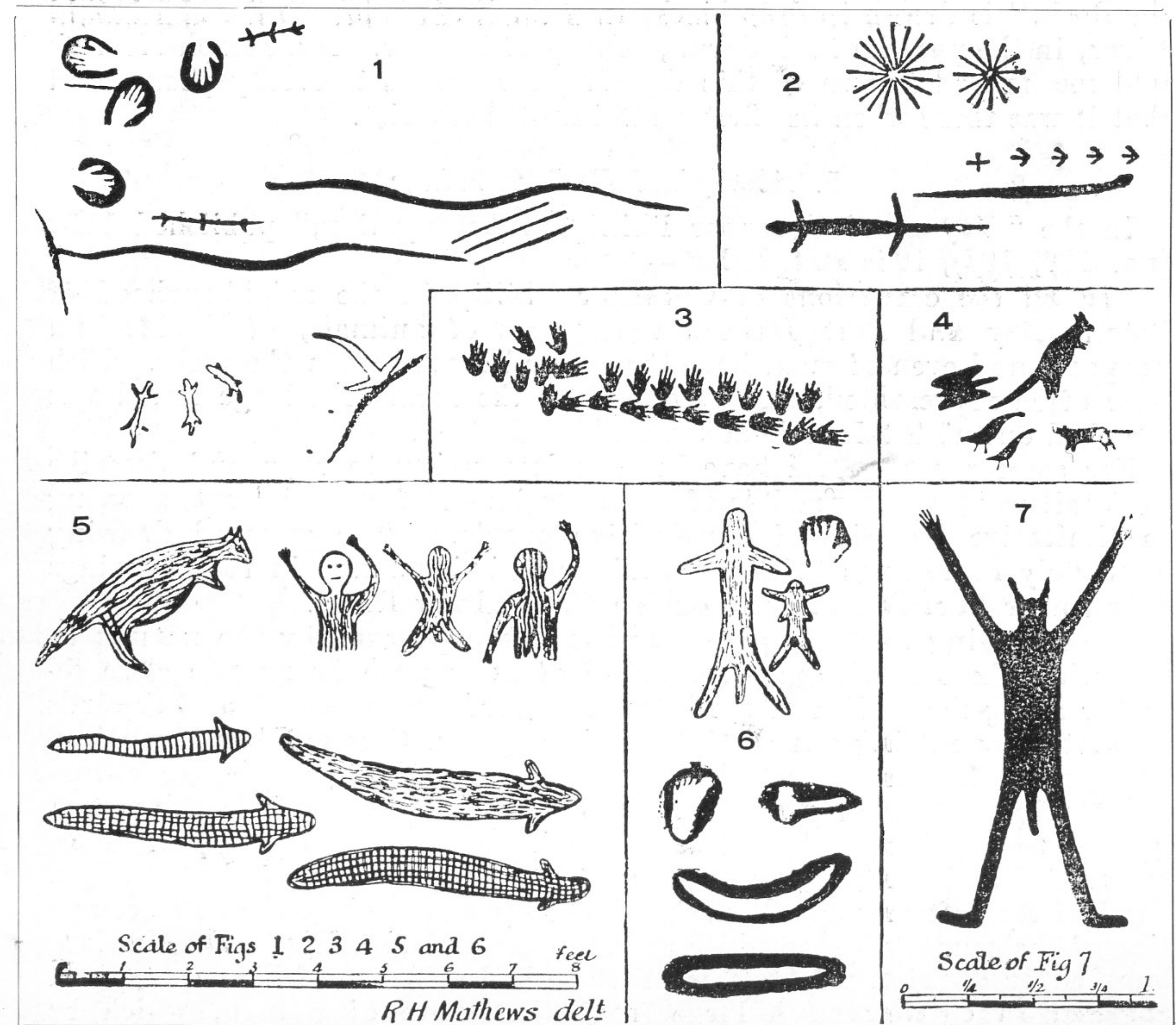
## 4. Aboriginal Rock Paintings.

So far as I am aware, the first account of the discovery of rock paintings in any part of this continent is contained in Capt. M. Flinders' "Voyage to Terra Australis," vol. ii, pp. 188, 189. On the walls of a cave at Chasm Island, on the western side of the Gulf of Carpentaria, Flinders states that on the 14th January, 1803, he "found rude drawings

made with charcoal and something like red paint, upon the white ground of the rock. They represented porpoises, turtles, kangaroos, and the human hand." There were also "the representation of a kangaroo with a file of thirty-two persons following after it. The third person of the band was twice the height of the others, and held in his hand something resembling the waddy, or wooden sword, of the natives of Port Jackson."

Aboriginal rock-paintings are executed in three different ways, which may be called the *stencil*, the *impression*, and the *outline* methods respectively. In the *stencil* method, the palm of the hand was placed firmly on the rock, with the fingers and thumb spread out, and the required colour—generally pipe-clay, red ochre, or charcoal—was squirted or blown over it out of the mouth of the operator. This manner of drawing was also adopted in many instances in representing implements of the chase, such as boomerangs, tomahawks, waddies, &c. In the *impression* method, the colour to be used was mixed with a liquid in a native vessel, into which the palm of the hand was lightly dipped and then pressed against the surface of the rock. On the removal of the hand, the coloured imprint was left clearly defined. Objects to which neither of the preceding methods would be applicable were drawn in *outline*, in the required colours. In some cases the objects were merely outlined, in other cases they were coloured all over with a wash, whilst in others, the space within the margin of the outlines was shaded by strokes of colour.

In the annexed plate, Fig. 1 represents four hands stencilled in red, two



5. Aboriginal Rock Paintings.



snakes, three lizards, and part of an iguana, the remainder of the latter being supposed to have disappeared into a crack in the rock. The head of one of the snakes is hidden in a crack in a similar manner. The rest of the figures comprise two six-legged objects which I cannot identify, and four straight lines—three being in one group, and another close to one of the hands. Fig. 2, which is in the same cave as Fig. 1, shows two drawings which may have been intended to represent the sun, an iguana, a death-adder, four footmarks of birds, and a small cross. Fig. 3 represents a group of twenty-five impressed hands. All the paintings in Figs. 1, 2, and 3 are done in red colour, on a large rock about three-quarters of a mile southerly from portion No. 4, parish of Wilpinjong, county of Phillip.

Fig. 4 delineates three birds, one of which is on the wing; a kangaroo, and a dingo or native cat, all drawn in black colour, in a cave near portion No. 33, parish of Wareng, county of Hunter. Fig. 5 contains three human figures, a kangaroo, and four objects resembling eels. They are all in black colour, and are situated near portion No. 16, parish of Macdonald, county of Hunter. Fig. 6 represents a man and a woman apparently dancing a corroboree, and is drawn in black, red, and white colours, in a cave near portion No. 42, parish of Tollagong, county of Hunter. The other drawings represent a human foot, a hand, a native tomahawk, a boomerang, and a waddy, all done in stencil, in white colour. Fig. 7, which is locally known among the white settlers as the "Devil in the Rock," is drawn in deep black, in a small cave close to the Macdonald River, in the parish of Kindarun, county of Hunter. Mr. Joseph Merriek told me he had known of this drawing for the past seventy years, and that it was there when he first came into the district.

