

ABSTRACTS

MECHANICAL ENGINEERING SECTION

1. ANALOGIC EXPERIMENTAL METHODS IN HEAT TRANSFER. A. Ramachandran, *Electrotechnics*, March 1951, No. 23, pages 110-15.

It is well known that the solution of certain heat transfer problems defy rigid mathematical analysis as also direct experimentation. However, some of them may be solved by graphical or numerical methods but may require considerable time and labour. Such problems may be tackled by experimental investigations of a "similar phenomenon". This paper deals with the solution of heat transfer problems by the use of analogic experiments.

2. DESIGN OF HIGH SPEED WIND TUNNELS. A. Ramachandran, *Mechanical Engineer*, 1951, No. 2, pages 10-18.

The object of this paper is to present concisely the method of designing high speed wind tunnels. The different types of wind tunnel arrangements that could be designed are mentioned. The theoretical relations necessary for the design are presented. Considerations as to the design of nozzle and the use of guide vanes, dryer, cooler and heater are discussed.