On Some BORNEO TRAPS.

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[WITH PLATES IV TO X.]

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THE following descriptions were written and the accompanying sketches made in the jungle of North Borneo. The traps were made for me by my own Dyaks, some for the purpose of illustration, some for the purpose of filling our scant larder.

The words, whether Dyak or Malay, are spelt phonetically, and the meaning given whenever it is known to me.

I. The Jerat. (Plates IV and V.)

The Jerat, Figs. 1 and 2, is a spring and noose trap of universal use amougst Dyaks and Malays in the forest. The word jerat with slight modifications is known far and wide through the archipelago, thus:—

The Malay and Dyak is jerat.

"Sunda "jiret.
"Batavian "jirat.
"Tagala "dalat.

The Dyaks also call this trap penjuk.

The word jerat means literally a running noose, and the full name of the trap would be jerat burong = bird noose, or perankap jerat burong = trap-noose-bird.

The jerat consists of the following parts:—

Fig. 2. a. The *Tidat* or trigger. b. The *Bunkang*, or hoop.

c. The Peningkas, or catch.

d. The Ambar, or noose-cord.

Fig. 1. e. The Pantar, or platform.

f, f. The Liar, or guard-sticks.

g. The Baur, or spring.

h. The Sabar or Pagar, or fence.

The Bunkang or hoop (Malay, Jav., Sund., benkang, curved) is of pliable wood, about the thickness of a lead pencil, and the size of a croquet hoop. It is firmly fixed in the ground.

The *Tidat*, or trigger, is a small stick about three inches long. Its upper end is tied to the cord or *ambar* about two feet from the noose-end.

The Peningkas, or catch, is simply a stick rather longer than

the width of the bunkang, or hoop.

The Ambar, or noose-cord, is of twisted bark, or, where obtainable, of stout string, the noose being a variety of running bowline. This is the real jerat. The word ambar may, perhaps, be allied to ambur, hambur, spread, but this is doubtful, as ambur means rather to spread about as in sowing rice, than to spread wide open.

The Pantar, or platform (? Malay pantat, a base or bottom), consists of four or five straight sticks about nine inches long.

The Liar are only sticks placed on each side of the bunkang,

or hoop, to protect it.

The Baur, or spring, is a flexible stick which acts exactly

like the stick in a common mole-trap.

The Pagar, or fence, is rapidly made by cutting branches, sticking them in the ground at an angle, and bending them so as to roughly catch. It is only made about eighteen inches high.

Jerats were always used by me in preference to other traps

for catching argus and other pheasants and jungle fowl.

A place is sought showing the beaten tracks of the birds, and a long *pagar* is erected, right across a valley for instance. Openings for *jerats* are left every twenty yards or so, and *jerats* are also placed across every bird track.

The jerat being made it is set as follows:—

The baur, or spring, is bent down, and the tidat, or trigger, passed over the bunkang, or hoop, the head of the trigger catching the back of the hoop. At the same time the pening-kas, or catch, is slipped under the tidat and the baur released. The trigger is now set. The liar are now placed, one end on the ground, the other on the peningkas, and on the platform so formed the ambar or noose is spread, and then concealed by a few leaves.

The pagar is so slight that a bird could easily get through it, but they don't. When foraging, the birds are not particular where they go so long as the way is easy and the food plentiful. Hence the slightest obstacle will turn them. They saunter along the pagar, come to an opening and start through. The moment they step on the platform it falls, releases the trigger, up goes the baur, and the victim hangs suspended by the legs.

It is my favourite trap. Six can be made in an hour at no cost, and it is very effective. I have caught argus, fire-back

and Bulwer pheasants, jungle fowl, porcupine, wild cat, civet cats, &c., in them. Once we got a monkey, but a friend released him. Many times we got planduk, or mouse-deer, into jerats but they always got away.

II. The Bubuang, or Krinkap. (Plates V, VI.)

This is a fall trap for birds. The *bubuang* may be allied to *bubu*, a fish trap something like an eel creel, and does not seem to have any connection with *buang*, to throw out, a word which has many prefixes, but not *bu*.

The word krinkap I suspect to be a Dyak modification of the Malay perankap, a common word for a trap, signifying literally that which catches.

The bubuang is a clumsy contrivance used for catching jungle-fowl and pheasants. It is neither so easily made nor so effective as a jerat, and as it nearly always kills the victim, is not in use by the Moslem Malays. The only ingenuity about it is the trigger.