#### 5. Aboriginal Rock Carvings.

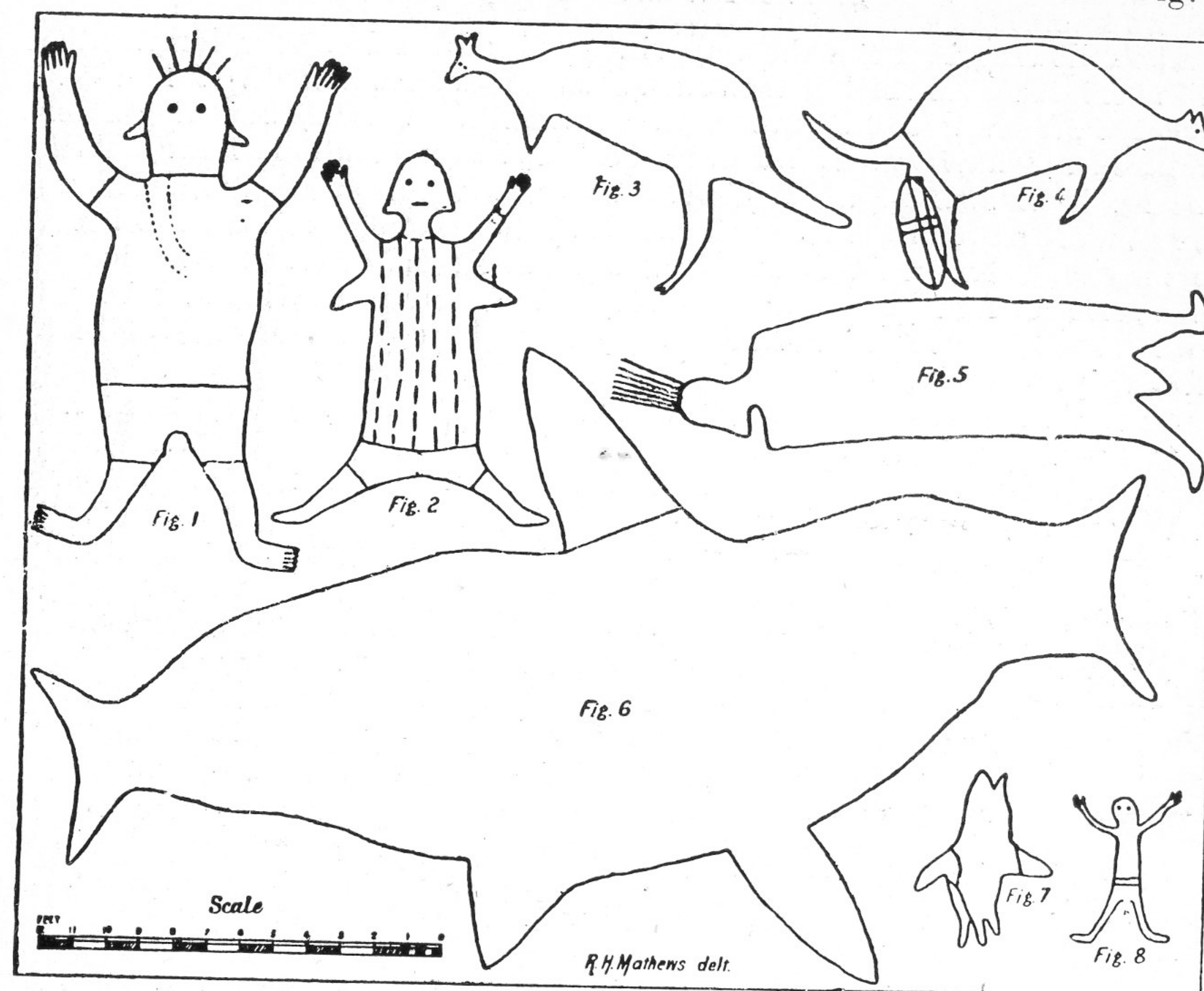
In the "Voyage of Governor Phillip to Botany Bay," published 1789 (pp. 106, 107), it is stated that—

"In all the excursions of Governor Phillip in the neighbourhood of Botany Bay and Port Jackson the figures of animals, of shields and weapons, and even of men, have been found carved upon the rocks. Fish were often represented, and in one place the form of a large lizard was sketched out with tolerable accuracy."

For some years past I have been endeavouring to copy and describe in detail as many as possible of these specimens of pictorial art, showing the imitative faculties of a primitive people. The annexed drawing accurately reproduces (with some minor omissions) certain rock carvings found near Port Jackson and on the Hawkesbury River.

The following method appears to have been pursued by the natives in executing these carvings:—A number of holes were first made close together along the outline of the intended figure, and these were afterwards connected by cutting out the intervening spaces, thus making a continuous groove of the required width and depth. Judging by the punctured indentations, the aboriginal artist had a hard stone or pebble chipped or ground to a point, and used as a chisel. There does not appear to be reason for assigning a remote date of execution to any of the carvings. Some of the best preserved have no doubt been done since the first occupation of the country by the white race. I met a blackfellow in the Hawkesbury River district, who told me that he had seen one of his countrymen engaged in cutting on a large rock the figure of a man, which he subsequently pointed out to me.

In the annexed plate Fig. 1 represents a man 15 ft. 2 in. tall. Fig. 2



6. Aboriginal Rock Carvings.

is a woman 11 ft. 3 in. tall, with an abnormally long body and short legs like Fig. 1. Figs. 3 and 4 are tolerable representations of kangaroos—the latter having a shield attached to his hind leg. Fig. 5 represents the incomplete drawing of a man 16 feet tall. Fig. 6 is an immense fish 33 ft. 10 in. long, and 21 ft. 9 in. from tip to tip of the opposite fins. Fig. 7 is a peculiar drawing of a fish, and Fig. 8 is a man somewhat less than life-size. Remembering that the aboriginal sculptors had only a piece of sharp stone with which to carve these colossal figures on the hard rock, it can be readily understood that the task necessitated immense labour, and occupied a considerable time.

The large rock on which Fig. 1 is carved is situated about half a mile on the eastern side of the main road from Wiseman's Ferry towards Parramatta, and about 4 miles from the former place, in the parish of Frederick. Figs. 2, 4, 5, and 8 are all on one rock on a bridle-path or trail leading from Mangrove Creek to Hawkesbury River, in the parish of Spencer. Fig. 3 is cut on a flat rock on the old road from Sydney to Peat's Ferry, about 4 miles from the railway station at Hawkesbury River, in the parish of Cowan. Fig. 6 is found on a large rock on the western side of Bantry Bay, in the parish of Manly Cove. Fig. 7 is carved on a mass of rock a few chains on the eastern side of the Peat's Ferry road, about half or three-quarters of a mile northerly from Fig. 3.



