FIGURE 2-1
Flowcharting Symbols for Manual Systems

Document — paper documents and reports of all types. *Examples:* sales invoice, receiving report, time card/time report.

Manual Operation or Process — the performance by a human of any processing function which causes a change in value, form, or location of information. *Example:* sales invoice prepared by clerk.

Terminator — beginning, ending, or interruption of flowchart; used to indicate information entering or leaving system. *Example:* receipt of order from customer.

Off-line Storage — off-line storage of documents and records. *Example:* a duplicate sales invoice is filed in numerical order (typically N-numerical, A-alphabetical, C-chronological, T-temporary).

Journal/Ledger Symbol — recording of processed information in journals or posting to ledgers. *Example:* entry in sales journal.

Decision — used to indicate a decision requiring different actions for a yes or no answer. *Example:* Is customer credit satisfactory?

Annotation — the addition of descriptive comments or explanatory notes as clarification. *Example:* a billing clerk checks credit before preparing an invoice.

On-page Connector — exit to, or entry from, another part of flowchart on <u>same page</u>; keyed by using numbers. *Example:* a document transfer from one department to another.

Off-page Connector — exit to, or entry from, another part of flowchart on <u>different page</u>; keyed by using page numbers and key letters. *Example:* flowchart logic jumps to page four (4), key letter B.

Flowlines
Direction of processing or data flow. A solid line indicates a document flow; a dotted line indicates an information flow.
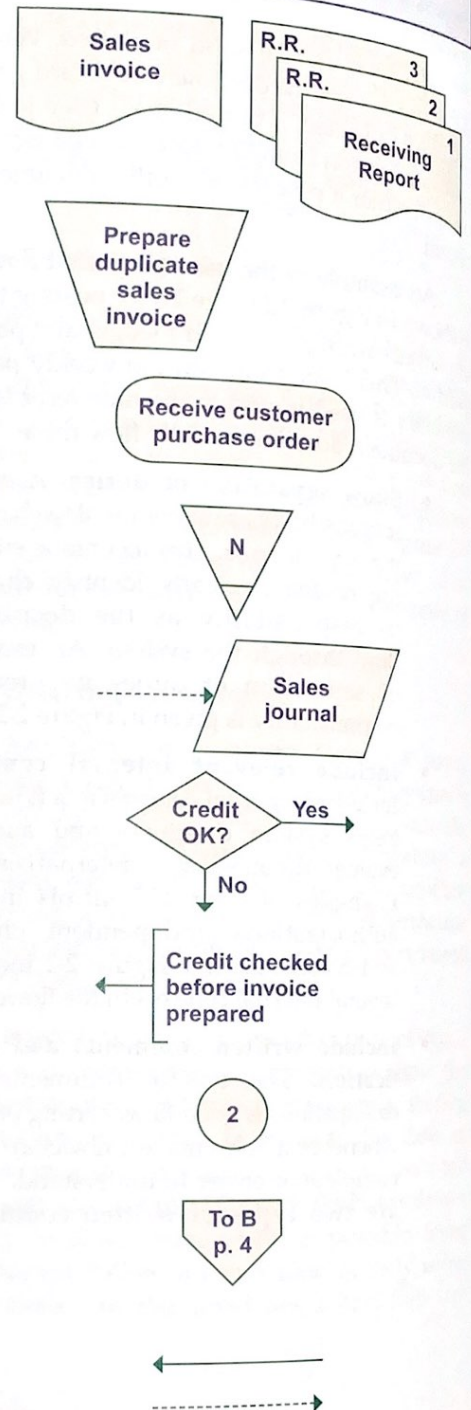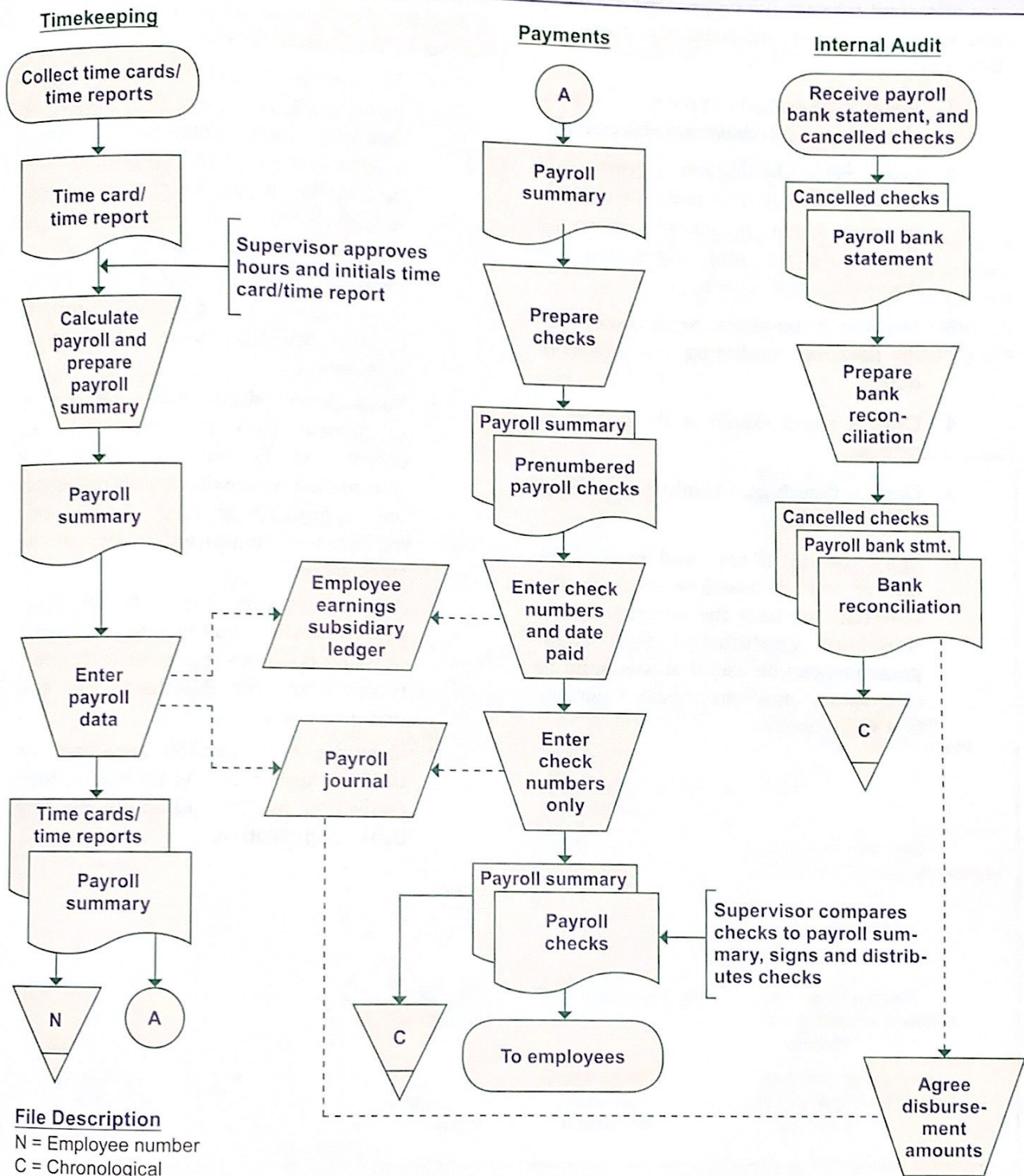
Sales invoice

