## The Canadian Engineer

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## Protection of Owners on Cost-Plus Contracts

Practical Use of Dewey Decimal System in Keeping Books on the Job— Open for Inspection by Owners and Their Engineers and Architects—Distribution of Accounts—Classification of Plant Expense and Field Overhead

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No contractor who values his capital can afford to do without adequate cost records, both as a check on the job in progress and as a basis for future estimating. Yet the simpler that system of accounting, the better, and any refinements further than those necessary to give the actual required data are a waste of time and money. Some contractors keep their books under their hats or in their left-hand pocket of their coats, where all invoices go preparatory to paying. At the opposite extreme are firms who maintain a complicated system of accounts, both at the job and at the home office. Accounting methods sufficient for the lump-sum contract may be insufficient for the cost-plus-fixed-fee contract, under which the owner and his engineers and architects must have access to the accounts at all times.

The following system has been found adequate for costplus jobs, and with only a few changes this is the system put

into effect on such typical work as that which we have done during the last few years for The Robert Simpson Co., Ltd., Toronto, and for the William Davies Co., Ltd., Toronto.

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an owner who prefers to be given such data as will permit his own accountants to keep a complete system of books. Generally however, our accounts, kept on the job and open at all times for inspection, are considered sufficient, in view of the detail statements we render to the owner every two weeks, bearing the approval of the owner's representative, who is designated for that purpose. We urge owners to have their auditors frequently make examinations of accounts for their own satisfaction.

The system we are now using is briefly the keeping of:—
(1)—Cashbook, voucher record and ledger, combined; (2)—
Invoice and payroll register, combined; (3)—Detail cost record; and (4)—Accounts payable record (vendors' accounts)

The cashbook, voucher record and ledger is used for the recording of all cash received, cash disbursed by voucher and all journal entries.

The invoice and payroll register is used for the recording of all invoices and payrolls. The invoices and payrolls are numbered consecutively. This register has columns for date, invoice number, vendor's name, total amounts (both debit and credit) and individual columns for the 20 main accounts used in distribution of costs. The register represents an absolute detail control of all approved charges to the job, as only audited and approved items are given a register

number or entered. The payrolls are given register numbers and approved the same as invoices. The office copies of all invoices are filed in numerical order in an ordinary letter file drawer, and bound in numerical order, in lots of 50 to 100, using an ordinary heavy file folder for cover, clamping the invoice to the folder.

The detail cost record is used for recording in detail the distribution of costs among the main accounts as shown on invoice register.

The accounts payable (or vendors' accounts) record is used for the recording of all invoices from vendors. After the invoices have been entered in the invoice register and detail cost record book, they are entered as a credit to vendor in accounts payable. Each vendor has a separate page or sheet. After entry is made, it is placed in file under vendor's name until ready for payment. When payment is

'made, same is vouchered and charged to accounts payable (vendors' account) and cash credited.

Issuance of purchase or der (in quadruplicate).—The original of order is sent to vendor, the duplicate is

filed numerically (which forms order register), triplicate is filed in open order file (vendor's name order), and quadruplicate (which forms material receipt or tally sheet) is filed by the office material clerk awaiting receipt of material.

Receipt of material.—Upon receipt of materials, the office material clerk checks and signs the material receipt portion of the order and files completely with supporting delivery tickets, etc., awaiting invoices.

Checking and auditing invoices.—Invoice upon receipt is checked against material receipt or tally sheet for receipt of material. Extensions, prices and footings are checked and certified. Cost distribution is checked and entered. Invoice is then audited for discount and cost distribution and certified. Invoice then passes to the superintendent for his approval and the approval of the owner's representative.

Entry of approved invoices in invoice register and vendor's account.—Upon return of approved invoice from the superintendent, the bookkeeper gives the invoice numerical register number and enters in the invoice register. Only fully approved invoices are given register number. Invoice is then posted to the credit of the vendor in accounts payable account and are charged in the detail cost record.

Journalizing accumulated totals of invoices registered to ledger.—Accumulated totals in the invoice register are journalized in the ledger (which is also the voucher record)