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The American Association for the Advancement of Science

CLOCKS—ANCIENT AND MODERN

Mr. Chairman, Ladies and Gentlemen:

To those who have never had an opportunity to acquaint themselves with the history of the development of the modern clock, I wish to say that no attempt will be made to trace out that development. Time will not permit, as those familiar with the subject well know. I only wish to call to your attention a few points that I hope may be of general interest.

In Nepal, a small independent state situated on the northeastern frontier of Hindustan, there is still practised what is one of the crudest and probably earliest methods of measuring time. A copper vessel with a small hole in the bottom floats on water, sinks and fills sixty times a day. Each time it fills a gong, or ghari, is struck, in progressive numbers from dawn to noon; after noon the first gong struck indicates the number of gharis which remain of the day until sunset. Day is considered to begin when the tiles of a house can be counted or when the hairs on the back of a man's hand can be discerned against the sky. The day is divided into 60 gharis of 24 minutes each, each ghari into 60 palas and each pala into 60 bipalas.

Leaving India for Sumatra and stepping aboard a Malay proa we should there find, floating in a bucket of water, a cocoanut shell having a small perforation, through

1 Address of the retiring vice-president of Section A, American Association for the Advancement of Science.