The parts of a bubuang are as follows:--

- Fig. 3. a. The Kalung, or drop.
 - b. The Tiang, or posts.
 - c. The Baur, or spring.
 - d. The Tali, or cord.
 - e. The Pagar, or fence.
- Fig. 4. f. The Pungayet, or catch.
 - g. The Tuil.
 - h. The Peningkas, or trigger.
 - i. The Runut.

A fence or pagar about eighteen inches high is erected, at one end of which two stout sticks, tiang, supporting a cross-stick in the forks, are placed. At the other end of the pagar a small log of wood blocks up the opening. A roof, or lantei, rests loosely upon the end log and also upon the kalung, or drop, also a block of wood.

The heavy *kalung* with the roof resting on it is hung by bark cords to the *baur*, or spring-stick, at the farther end of which a

string, tali, connects it with a trigger.

The trigger is placed inside the pagar on the right hand. It consists of a stick, pungayet, with a tine, and is firmly fixed in the ground. The end of the tali is attached to a straight stick, tuil, which catches under the tine and rests upon the double pointed peningkas, or trigger. The tali thus pulls up the tuil and presses it upwards against the tine and downwards on to the top of the trigger.

To the upper part of the trigger a fine string is attached and passes across the trap to the opposite side where it is fastened to the trigger. This cord or runut is about five inches from the ground.

A bird entering the trap presses against the runut, the trigger gives way, releasing the tuil, and the kalung falls with the lantei

on top of it.

The words tiang, tali, lantei, and pagar, are common Malay words signifying respectively post, cord, floor, and fence, and are not technical terms.

III. The Kelung. (Plate VII.)

The kelung now to be described is a deer trap consisting essentially of an oblong enclosure of rough poles, roofed, and

having a portcullis-like door.

The word kelung is in universal use in the Malay states for the extensive fish-stakes which form such a feature along our shores, and I was somewhat surprised to find the name in use both by Dyaks and Malays for a deer trap. I hope to write a separate paper on fish traps, and will only here remark that the fish kelung is a labyrinth of split-bamboo mats leading into a central enclosure.

The deer kelung consists of the following parts:-

Fig. 5. The enclosure or *Pagar*, with its tiang, &c., as in the bubuang, but of course much larger.

a. The Pintu, or door.

b. The Baur, or lever.

c. The Tali, or cord.

Fig. 6. d. The Tuil.

e. The Sekang.

f. The Peningkas.

g. A peg with no special name.

h, h. The Runut, or lines.

The height of the pagar is about 6 feet (1 depa), and the length twice as much. The trigger is placed outside the pagar near the end furthest from the door.

It will be noticed that what is here called the sekang is the tuil of the bubuang, and the tuil of the kelung is the pungayet of the bubuang. I could get no explanation of this though I made special inquiries.

The sekang catches in a notch in the tuil at one end, and in a similar notch in the peningkas at the other. The peningkas

also engages with the peg by a notch.

Two lines, runut, lead from the peningkas to the far side of

the enclosure to which they are fixed. These runut are made of a fine black Iliana, and if string be used it is always dyed black.

In the pagar behind the *runut* a quantity of pandan (*Pandanus*) leaves and a little salt are placed as bait. The deer enter the pagar, press the runut, displace the peningkas and the door falls.¹

IV. The Pěti. (Plate VI, VIII.)

We now come to two very interesting methods of taking

larger game such as pigs and deer.

The *e* is very short and the word is in sound much like the French *petit*. It may be allied to the Malay *petik*, to "touch" a stringed instrument.

The peti consists essentially of a spring armed with a fixed spear, and as will be shown, may help us to understand how the

bow might have been produced.

The parts of a *peti* are as follows:—

Figs. 7 to 9. a, a. Pangat, or posts.

b. Mata siah, or spear.

c. Unkrung, or ring.

d. Tuil, or trigger.

e. Has no special Dyak name.

f. Mutan, or band.

g. Runut, or cord.

h. Klandu, or toggle.

The size of the peti depends upon the game sought.

For pigs the pangats are about $1\frac{1}{2}$ depas (9 feet) and the mata siah $1\frac{1}{2}$ jenkals (11 inches). The mata siah is generally made

of bamboo, and the binding cords and runut of bark cord.