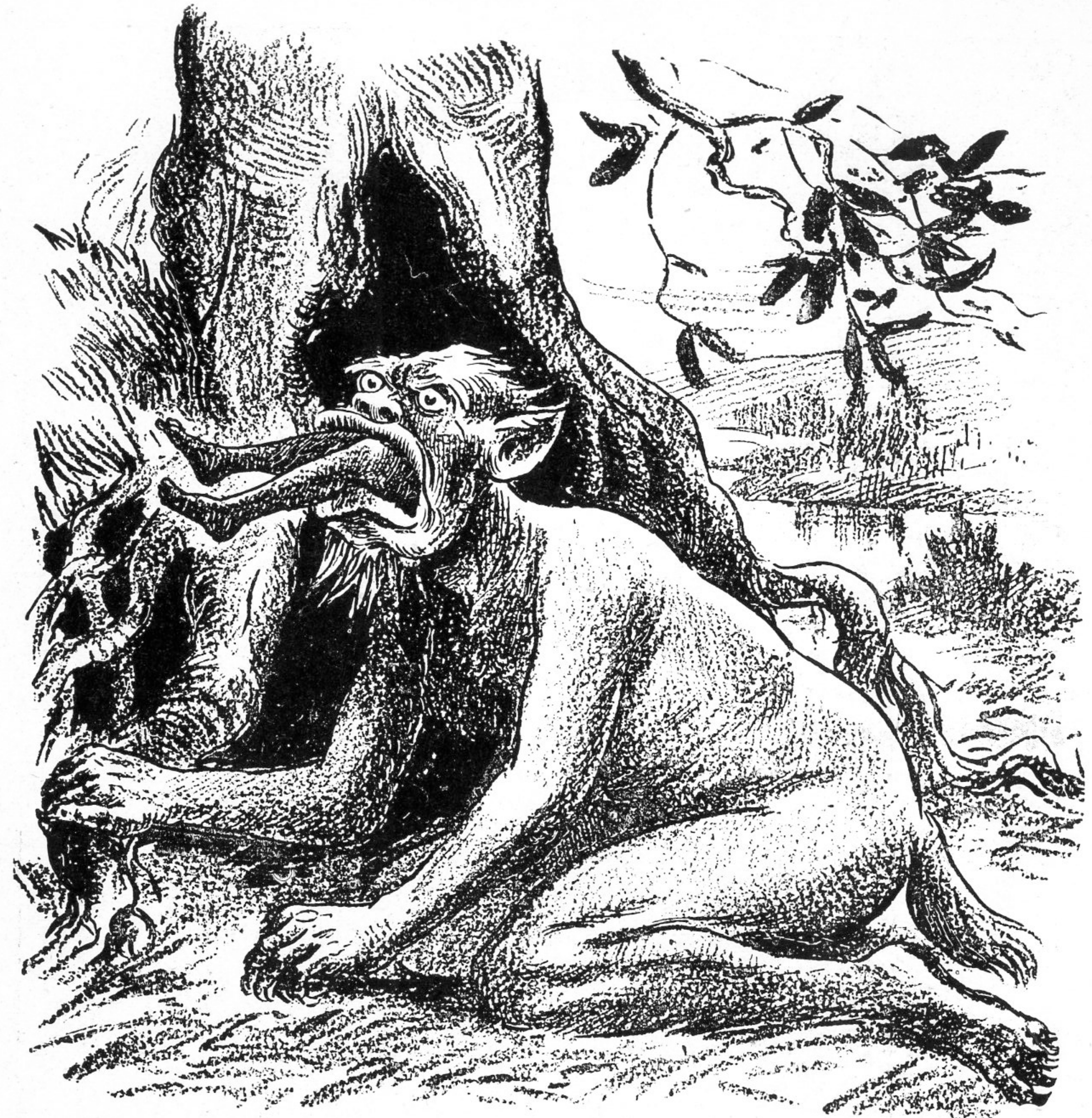
### 6. The Yaroma—A Legend.

The following is one of the many interesting legends current among the old aborigines inhabiting the south-east coast of New South Wales :—

The Yaroma is a creature closely resembling a man, but of greater stature, and having hair all over the body. Its mouth is large, which enables it to swallow a blackfellow whole, without mastication. There are generally two of these monsters together, and they stand back to back, so that they can see in every direction. Their method of locomotion is by a series of long jumps, and at every jump their feet strike the ground with a loud sudden noise, like the report of a gun or the cracking of a stockwhip.

Yaromas have large, long feet, of a different shape to the feet of a human being. When one of these monsters is heard in the vicinity of a native camp during the evening, the people keep silent and rub their abdomens with their hands, and puff or spit in his direction. Some of the headmen or doctors shout out the name of some locality a long way off, and the Yaroma is supposed to depart to that place. If he cannot be dispersed by this means, the men take sticks which have been lighted in the fire—a stick in each hand—and strike them together to throw out sparks. This usually causes the Yaroma to disappear into the ground, making a flash of light as he does so. If a man be pursued by a Yaroma his only means of escape is to jump into a waterhole and swim about, because these creatures cannot wet their feet. They have long teeth, which they sharpen on rocks in the high ranges; and some of the old men aver that they know of rocks where there still remain marks of this tooth-grinding.

On one occasion a blackfellow went under a large fig-tree to pick up ripe figs which had fallen to the ground, when a Yaroma, who was hidden in a hollow place in the base of the tree, rushed out, and catching hold of the man swallowed him head first. It happened that the man was of unusual length, measuring more than a foot taller than the majority of his countrymen. Owing to this circumstance, the Yaroma was not able to gulp him farther than the calves of his legs, leaving his feet protruding from the monster's mouth, thus keeping it open and allowing the air to descend to the man's nostrils, which saved him from suffocation. The Yaroma soon began to feel a nausea similar to what occurs when a piece of fishbone or other substance gets stuck in one's throat. He went to the bank of the river close by, and took a drink of water to moisten his throat, thinking by this means to suck into his stomach the remainder of his prey, and complete his repast. This was all to no purpose, however, for, becoming sick, the Yaroma vomited the man out on the dry land, just as the whale got rid of Jonah. He was still alive, but feigned to be dead, in order that he might perhaps have a chance of escape. The Yaroma then started away to bring his mates to assist him to carry the dead man to their camp. He wished, however, to make quite sure that the man was dead before he left him, and after going but a short distance he jumped back suddenly; but the man lay quite still. The Yaroma got a piece of grass and tickled the man's feet, and then his nose; but he did not move a muscle. The Yaroma, thinking he was certainly dead, again started away for help, and when he got a good distance off, the man, seeing his opportunity, got up and ran with all his speed into the water close by, and swam to the opposite shore, and so escaped.



7. A Yaroma rushed out and swallowed the Man.

### 7. Pirrimbir, or Avenging Expedition.

Among the aborigines of the south-eastern districts of New South Wales *Pirrimbir* is the name of a warlike party organised for the purpose of avenging the death of a relative or fellow tribesman. When a party of this kind go forth on their mission, they mark a tree at each place where they camp for the night. All the men in the party join in marking such a tree, and thus incur equal responsibility respecting the life they intend to take.

The tree shown in the illustration was marked by a *Pirrimbir* expedition in the Thoorga territory many years ago. It was first pointed out to me by two old aborigines in 1899, who, at the same time, gave me all the details and the songs of the *Pirrimbir*, which I recorded in 1904.

It is a tall, green tree of the grey box species, measuring some 10 feet in girth at about a foot from the ground. It stands on hard, stony ground, and probably the annual growth has been slow, which accounts for the good preservation of the marks.



