A General Meeting of the Institute was held at the Kelvin Hall on Thursday, 21st August, at 8 p.m.

The President (Mr. R. J. Bennie) occupied the chair.

An apology for absence was received from the Hon. Secretary (Mr. G. Loudon). Mr. R. E. Cromwell acted as Hon. Secretary during the meeting.

Minutes of the 23rd May General Meeting were confirmed.

Messrs. O. Ruck and W. Brander were elected Hon. Auditors for the current year.

Messrs. G. H. Gough and G. B. Runciman were duly elected members. Messrs. J. Williams and W. R. Pollock acted as scrutineers.

Mr. W. M. Chas Rowe, Hon. Librarian, briefly explained the position with regard to the Library, as a result of the action of the Joint Rooms Committee, for reasons of retrenchment, in dispensing with the services of the Librarian.

A paper, illustrated by a large number of lantern slides, entitled "Lathes: A Comparison," was read by Mr. Edgar Thompson.

A vote of thanks to Mr. Thompson, moved by Mr. J. Wilkins, and seconded by Mr. H. E. Grove, was carried with acclamation.

Mr. H. E. Grove submitted a "Brief Note on the Methods of Conveying Instructions from the Designer to the Fabricator of Welded Construction."

A vote of thanks to Mr. Grove was carried with acclamation.

At 10.30 p.m. the meeting closed.
THE LIBRARY

Mr. Wm Chas. Rowe, Hon. Librarian, said that in making retrenchments the Joint Rooms Committee had dispensed with the Librarian, and it was proposed to run the Library largely upon a voluntary basis. The Library would be open for borrowing from 12 noon to 2 p.m. each week-day, and at other times on request, and for reference only. The indexing and general care of the books were left in the hands of the Hon. Librarians, an unduly heavy burden upon a few officers. The matter would be given a trial for a month, and they might revert to securing the services of a part-time paid librarian. The Library, particularly that part including V.I.E. foreign exchanges, contained books of exceptional value, were irreplaceable, and care must be taken to safeguard the treasure.

The President said the Council was very seriously concerned with the position. It regarded the custody of those invaluable and irreplaceable volumes as a matter of prime importance, and had requested Mr. Rowe to convey to the Joint Rooms Committee an expression of their deep concern at the position. At the same time, they recognised the serious financial position that had to be faced. They hoped the books would be absolutely safeguarded, and yet be made easily available for general use.

DIGEST OF CURRENT EXCHANGES

By Wm. Chas. Rowe, Hon. Librarian.


"Western Society of Engineers," April-June, 1930.—"The South Manchuria Railway and its Allied Constructions."
"Transmission and Direction of Radio Waves," "Tests of Steel Floor Framing Encased in Concrete."
"Proceedings of the Institution of Civil Engineers."
"Standards of Thermal Efficiency for Internal Combustion Motors."
"Plastic Yield, Shrinkage and Other Problems of Concrete and their Effect on Design."

PAPER

LATHES: A COMPARISON.

By Edgar Thompson.

The subject of this paper is probably the most commonly used machine tool in any engineering works, and as such is usually the first machine to be installed. Every engineer has some knowledge of a lathe, which is composed of a bed of various lengths, with a tool carriage capable of movement by mechanical means, a movable head with a stationary spindle, and a fast head with a spindle revolving at a variety of speeds and rotating the work with it. From this basic design many improvements have been brought about to meet the increasing demands for greater production; and so great has been this demand, with its resultant development, that we now have the province of lathe manufacture split up into three distinct classes, namely, Centre or Engine Lathes, Capstan and Combination Turret Lathes, and Automatic Lathes. These will now be considered in the order given.

CENTRE OR ENGINE LATHE.—This type of lathe is an indispensable unit in any engineering workshop, and shows to its best advantage where the class of work to be machined is of a variable nature, and where the quantities are so small in number that it would not be economical to prepare a tooling set up. With such a widely used machine as a Centre Lathe, it is only natural to find such a large preponderance of firms manufacturing Centre Lathes as compared with any other machine tool. This leads to a highly competitive spirit among manufacturers, who realise the necessity to keep abreast with the times. As a consequence, we find many interesting features which are quite distinctive, some of these being essentially connected with the firm's own individual design, and others bearing a national character.

In comparing these features, it will be helpful to bring the main items of the Lathe under sub-headings:—Beds, Aprons, Gear Boxes, Loose Heads, Fast Heads.