Two stout posts, pangat, a, are firmly fixed in the ground, and to the top of one of them a tough elastic stick is bound by one end and acts as a spring. Near the end of this the mata siah, b, is attached. The unkrung, c, is a ring of plaited split rotan, about $2\frac{1}{2}$ inches in diameter and half an inch wide. This is quite loose. The twil, d, or trigger, is a thin stick 4 inches long, tied to the free end of the mutan, f, or band, which is fastened to a pangat. A longer stick, tough and elastic, completes this part of the mechanism.

To set the *peti* the *panyat* a^3 is pulled back towards *panyat* a^2 ; the *mutan*, f, is then passed round *panyat* a^3 below the *mata siah*, b, the end of the *tuil*, d, pressing against the opposite side of *panyat* a^3 as shown in the plan. The stick, e, is passed

¹ Deer are sometimes caught with a large Jerat, baving a hook in place of a noose. I have not yet seen this in use.

beneath the tuil, d, touching it and its other end sprung back to the opposite side of pangat a^2 . Over the ends of d and e, the unkrung, c, is placed to prevent d and e flying apart; d and e by their outward pressure holding pangat a^2 in position.

To pangat a^1 , at the height of the unkrung, is tied the runut, g. This passes through the unkrung and terminates at the kālanduk, h, a thin stick or toggle somewhat longer than the diameter of the unkrung. The runut is nearly horizontal.

An animal passing between pangat a^1 and the mata siah pushes the runut outwards, draws up the kālanduk which pulls off the unkrung and releases the mata siah, which flies to pangat a^1 with terrible force, often stabbing the victim to the heart.

The peti is a fearful machine by which many Dyaks have lost their lives. It has been effectively used to kill the rhinoceros. My men were well acquainted with its use, and I had to prohibit it for fear of accident. It is forbidden in Sarawak.

V. The Pēti Lanchar. (Plates IX, X.)

The peti lanchar is even more interesting than the peti, combining in itself some of the principles of the bow and catapult.

It is not known to every Dyak tribe, and most of my men, Kalakas, were ignorant of it. It was, however, speedily adopted by them till I put a stop to it. In Sarawak it is not allowed to be used.

My mandore, Sali, a Sarawak Malay, made the first for me, and the names of the parts are those he gave me. None of my Dyaks knew any words to represent the parts.

Figs. 10, 11. a, a, a. Tiang, or posts.

- b. Jimbang or Jimbattan, or bridge.
- c. Galang or Kalung, crotched sticks.
- d. Juran, or spring.
- e. Pungati, or trigger.
- f. Chinchin, or ring.
- g. Sasawat, or string.
- h. Mata peti, or arrow. i, i. Tukul bubu, or pegs.

The peti lanchar consists of three tiangs, a, from 18 inches to 2 feet high, eleft at the ends to receive the jimbang, b, and kalung, c. These five parts form the rigid frame.

A long elastic pole, the jurun, d, is fixed at one end in the

1 It is not necessary, though preferable, for the stick to touch the tuil. A figure is purposely drawn with the parts free, to show the arrangement of parts.

ground and further secured by two pegs or tukul bubu, i (trap pegs), one on each side. These hold the jurun rigid while it is bent back in setting.

On the jumbang, b, the chinchin, or ring, f, of rotan, travels, to which is attached the sasawat, g, a cord of thin black creeper. The pungati, e, is a piece of pointed stick attached to the tiang, a^1 , by a short cord. The arrow, or mata peti, is a stick or bamboo pointed at one end and notched or forked (gingin batar) at the other.

To set (passang) the pĕti the jurun, d, is bent backwards against tiang a¹; the string of the pungati, e, is then passed over it and the butt end of the pungati pressed against the jurun, the point being inserted in the chinchin, or ring, f.

The sasawat, g, is led across a deer path, the trap being hidden in the jungle. No pig or deer would pass a white sasawat, hence it is always black.

The victim pressing against the sasawat, pulls the chinchin, or ring, from the pungati, the jurun is released and the mata peti shot forward. The mata peti rests against the jurun and on the galung.

It is evident that such a trap fires its arrow in a very uncertain direction. Hence, where bamboo can be obtained, the mata peti is inserted in a bamboo on each side of which a groove is cut. The jurun presses against the notch as before, and the bamboo, acting as a barrel, makes the arrow fly straight.

VI. The Peti and the Bow.

It is singular that the Dyaks having invented the *peti* and the *sumpitan* never designed the bow, which is also unknown to the Malays of Borneo. Yet the *peti* contains all the elements necessary for making a bow.