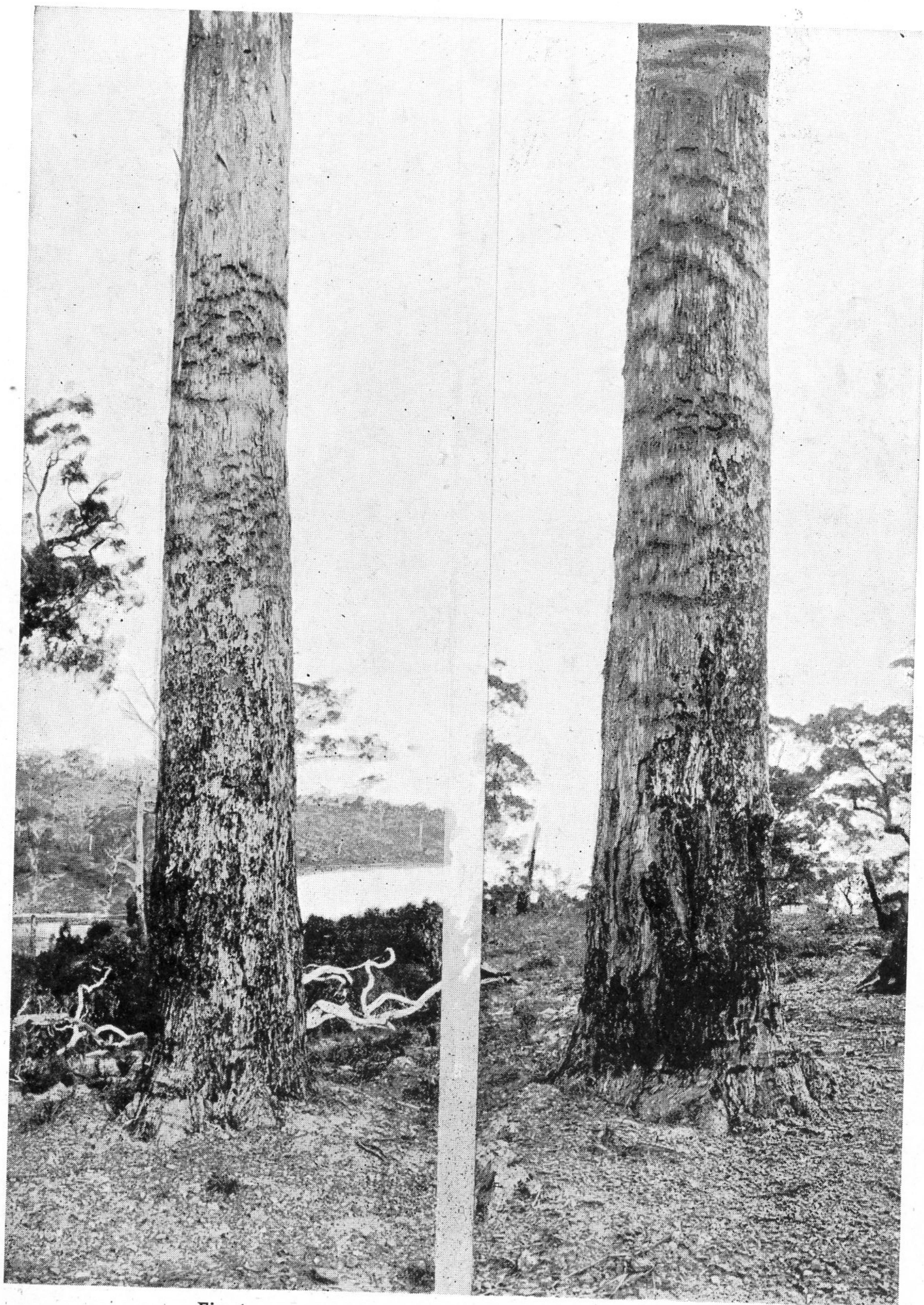


Fig. 1.

Fig. 2.

## 8. Photographs of a tree marked by Pirrimbir Warriors.

The tree is situated in the parish of Noorooma, county of Dampier, and is about 300 or 400 yards westerly from the south-west corner of portion No. 3&1 of 40 acres in the said parish.

Fig. 1 shows the northern side of the tree, whilst Fig. 2 shows the south-western side, because on these aspects of the tree the marking appears more clearly than on the remaining sides. The same kind of marking is continued all round the bole, and extends up the tree to a height of about 14 feet.

In Fig. 2, the camera was placed nearer the tree than in Fig. 1, to give a larger picture, on account of this being the shady side of the tree. This is the only illustration of a Pirrimbir tree which has ever been published.

When the Pirrimbir party get near the camp in which their intended victim is residing, a couple of spies go on ahead to locate his sleeping-place, and return to their comrades with all the necessary particulars. At the first sign of the dawn next morning, they surround the enemy's quarters, and call upon him to defend himself. He clutches his best shield and endeavours to parry the numerous spears which are cast at him. Presently one of the missiles strikes him in a vital part, and he falls to the ground, whereupon some of the assailants rush up and complete the tragedy. Portions of skin and flesh are cut from the dead man's body by the avengers, who then start away and return to their own tribe. For full details of this native custom, see "Journal of the Royal Society of New South Wales," vol. xxxviii, pp. 239-252.

## 8. Bull-roarers used by the Aborigines.

Owing to the prominent use assigned to the bull-roarer in the initiation ceremonies of the Kamilaroi and other tribes, a short description of the various forms of this instrument will be of interest. The earliest mention of the bull-roarer and its secret character among Australian tribes is found in Teichelmann and Schürmann's "Grammar of the Language of the Natives of Adelaide," published in 1840. In that work, at page 7, they spoke of the *kadnomarngutta*, "a thin, oval piece of wood, about 5 inches long and an inch and a half wide, tied to a string, by which the natives swing it rapidly round, and thus cause a humming noise. Females and children are not allowed to see it, much less to use it." The same authors, at pages 55 and 73 of the work quoted, refer to the *wimmarri*, a much larger bull-roarer, the same in shape as the *kadnomarngutta*. It was invoked in the incantations of the natives whilst out hunting. The name of the instrument was also repeated while the bodies of the youths were being scarred, it being believed that this would soothe the pain.

Mr. Schürmann, a few years later, in 1846, reported the use of the bull-roarer at the initiation ceremonies of the Port Lincoln tribes in South Australia. He described both the larger and the smaller sorts of instrument, *witarna* and *pullakalli*, corresponding to the *murrawan* and *mooniburribean* of the Kamilaroi, shown on the accompanying plate. The novitiates were told not to betray what they had seen and heard on such occasions, or they would be speared, thrown in the fire, or have other dreadful things done to them.\* Mr. E. J. Eyre was the first to publish drawings of the bull-roarer.† In Plate IV of his work he gives illustrations of three of these instruments, called *moor-y-um-karr*. Fig. 6 is plain; Fig. 7 has five wavy lines running parallel with the length; Fig. 8 has some wavy lines and irregular marks.

\* Reprinted in "Native Tribes of South Australia," pp. 216 and 226-228.

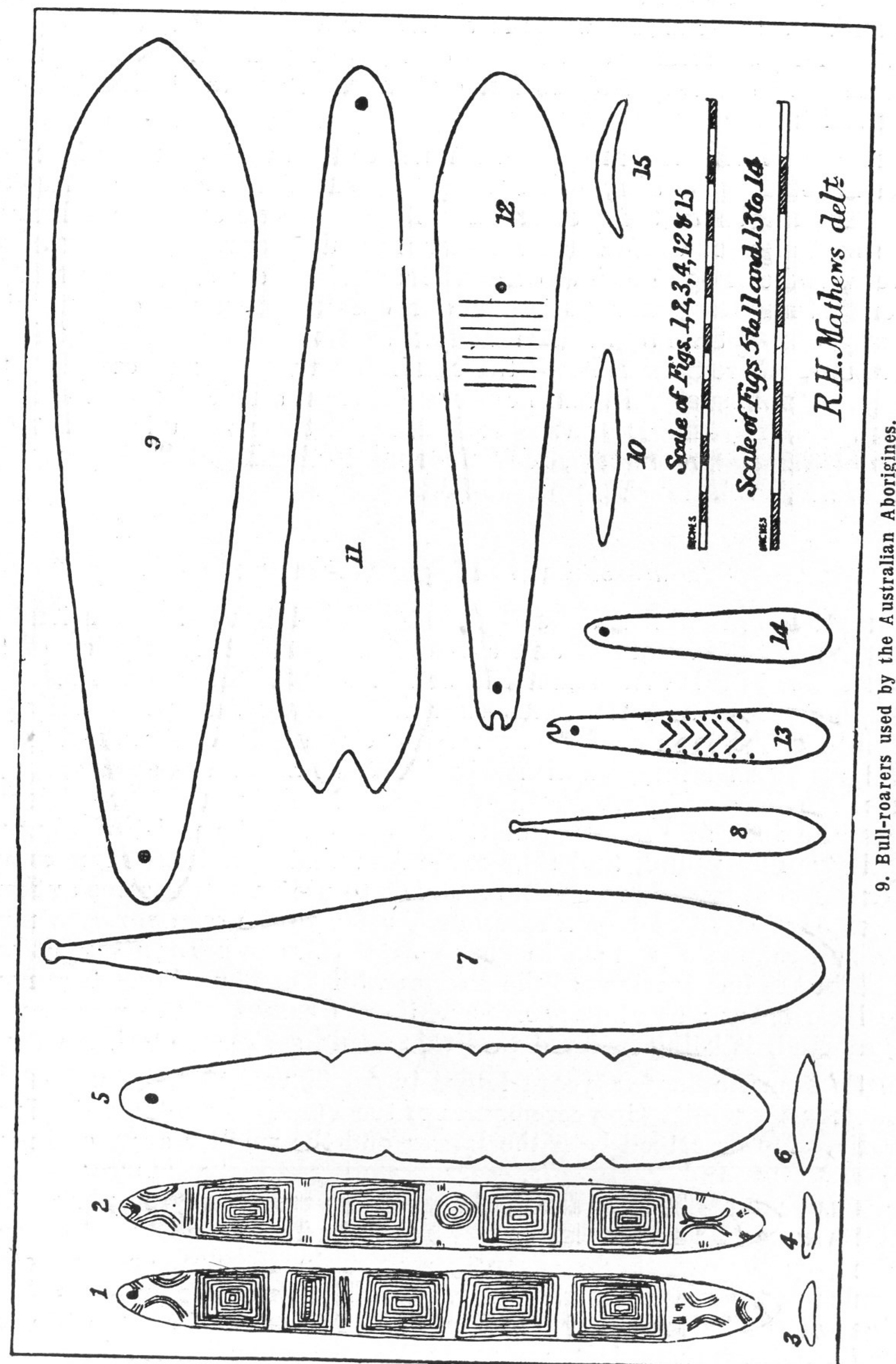
† Journs. Expeds. Discov. Cent. Aust. (London, 1845), II, pp. 310, 316, and 511, Plate IV.

