

at daily, weekly or semi-monthly periods as is found practical.

Voucher check.—We have found the voucher check system to be the most convenient. The voucher is made in quadruplicate at the construction office on the job and the approval of the owner's representative is often indicated on all copies of the voucher. The check, or original voucher goes to the vendor, the duplicate to our general office for our records, the triplicate is kept as the job record and the quadruplicate is the "owner's copy," which is forwarded to the vendor with original to be receipted by him and returned. At intervals we furnish the owner with statement showing vouchers paid and receipted vouchers attached.

Since the major purpose of cost accounting is to give an adequate basis for future estimating, it is important that so far as practicable the form of cost accounting shall follow the form of estimate. This is not practicable to the last subdivision of each of the general accounts, but sufficient to permit intelligent use of all cost figures. With such figures it is possible to compare not only final costs, but costs at any stage of the job, with the original estimated cost for that portion of the contract. We frequently divide our estimate by floors, in the case of a many-storied building, in order to have a check upon quantities and upon expenditure at several stages of the work.

Distribution of Accounts

We use the decimal system of classification of accounts. The classifications number 100 to 600 inclusive and 900 are for our general books, which embrace the assets and liabilities, revenues and income accounts (we will omit these in our discussion). The general distribution is under the following headings:—

710 Excavation	810 Field overhead
720 Caissons	820 Extra work
730 Footings	830 Subcontracts
740 Trench and wall	840 (Subcontract) extra work
750 Concrete and fireproofing	
760 Masonry	850
770 Carpentry	860
780	870 Repair contracts
790	880
800 Plant expense	890 Company expense (not chargeable to owner)

The sub-divisions of headings 710-790 are between the items labor (1), material (2), and liability insurance (3). Thus labor in excavation would be 711, material in excavation 712 and liability insurance in excavation 713. A further division of the various kinds of labor and materials is made. The following classifications illustrate this point:—

Labor—711	Material—712
711.01 Digging (general)	712.01 Lumber
711.02 Digging sub-basement	712.02 Underpinning adjacent buildings
711.03 Sheeting and bracing banks	712.03 Rings (steel)
711.04 Shoring adjacent buildings	712.04 Cement

For convenience we have listed the charges of labor and material in the order they usually appear in building construction costs:—

Labor	Material
.01 Digging (general)	.01 Lumber
.02 Digging sub-basement	.02 Underpinning adjacent buildings
.03 Sheeting and bracing banks	.03 Rings (steel)
.04 Shoring adjacent buildings	.04 Cement
.05 Underpinning adjacent buildings	.05 Sand
.06 Pumping	.06 Stone
.07 Back-filling and grading	.07 Brick
.08 Cutting old footings	.08 Wall tie and inserts
.09	.09 Steel (structural)
.10 Placing lagging and rings	.10 Steel (reinforcing)
.11 Ventilating	.11 Nails and wire
.12 Mixing and placing concrete	.12 Clamps, purchased or rented
	.13 Tile
	.14 Protection (lumber, etc.)

.13 Building forms general	.15 Terra cotta
.14 Building forms exterior columns	.16 Granite
.15 Building forms interior columns	.25 Frames and sash
.16 Building forms spandrels	.30 Interior trim
.23 Lay brick	.35 Coping
.26 Bend steel	
.35 Set cut stone	
.44 Fit and hang doors	
.56 Unload and handle material, etc.	
.60 Clean up rubbish	
Add as many new accounts as are needed.	

Should charges be made in connection with concrete and fireproofing under subdivision 750, they would follow the same order as in excavation:—

751.12 (Labor) mixing and placing concrete
752.04 (Material) cement
753 Liability insurance

Or, carpentry, sub-division 770:—

771.44 (Labor) fit and hang doors
772.25 (Material) frames and sash
773 Liability insurance

Classification of Plant Expense

Sub-division 800 covers plant expense and conforms with the sub-classification of the 700 accounts as much as practicable. The following are the headings under 800:—

801 Excavation	806 Masonry
802 Caissons	807
803 Footings	808
804 Sawmill	809 General (items charged to general equipment)
805 Concrete and fireproofing	

A further typical subdivision of the accounts under this heading is:—

801 Excavation	801.3 Equipment on charge and credit basis
801.1 Transportation (of equipment plant)	801.31 Labor
801.2 Erection of equipment	801.32 Material
801.21 Labor	801.4 Rental of equipment
801.22 Material	801.5 Fuel, lubricants and power
	801.6 Repairs

Should charges to plant in connection with concrete and fireproofing be made, they would be charged as 805 with divisions shown above.

Field Overhead

811—Salaries, general labor and expense	812—Engineering expenses
811.1 Superintendent and engineers	812.1 Plans, detail and engineering supplies
.2 Office employees	.2 Photographs
.3 Material men and time-keepers	.3 Engineering service
.4 Laying out building	.4 Architects' fees
.5 Watchman	
.6 Waterboys	
.7 Toolmen	
.8 Liability insurance, superintendent and watchman	
.9 Travelling expenses, superintendent, engineers, and office men	
813—Office expense	
813.1 Rent, light and heat	.6 Rent on adding machine and typewriters
.2 Stationery and printing	.7 Furniture
.3 Telephone	.8
.4 Telegraph	.9 Miscellaneous office expense, towels, etc.
.5 Postage and express	