The common peti is a bow with an arrow fixed to it, and the string attached to one end by a temporary catch. If the arrow worked loose it would shoot away when the trap was sprung.

In the peti lanchar a step in advance can be seen. The arrow is moveable; but the string is still detached from the bow.

The bamboo barrel is most likely a suggestion from the sumpitan.

VII. Etymology.

A few words may be said respecting the etymology of the terms used. Not speaking the Dyak language my information was derived through Malay, and my instructors failed to give

me the meaning of many of the words. "What does lanchar mean?" I would ask. "Why this is the lanchar," would be the reply. As many of the Malay words are in common use it may be most of the Dyak words also are not technical terms. In the following notes D. stands for Dyak, M. for Malay:—

Jerat, pr. Jer'-at, D. and M.

Tidat, pr. Tē-dat, a trigger, D. and M., appears to be synonymous with pungati.

Bunkong, pr. Bunk'-ong, a hoop, D. and M.

Peningkas, pr. Peuing'-kas, D. and M. is applied to a stick which falls to the ground from a very small distance, as distinguished from kalung, which falls from a

height.

Liar, pr. Lē-ar, D. and M., synonymous with Malay sabar and sawar. The sticks or broken branches used to mark the route when in the forest are called by their names, which are not given by Swettenham, Maxwell, or Favre.

Pantar, D. and M., in common use in N. Borneo.

Baur, pr. Bough-rr, D. and M., an elastic stick or spring.

Kalung, D. and M., see peningkas.

Sekang, pr. S'kang, D.

Lanchar, D.

Pungati, pr. Pung'-ati, see Tidat.

Sasawat, pr. Sasar-wat, D. and M., a thin cord, as distinct from tali, a cord which may be string or a cable. Synonymous with runut.

Runut, D. and M., see above.

Tukul Bubu, D. and M., Tukul = pig bubu; = trap.

Mata Siah, D. and M. Mata here means sharp. It is quite distinct from mata, eye. Malays here say mata pisan, to sharpen a knife. Siah is Dyak and its meaning unknown to me.

I must leave this subject to competent philologists, and here only record the little I know, because the words do not occur in

ordinary dictionaries.

All the Borneo natives use pit-falls with sloping sides, like native graves, but there is nothing of particular interest in them. This paper does not pretend to be exhaustive, but merely records accurately the traps I have seen.

Explanation of Plates IV to X.

A series of figures of Borneo Traps, sketched by Mr. Skertchly, to illustrate the foregoing paper.

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Plate IV, fig. 1.—The Jerat, or spring and noose trap.

"V, "2.—The trigger of the Jerat, set.
"3.—The Bubuang, or Krinkap.
"4.—The trigger of the Bubuang, set.
"6.—The Peti, a trap for large game.
"7.—The Peti, a trap for large game.
"8.—The Kelung, or deer-trap.
"9.—Plan of the Peti, set.
"9.—Plan of the Peti trigger, set.
"1X, "10.—The Peti lanchar.
"X, "11.—The trigger of the Peti lanchar, set.
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Journal Anthropological Institute, Vol. XX, Plate IV.

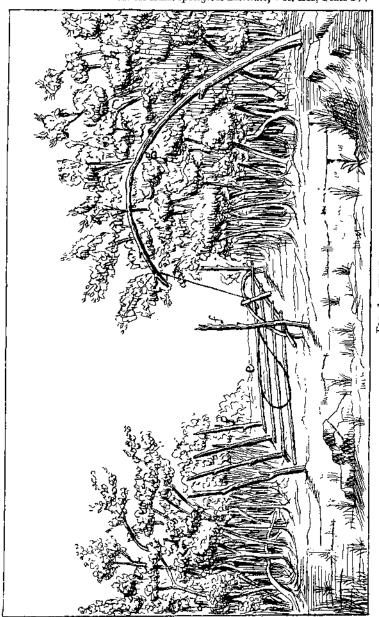
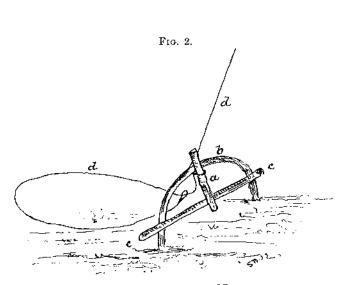


FIG. 1.—JEBAT.



TRIGGER OF JERAT, SET.

