

A SHORT PRELIMINARY NOTE ON THE SUITABILITY OF
THE DEAD WOOD OF *ACACIA CATECHU* FOR
KATHA-MAKING.

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Under cover of his letter No. C.-1696 of 1910, the Conservator of Forests, Southern Circle, Madras, forwarded a report from the Range Officer, Coondapur, District Canara, on the unsuitability of dead tree of *Acacia Catechu* for Katha-making. The

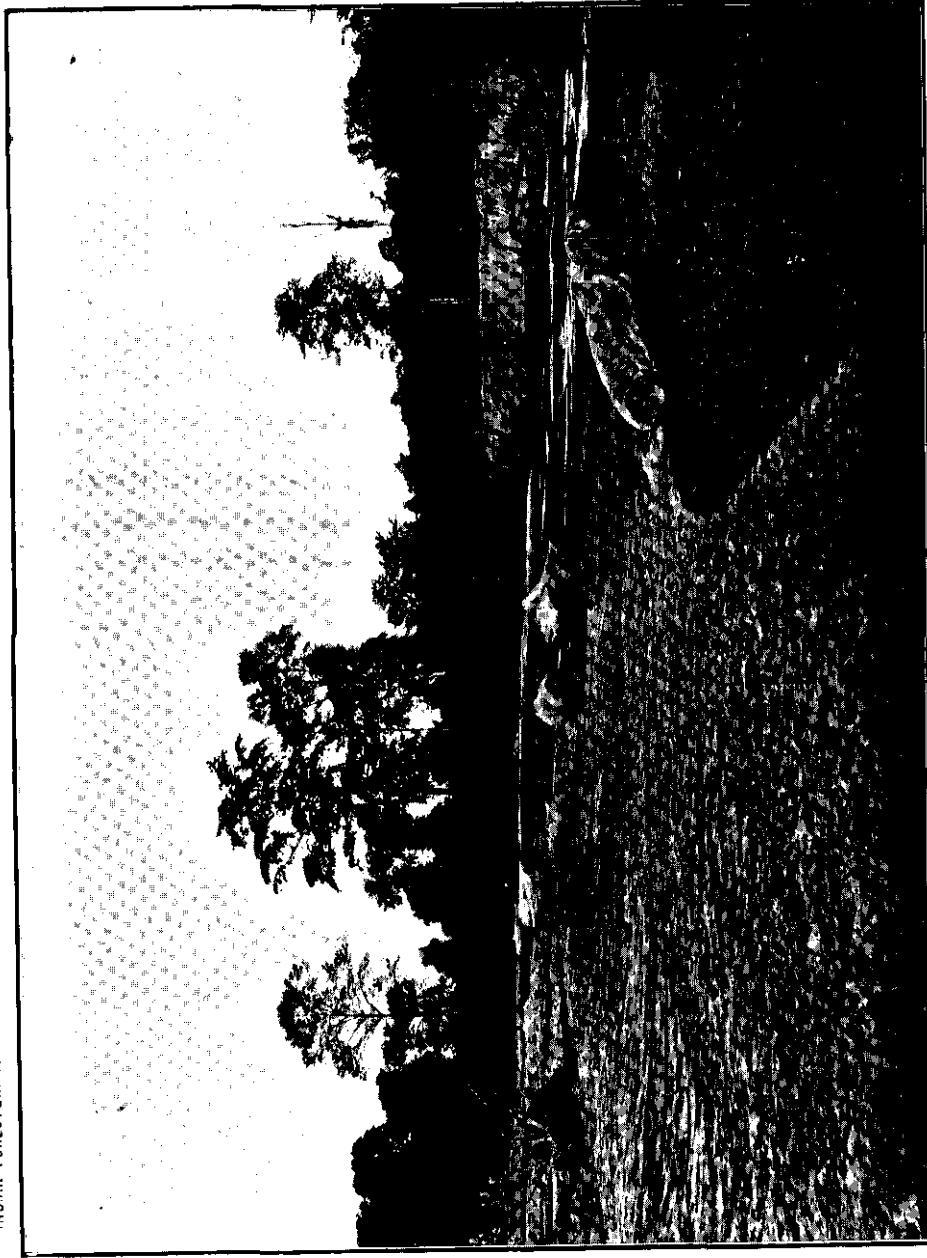


Photo.-Mechi. Dept., Thomason College, Roorkee.

HEAPED TEAK LOGS IN A FLOATING-STREAM, PYINMANA, UPPER BURMA.

fact pointed out by the Ranger was worth a thorough enquiry. Accordingly, a sample of the wood from a dead tree of *Acacia Catechu* from Madras was received for examination. To see if the heart-wood of dead trees differed in any way from that of the living tree, two specimens of the heart-wood, one from a naturally dead tree and the other from a tree killed *in situ* by girdling were also examined. The following table embodies the results of the examination:—

Description of the sample.	Moisture, per cent.	Aqueous extract, per cent.	Alcoholic extract, per cent.	Catechu, per cent.
1. Heart-wood of dead tree from Madras ...	8.23	12.72	9.76	2.56
2. Heart-wood of dead tree from the Siwaliks ...	9.58	16.40	12.38	1.48
3. Heart-wood of a tree killed <i>in situ</i> by girdling from the Siwaliks ...	17.50	12.05	10.18	4.02

The percentage of catechin from the wood of both the trees which had died naturally, which had been standing for a considerable time in the forests, and which had therefore been exposed to climatic influences was very low; their wood must therefore be pronounced as unsuitable for katha-making. The cause of it being unsuitable for the extraction of katha is not due to the death of the tree, but to the anhydration and oxidation after death. By a series of experiments I have arrived at the fact that if the heart-wood is kept for a prolonged period after felling, this has an injurious effect on it as far as its suitability for extracting catechin is concerned. A specimen that in 1907 had 10.9 per cent. of catechin, 13.7 per cent. of alcoholic extract and 21.8 per cent. of aqueous extract, showed in 1911 only about 8 per cent. alcoholic extract and about 8 per cent. of watery extract, catechin *nil*, and had most of the tannin oxidised into catechu-red. The wood had become useless as a katha or cutch-producing material. The tree killed *in situ*, in spite of its having been dead for some months, still showed white deposits of Keersal and gave

a fairly average composition, though it, too, had lost a small percentage of its catechu tannin.

The conclusion which I arrive at is, that it is not the actual death of the tree which makes the wood unsuitable for kathamaking, but the effect of long exposure. Briefly speaking, the effect is one of anhydration and oxidation due to the "weathering" of the wood. Catechin first oxidises into catechu tannic acid which further is oxidised into catechu-red.