62-7-121 Wallaga Lake Se tree



For the names of several other writers who reported the use of the bull-roarer more than fifty years ago, see my article on this subject in the "Journal of the Anthropological Institute," vol. xxvii, pp. 52-60.

The bull-roarers illustrated in the accompanying plate form the most



9. Bull-roarers used by the Australian Aborigines.

representative collection with which I am acquainted. The figures are drawn simply as diagrams, showing the shape and outline of the several instruments, without any shading to produce perspective. It is thought that accurate drawings of the various instruments will enable the student

to understand more thoroughly the copious written details of description. Those who wish to become more fully acquainted with all the uses to which the bull-roarer is applied by the Australian tribes can obtain all the necessary information by a perusal of the several papers on Initiation Ceremonies contributed by me to various journals.

Figs. 1, 2, 3, and 4.—These drawings show the two sides and cross-sections of a bull-roarer used by the aborigines of the Oscar Ranges, Kimberley district of West Australia, courteously lent to me by Mr. W. W. Froggatt. The length of the instrument is  $22\frac{1}{2}$  inches, its breadth at the widest place  $2\frac{1}{2}$  inches, and its thickness  $\frac{7}{16}$  of an inch. There is a hole in one end for the string used in swinging it. One side is convex, and the other flat, a peculiarity I have before observed in bull-roarers from West Australia. Fig. 1 represents the drawings on the convex face; Fig. 2 those on the flat face; Figs. 3 and 4 being cross-sections at the widest part. I was unable to ascertain the name of the wood out of which it is made.

Several bull-roarers which I have seen from the Kimberley district were flat on one side, which was more or less elaborately carved into rectangles, ovals, and various patterns by means of straight or zig-zag lines, both with the grain of the wood and across it; the other side was slightly rounded, and had no carvings upon it.

Figs. 5 and 6.—The bull-roarer, *murrawan*, here shown was given to me by a Kamilaroi tribe on the Weir River, Queensland, and was used in mustering the tribes to attend a Bora at Tallwood, at which I was present. It is nearly  $11\frac{1}{2}$  inches long,  $2\frac{1}{8}$  inches wide, and  $\frac{1}{16}$  of an inch thick. It is made of mulga wood, and has six notches on each edge, not quite opposite each other, with a hole in one end for the insertion of the string. The instruments used at the Bora ring in the principal parts of the ceremonies were much larger than this one, being about 18 or 20 inches long, and made of belar wood.

A small bull-roarer, called *mooniburribean*, similar in shape to Fig. 14, is also used at the Bora of the Kamilaroi tribes.

Fig. 7.—This drawing represents the bull-roarers, *mudthega*, used by the Wiradthuri tribes on the Macquarie, Bogan, and other rivers. It was given to me by the headman of a tribe on the former river, and was used in the Burbung ceremonies of his tribe. It is made of brigalow wood, and is nearly  $13\frac{3}{4}$  inches long,  $2\frac{1}{2}$  inches wide, and  $\frac{7}{16}$  of an inch thick. A cross-section through the widest part would be similar to Fig. 6, but correspondingly larger. A string is fastened over the small knob at the tapering end, in the same way that a whip is fastened to its handle.

Fig. 8 is the small bull-roarer or *moonibear* used by the same tribes as in the case of Fig. 7. It is made of sandal-wood, its length being  $5\frac{1}{2}$  inches, its breadth  $\frac{4}{8}$  of an inch, and its greatest thickness  $\frac{3}{16}$  of an inch. The string and handle attached thereto, when given to me by the natives, were of the following measurements: the handle, made of mungal wood, 2 ft. 7 in. long, and the string attached to it 2 ft. 8 in. in length. The *moonibear* is sounded at the Burbung ground during the continuance of the ceremonies of initiation.

The form of the bull-roarer used in Figs. 7 and 8, representing the large and small kind, with the manner in which the string is attached, is in use over a large area, extending from the Macquarie to the Culgoa Rivers, and probably further north. Among the tribes on the Culgoa,



the larger instrument is called *wuddoolnurren*, and the smaller *ghidjookumbul*, and both are used in exactly the same way as the *mudthega* and *moonibear* herein described.

Fig. 9.—This drawing represents the *goonandhakeea* of the tribes scattered over the country between the Hunter and Macleay Rivers in New South Wales. It is used at the Keeparra and Dhalgai ceremonies in the manner described in my paper on the "Keeparra Ceremony of Initiation." The instrument illustrated is made of ironbark, and is  $15\frac{1}{2}$  inches in length, and  $3\frac{7}{8}$  inches broad. It is  $\frac{7}{8}$  of an inch through the thickest part, a cross-section of which is given in Fig. 10. There is a hole at the narrow end of the instrument for the insertion of the string.

Fig. 11 shows the *mooroonga* of the tribes occupying the Shoalhaven River and south-east coast of New South Wales, and is used at their initiation ceremonies in the way described in my paper on the Bunan. The drawing shows a *mooroonga*, made of stringybark wood, 13 inches long,  $2\frac{7}{8}$  inches wide, and  $\frac{5}{8}$  of an inch thick. In the smaller end is a hole for the string, and at the wide end there is a large triangular-shaped notch cut out of the wood, a peculiarity I have also observed in the bull-roarers (*mudjeegong*) used by the Wiradthuri tribes located on the Upper Murrumbidgee River.

Fig. 12 represents the *dhooanbooka* or *yoolundry*, the bull-roarer in use among the Clarence and Richmond River tribes and those of adjacent districts. Its length is 1 ft.  $11\frac{1}{2}$  in., the breadth slightly over  $4\frac{1}{2}$  inches, and its greatest thickness about  $\frac{3}{4}$  of an inch. Its form differs from any of the others shown on the plate, by having a nick cut in the small end for the purpose of facilitating the attachment of the string. One side of the instrument is of the usual convex form, whilst the opposite side is slightly hollowed or concave, as illustrated by a cross-section through the widest part of the instrument (Fig. 15). On the concave side is a shallow hole or pit about  $\frac{1}{2}$  of an inch deep, above which are several transverse lines, extending almost the whole width of the instrument. Along the median axis of the convex face of the bull-roarer are about half-a-dozen V-shaped devices, with the apices pointing towards the larger end, and on each side of these marks are one or more rows of dots. As the large and small bull-roarers used by the tribes mentioned are both marked in a similar manner, the carving on the convex side of the *dhalgungun* is shown in Fig. 13, in order to save giving duplicate drawings of each instrument.

