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SYNOPSES

OVERALL CITY CONSTRUCTION PLANNING OVER A VAST AREA
BY S. TANIGUCHI, C.E. MEMBER (Page 5)

The paper, chiefly deals in the light of the principle of constructing ruralized cities, with the city construction planning and development of city planning made in the past by individual local cities, going far to the description of changes of idea in planning of a comprehensive city of vast area, fundamental investigations of the industrial area to be involved within the sphere of such extensive city and activities now being made by the local agencies concerned in planning such an extraordinary large city that covers seven cities including Toyama and Takaoka.

HYDROGRAPHIC SURVEYS IN HARBOUR
BY K. SATO, C.E. MEMBER (Page 9)

The present paper deals with all the phases relating to hydrographic surveys in harbour new sentence the author emphasize importance of harbour charts.

ON THE STRESS ANALYSIS OF THE SLAB OF THE CONSTRUCTION WORK OF THE NIKKO RIVER
BY Y. KANDA, C.E. MEMBER, AND
J. TAMURA, C.E. MEMBER (Page 14)

Replacing the differential equation of the plate by the corresponding finite-difference equations by the use of a digital computer, the authors calculate the stresses of the slab.

The present paper is a report on those calculations.

Input data for the computer are the dimensions of slab, boundary conditions and loading conditions, then it produces automatically simultaneous equations in itself and solves them, and output data are moments, shearing forces, etc.

The merit of this process lies in the suitable result that can be obtained with operation of a few times.

SOLUTION OF RIB ARCH BY DISPLACEMENT METHOD
BY H. KOJIMA, C.E. MEMBER, T. YAMAMOTO, C.E. MEMBER
AND DR. ENG., M. NARUOKA, C.E. MEMBER (Page 19)

This paper deals with the application of the fundamental force displacement equations to rib arch.

The mechanical tabulation method for the equilibrium equations at joints of rigid frames with straight members is proposed.

It is similar to those proposed by F. Takabeya for rigid frame and by M. Naruoka for pin-jointed structure, and can be applied to any structure with rigid and pin joints.

If the structure is of curved form, it will be replaced by the analogous framework having straight members.

An example of application to the analysis of fixed rib arch is shown.

Substituted by polygonal form having twelve segments, fixed at both ends, the equilibrium equations were written, and the matrix inversion was calculated by the aid of digital computer.

Finally, the bending moment, normal and shearing forces were calculated.

The result shows that there is a good agreement between the authors' and traditional methods.

FATIGUE TEST OF AUTOMATIC FLAME CUT SPECIMENS
BY J. TAJIMA, C.E. MEMBER (Page 25)

This paper is a report on fatigue test of automatic flame cut specimens under repeated load. Materials of specimens used are 41 kg/mm^2 class steel and 50 kg/mm^2 class steel.

TREND OF STRESS CALCULATION FOR ARCH DAM
BY M. KAKITANI, C.E. MEMBER (Page 29)

The present paper deals with the various method of stress calculation for arch dam, Their peculiarities and the recent trend in the design together with their historical development, Moreover it points out the problems and direction for the future study, giving certain literatures of reference.