R.R. 3
R.R. 2
Receiving Report 1

Prepare duplicate sales invoice

Receive customer purchase order

N

Sales journal

Credit OK? Yes No

Credit checked before invoice prepared

2

To B p. 4

FIGURE 2-2
Flowchart Illustrating Separation of Duties and
Internal Controls (Payroll Transactions Cycle)

Timekeeping

Collect time cards/ time reports

Time card/ time report

Supervisor approves hours and initials time card/time report

Calculate payroll and prepare payroll summary

Payroll summary

Enter payroll data

Time cards/ time reports

Payroll summary

N

A

File Description
N = Employee number
C = Chronological

Payments

A

Payroll summary

Prepare checks

Payroll summary
Prenumbered payroll checks

Enter check numbers and date paid

Enter check numbers only

Employee earnings subsidiary ledger

Payroll journal

Payroll summary
Payroll checks

C

To employees

Supervisor compares checks to payroll summary, signs and distributes checks

Internal Audit

Receive payroll bank statement, and cancelled checks

Cancelled checks
Payroll bank statement

Prepare bank reconciliation

Cancelled checks
Payroll bank stmt.
Bank reconciliation

C

Agree disbursement amounts

Overall Approach

Following the flowcharting techniques described previously should yield readable, complete, and relevant flowcharts. The following are steps ordinarily followed in preparing flowcharts:

1. Identify the system or process to be flow-charted (e.g., purchasing, sales, payroll).

2. Learn what documents, records, and activities are in the system by inter-viewing client personnel, observing their activities, and examining the documents and records.

3. Develop a tentative organization for the flowchart, including segregation of duties.

4. Draw a rough sketch of the system or process.

5. Draw a flowchart, including comments and annotations.

6. Trace the documents and records for one or two transactions through the flowchart to check the accuracy of the flowchart. Consultation with client personnel can be useful at this point to clear up any questions or inconsistencies that you identify.

Summary

Flowcharts provide a graphical way to show a company's documents and records and their sequential flow, including internal controls. The following observations about the flowchart in Figure 2-2 summarize the chapter.

- The flowchart shows the three depart-ments involved in payroll. Notice, for example, that Timekeeping makes entries in the payroll journal and posts information to the employee earnings subsidiary ledger, but does not enter the check number or date paid.

- Every document can be traced to where it was received or prepared. Similarly each document can be traced to its disposition.

- Solid lines show how documents or records were prepared, filed, or distributed. Dotted lines show that information on the documents or records was examined or used. Annotations explain what happened in two of the steps shown.

- An on-page connector between Time-keeping and Payments is used to avoid drawing flowlines that cross each other, which keeps the flowchart clear and understandable.

- Several internal controls are shown on the flowchart, including approval of time cards/time reports and an independent bank reconciliation.