Fig. 13 is a drawing of the *dhalgungun*, or small bull-roarer, equivalent to the *moonibear* (Fig. 8), and is used by the same tribes as in the case of Fig. 12. The instrument illustrated is 5 inches in length, nearly an inch in breadth, and  $\frac{3}{8}$  of an inch in thickness, and is made of myrtle wood. The handle and string attached to it when in use are somewhat shorter than those attached to Fig. 8. It is likewise rounded on one side and slightly hollowed on the other, as in Fig. 15, and has the same characters carved upon it as the larger instrument.

In some of the bull-roarers which have a nick or notch in the end to which the string is attached (as in Figs. 12, 13), there are also a few small projections, somewhat resembling the teeth of a saw, on both edges of the instrument, about on a level with the hole, or slightly in advance of it. When the string or sinew is passed through the hole, it is also twisted round the bull-roarer, and the raised teeth referred to prevent its slipping, and make the fastening more secure.

Fig. 14.—This drawing shows the *gheewarra* or *ngaranya*, the small bull-roarer used at the initiation ceremonies of the tribes occupying the Macleay and Bellinger Rivers, on the north-east coast of New South Wales. The length is  $4\frac{1}{8}$  inches, the breadth  $\frac{1}{8}$  of an inch, and its thickness  $\frac{1}{8}$  of an inch. It is attached to a handle and has a short string, and is used in precisely the same manner as the *moonibear*.\* These tribes also use a larger instrument, called *yeemboomul*, which is similar in all respects to Fig. 9, already described.

It is unnecessary to add that there is no fixed size for either the large or small kinds of bull-roarers among any of the tribes. The larger the instrument the louder the sound, provided it be properly made, but at the same time it is harder to swing it, and the wear upon the string is increased by the greater weight. Generally speaking, a bull-roarer from 1 foot to 18 inches in length is found sufficiently large for all purposes. Bull-roarers of the *moonibear* type are made just heavy enough to give them the necessary impetus through the air.

#### 9. Aboriginal Songs at Initiation Ceremonies.

In an article contributed to the Anthropological Society of Washington, in 1896, I described the *Bunan*† ceremony of initiation in force among the native tribes occupying the south-east coast of New South Wales from the Victorian boundary to Bulli, and extending inland from 80 to 100 miles. Since then I have also described a preparatory inaugural rite, called the *Kudcha*‡, which is practised by the same people.

In the papers referred to, I have given the words of certain sacred songs used in the celebration of these ceremonies, but am now in a position to incorporate the music of some of them in this article. The words of one of the songs chanted by the old men in the presence of the boys are:—

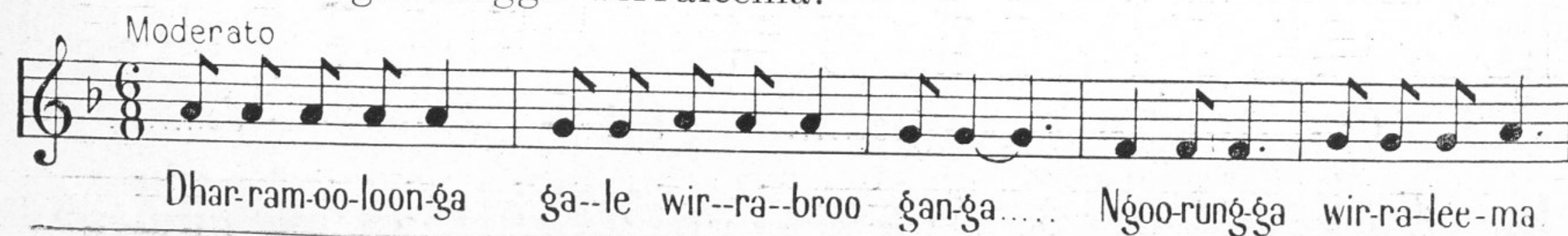
Dhurramooloon, Dhurramooloon  
Binggilbee moondanuna  
Gummerawarawa

These words are droned monotonously *ad libitum* to the following music:—



Another song has the following words and music:—

Dharramooloonga gale wirrabroo ganga  
Ngoorunga wirraleema.



\* "Journ. Anthropol. Inst.," xxv, 298, Plate XXVI, Fig. 39.

† American Anthropologist, vol. ix, pp. 317-334.

‡ Journ. Roy. Soc. N.S. Wales, vol. xxxiv, pp. 276-281.



The words and music of another song are:—

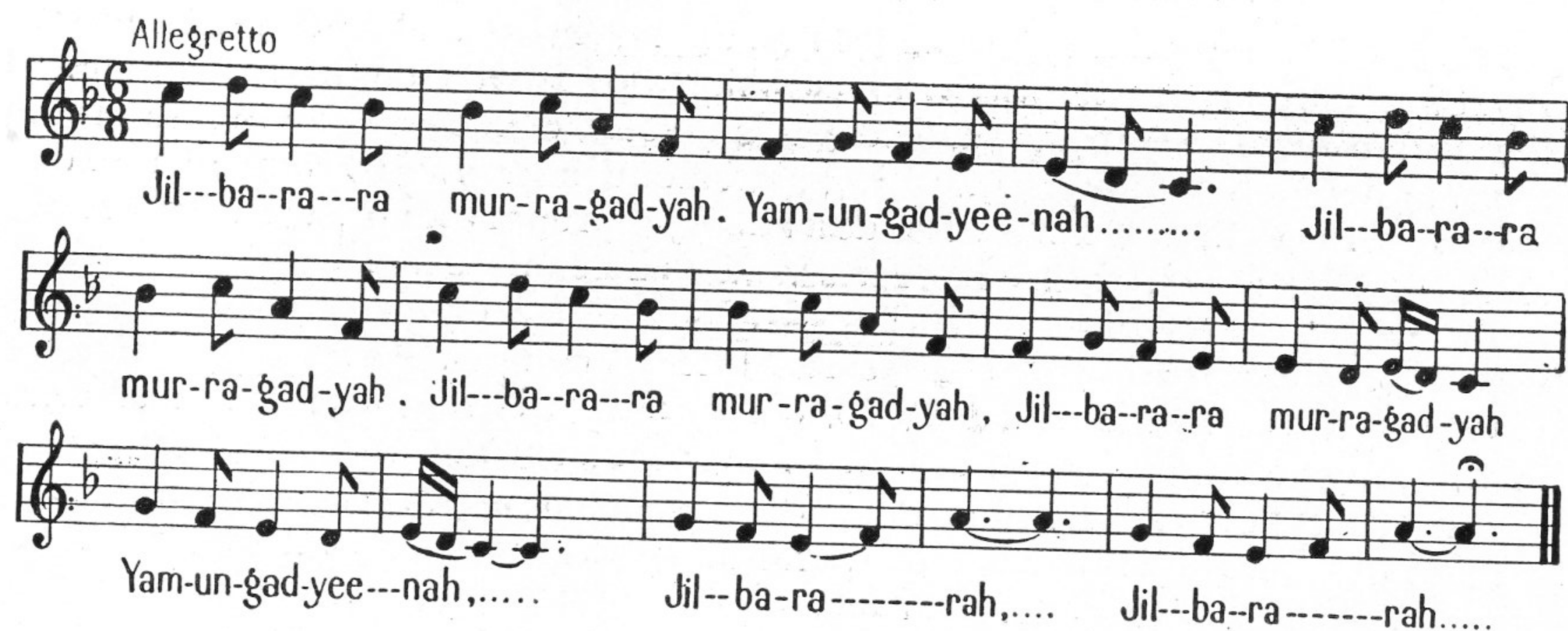


Ngallalbā wallooolbā jilleejilleen.

One of the songs used by the women in the morning during the time their sons are away with the chief men undergoing initiation is:—

Jil'barara mur'ragadyah'  
Yam'ungad'yeenah'

This song is sung to the following music:—



During the same period the mothers of the boys chant songs in the evening, of which the following is a specimen:—

Ngul'leejee gawinjee mullinda  
Gunalyee mong'gajee.

The music runs thus, repeated as long as required:—



Another song sung by the boys' mothers, with the accompanying music, is as follows:—



Millingalee kuberinya, millingalee kuberinya  
Binngandabee pambeelonya  
Mirreewala pambeelonya

These are the first songs of the aborigines of this part of New South Wales which have ever been set to music. It may be mentioned that the words of these chants possess no meaning to the present natives, having been handed down from one generation to another. They were probably in the language of conquering tribes in the past. They are considered sacred, and are never used except at the initiation ceremonies, of which they constitute an important essential. The words and the music of the foregoing six chants were taken down, after repeated trials, from the mouths of the native singers.

#### 10. Some Curious Beliefs.

The following are a few of the primitive beliefs which have a very wide distribution among the aborigines of this continent.

In every part of Australia which I have visited, the bat and the night-jar hold a peculiar place in the superstitions of the people, and figure largely in their stories. The former is the friend of all the men, and the latter of all the women. In some tribes the woodpecker (tree-creeper) is substituted for the small night-jar. The Rev. L. E. Threlkeld was the first to discover and report these specific totems of the two sexes. In his grammar and vocabulary published in 1834, upwards of seventy years ago, he states: "*Tilmun*, a small bird the size of a thrush, is supposed by the women to be the first maker of women, or to be a woman transformed after death into that bird; it runs up trees like a woodpecker. These birds are held in veneration by the women only. The bat, *Kolung-kolung*, is held in veneration on the same ground by the men, who suppose the animal (bat) a mere transformation."\*

Rev. C. W. Schürmann, writing upon the Parnkalla tribe of Port Lincoln, South Australia, in 1846, relates the following superstition:— "A small kind of lizard, the male of which is *ibirri* and the female *waka*, is said to have divided the sexes in the human species, an event which would not appear to be much approved of by the natives, since either sex has a mortal hatred against the opposite sex of these little animals—the men always destroying the *waka*, and the women the *ibirri*."†

Mr. James Dawson, in 1881, describing the customs and beliefs of the aborigines of the western portion of Victoria, reports as follows:—"The common bat belongs to the men, who protect it against injury, even to the half killing of their wives for its sake. The fern owl, or large goat-sucker,

\* "An Australian Language," p. 49.

† "The Native Tribes of South Australia," p. 241.





belongs to the women, and, although a bird of evil omen, creating terror at night by its cry, it is jealously protected by them. If a man kills one, they are as much enraged as if it was one of their own children, and will strike him with thin long poles. The mantis belongs to the men, and no one dare kill it."\*

The three investigators just named were unquestionably the first to report these distinctive totems of the sexes. Rev. L. E. Threlkeld took the lead in drawing attention to the custom in New South Wales tribes; Rev. C. W. Schürmann did the same for South Australia; and Mr. James Dawson was the first to report the bat, the owl, and other animals as sex-distinguishing totems among the aborigines of Victoria.

A custom which is quite common in New South Wales and Victoria is that of carrying the desiccated hands of a deceased relative or friend, or even of an enemy, as a charm against evil, as well as a giver of warning when any danger is near. Old men and women of the Thurrawal, Thoorga, and Dyirringa tribes have given me the following particulars of the practice in their territory. The hand is severed from the arm at the wrist, and when thoroughly dry is fastened to a string made of opossum fur or other material, and is then suspended round the neck, hanging down upon the breast of the wearer. Sometimes another dried hand is suspended in the same way between the shoulders at the back. If an enemy is approaching from the rear, the hand which is hanging between the shoulders is supposed to gently scratch or pinch the wearer to give him warning. If there is any danger in front, the hand suspended on the chest does the scratching, and so enables the wearer to foil his enemies. These charms also give notice in the same way of the proximity of game when the native is out hunting.

Mr. A. McMillan reports that when he was travelling in Gippsland in 1840, more than sixty-five years ago, he overtook an old blackfellow, respecting whom he says: "The only ornaments he wore were three hands of men and women, beautifully dried and preserved."†

In 1841, Mr. W. T. Mollison heard of "portions of the body, usually hands or fingers, being observed in the lubra's (women's) bags. In conversation they admitted the fact."‡. These two instances are the earliest record of this custom among the Australian aborigines.

Another superstition which is firmly rooted among all Australian tribes is that of transmigration or reincarnation. Ever since the time when New South Wales was first settled by Governor Phillip, we have heard of the inveterate belief of the blacks that they would reappear in the form of other men after death. Buckley, the white man who spent so many years with the wild natives of Port Phillip, Victoria, is said to have owed his life to their assuming that he was one of themselves who had come to life again. A similar belief was discovered at Port Lincoln, South Australia, in 1846, by Mr. Schürmann, who says, "they certainly believe in the pre-existence of the souls of black men."||

It is stated in the Rev. G. Taplin's work, that among the Nimbaldi tribe, about Mount Freeling in South Australia, a spirit called Muree, which may be either a male or a female, meets a black woman, and throws a small waddy, *weetchu*, under her thumb nail, or under the great toe nail, and so enters the woman's body. In due time she gives birth to a child.§

Rev. Donald Mackillop reports that on the Daly River, Northern Territory, the souls of children are supposed to be shut up in certain hills, scattered over the country, and are given out when an infant is to be born.\* Superstitions substantially the same in character as those referred to, in various forms to suit surrounding circumstances, have been observed in every part of Australia where investigations have been made.

#### 11. *The Aboriginal Fisheries at Brewarrina.*

Near the north-west extremity of the town of Brewarrina, at a bend in the Darling River, there is a low bar of desert sandstone across the channel, forming a natural weir or dam when the river is low. As soon as the water in the river rises to the level of the rocky bar it flows over, and forms a series of shallow rapids for about a quarter of a mile, in which distance it is said to fall 11 feet.

In examining the channel of the river at the site of the rapids, we find evidence of the sandstone outcrop at this spot having been much wider and higher in ancient times than at present. All the way along the southern bank of the river, from the present bar downward, for about 15 chains, and at a few places on the opposite bank, the desert sandstone is exposed. Here and there on the river floor, within the same distance, isolated masses of this rock, which have withstood the erosion of flood-waters, are still standing in their original position.

From these indications we may safely infer that the river, in the course of a long period, has cut its way through about 15 chains of the desert sandstone—that is, from about the point D on the plan upward to the existing bar. During the progress of cutting out the river channel, fragments of rock of various dimensions were worn off and broken up by the water, and formed into boulders of different sizes.

I shall endeavour to describe the fish-traps and their construction. The river-floor at this point consists of immense numbers of loose stones, ranging from a few pounds to a hundredweight, with others of greater dimensions. The aboriginal builders collected large quantities of these stones and erected walls, in the way many of our farmers about Kiama used to build stone dykes or fences around their farms. These walls were erected in a substantial manner, being wider at the base, where also the larger stones were used, and tapering upward to the top. The stones were merely laid in position, without mortar or dressing of any kind, forming a structure sufficiently strong to resist the force of the current. In such level country the flood has little impetus. The large stones used in the foundation or base of the wall were rolled into position, whilst the smaller ones were carried by the builders. Areas were enclosed in this manner, varying in dimensions from that of a small pond almost down to the size of a plunge bath, the walls of one enclosure being common to those around it, forming a labyrinth of inextricable windings. These enclosures were continued right across the channel from bank to bank, and occupied all the suitable portions of the river-floor for about a quarter of a mile along its course. Some of the pens or traps were long and narrow, others nearly circular, whilst others were irregular in shape, according to the formation of the bed of the river and the facilities for obtaining the heavy building material close at hand.

Each division of the tribe, and the families composing it, had their own allotted portion of the fishing grounds, and every pen or trap had a name by which it was known and spoken of among the people.

\* Trans. Roy. Soc. South Australia, Vol. xvii (1893), p. 262.

\* "Aborigines of Western Districts of Victoria" (Melbourne, 1881), pp. 52, 53.

† "Letters from Victorian Pioneers," p. 258.

‡ *Op. cit.*, p. 184.

|| "Native Tribes of South Australia," p. 235.

§ "Folklore, Manners, etc., South Australian Aborigines" (Adelaide, 1879), p. 88.



The following are a few of these aboriginal names:—

Mirrā'gan, Gū'na, Thau'ia, Il'prūnya, Buddhau'inga, Giwirri, Ngiddēri, Gūmboar'o, Mu'arba, Thulūr'digana, Būragūman, Būrugūngal', Dhau'danbaia, Mogēl', Goāra, Wirridung-kunya, Wāgurma, Bau'andanna.

The deeper portion of the river bed, where the water has the most fall, and consequently runs the swiftest over the rapids, is called by the natives "Wirruwirrumba."

Plan.—The accompanying plan has been prepared by me from a detail survey which I made in 1901, and shows 12 chains of the channel of the Darling River, from A to J, representing the dykes and pens still existing on the best preserved portion of the ancient fishing locality. Extending upward from A (see plan), there are about 8 chains more of the river floor containing fragments of old fishing pens, but I did not include them in my survey, and therefore they do not appear on the plan.

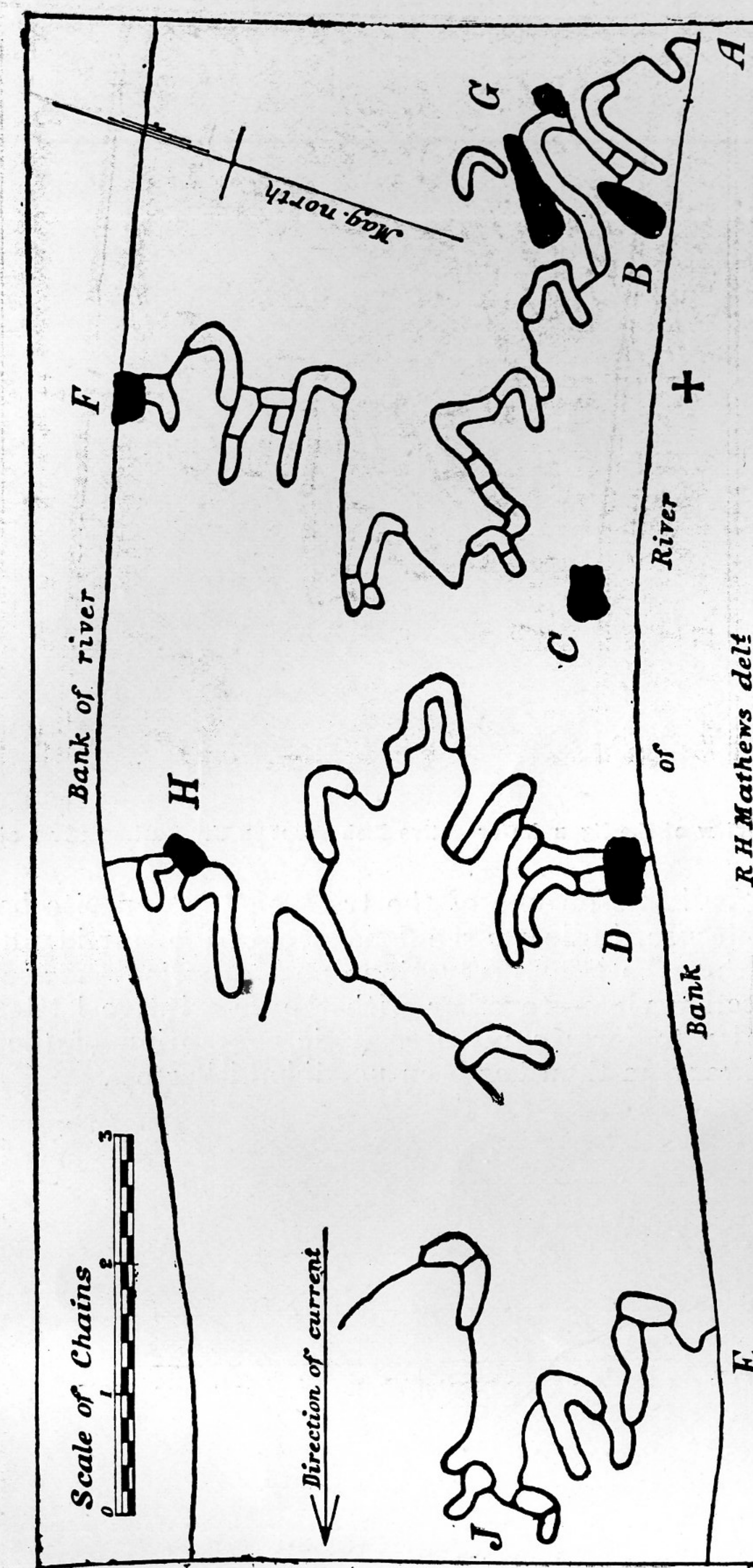
Near the southern bank, and at a few other places in the bed of the river, there still remain some masses of original rock which have withstood the ravages of time, and are shown in solid black on the plan. The following are the aboriginal names of most of them:—B (see plan) is called Muar; C, Dherraginni; D, Kullur; F, on the northern shore, is known as Kirragurra; G is Wirringga; and H, Munnhagiūr. The rock F is supposed to be haunted by evil spirits called *Wundur'ramala'*. If a strange blackfellow were to interfere with the fishing pens, these spirits would cause some accident or sickness to befall him.

The blank spaces on the plan were, in the olden days, studded with fishing pens, of which the wreckage is visible in many places in the shape of scattered boulders and indistinct outlines of former enclosures. But the whole of the river floor was not occupied with the maze of traps. A waterway had to be left for the fish to travel up to the catching pens of families located higher up-stream, and for this purpose the most uneven portions of the bottom were selected, because the least suitable for building upon.

The black, sinuous lines drawn upon the plan represent the walls of the different pens, and groups of pens, with the "wings" or outlying walls which guide the fish into the enclosures. I have not shown the openings into the traps, because they were sometimes made in one part of the wall, and sometimes in another, according to the part of the stream in which the "school" of fish were approaching.

At the point marked with a cross on the plan, on the southern bank, between C and A, there are about two dozen grinding-places, worn in the rocks by the natives sharpening their stone hatchets. About 3 chains eastward, or up the river from A, there are a number of similar grinding-places.

*Photographic view.*—The photograph from which this zinc-plate has been prepared was taken from some high ground on the left bank of the Darling River, a few yards easterly from the point marked A on the plan, and faces downward and diagonally across the channel, in a generally north-westerly direction, taking in a perspective view of most of the fishing-pens shown on the plan. The large horizontal rock on the left-hand side of the photograph is the same as the rock marked B on the



10. Plan of the Ngünhu or Native Fish Traps in the Darling River at Brewarrina.