CHECK - OUT OPERATIONS IN A SUPERMARKET

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Joseph Emile Zola, Jr.

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CHECK-OUT OPERATIONS IN A SUPERMARKET

by

Joseph Emile Zola, Jr.

AN ABSTRACT

Submitted to the College of Business and Public Service of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

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ABSTRACT

Profit and efficiency are important goals of management. Management continually strives to increase profits through efficiency. The remainder after costs and expenses have been deducted from earnings is called profit; and efficiency is doing the right thing, in the right place, at the right time, by the right person.

Chain supermarkets operate on a net profit on sales of about one per cent. Therefore, each supermarket in the chain must keep unnecessary expenses and losses at a minimum. Since the cashier is the employee responsible for tabulating orders, collecting money, and making change (if necessary), she is in a position that contributes greatly in influencing whether or not there will be a profit in the supermarket. Preventative steps should be taken to avoid losses. These preventative steps should include an attempt to increase accuracy, efficiency, and speed, by having qualified checkers, properly trained, with the most suitable equipment.

A qualified checker is one who has been trained in company methods and policies. Management should develop methods of checking which increase the accuracy and speed of a cashier. Cashiers should be instructed on the proper methods of handling the cash register, correct fingering, coordination, change making, check cashing, customer service, personal appearance, courtesy, complaint handling, refund handling, and balancing-out the cash register. Company

policy outlines the procedure to be followed in the performance of the various parts of the check-out operation.

The cashier is the last, and usually the only employee with whom the customer comes into contact during the shopping process. Thus, the cashier contributes to the acquisition of a good or bad name by the store, because, in the customer's mind the checker is the company. Therefore, accuracy, personality, and speed are needed by the cashier so the goals of the best customer service and higher profits for management are obtained.

The bagger and/or carry-out boy is an important assistant to the checker. The bagger's job is to assist the customer and the cashier in every way possible at the check-out stand. Unloading bascarts, sacking the merchandise and placing it in the customers car, keeping the check-out area clean, assisting the cashier by checking on prices and serving the customer, are some of the tasks that must be performed by the bagger. Having a sacker perform these jobs right is as necessary to the goals of management as the job of the checker, since the bagger and the checker compose the human element at the check-out counter, and in most cases, throughout the entire market.

Management should insure that suitable checkstands are used to assist the cashier in maintaining a high degree of accuracy and speed. The checkstand selected for a supermarket should meet the requirements of the store in design,

accessibility, and size. The check-out counter used should make the cashier's work easier, quicker, and more accurate. Management must choose the checkstand that suits its particular type of operation. When this is done, the customer and the cashier become satisfied with speed and service which leads to higher profits through goodwill and morale.

When the proper cash register, which performs the functions desired by management, is obtained, the final piece of equipment has been added to complete the check-out operation. Management has a choice of a regular adding machine cash register, a change computer, or a refund subtraction model. Since the register is a machine that is both accurate and fast, the needs and wants of both management and the customer are served. Although the accuracy and speed of the cash register are limited to that of the operator, the register can, in most cases, out-perform any person in the various checking transactions. Since there is no question as to the accuracy and speed of the cash register, the decision by management which remains is choosing the make and model which best conforms to the wishes of the customer.

There is no profit without customers, thus the customer must be properly served since she is the important person in a supermarket. Therefore, qualified checkers, properly trained, with the most suitable equipment are extremely necessary for the proper functioning of the check-out operations in a supermarket.

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To Dad

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CHAPTER I

THE PROBLEM

Definition of Terms

In order that a business may grow and prosper, profit and efficiency are essential. Training programs are necessary to teach employees the best methods of performing the jobs so that they (the employees) may be better equipped to serve the customers. Policies must be established and made known to employees in order that the company's plan of action is followed. A wholesome attitude must be developed in the employees by management.

The above statements may mean many different things to various types of people and businesses. In order that the reader may understand the author's concepts, the principal terms are defined as follows:

PROFITS - 1. The residual values which remain after costs have been deducted from income. 2. A necessary cost factor needed to keep a business operating and growing.[1]

EFFICIENCY - Performance of the right thing, at the right time, in the right place, by the right person: A principal aim of management planning. Right is interpreted to mean 'correct' or 'most suitable.'[2]

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[1]A. E. Benn, The Management Dictionary (New York: Exposition Press, 1952), p. 267.

[2]Ibid., p. 115.

TRAIN - To indoctrinate with knowledge of the performance of a job or an action, and to follow up original instruction to establish whether or not the individual being trained really understands that which he is being taught.[3]

TRAINEE - A worker receiving regular formal training for an occupation requiring a limited degree of skill: differs from 'learner,' who does not get formal training and who learns through actual work experience and job performance under supervision, and from 'apprentice', who learns a skilled trade.[4]

TRAINING - 1. Education applied to give or acquire ability to exercise a specific skill: a less broad term than the concept denoted by education.
2. The process through which changes are brought about in the improvement of attitudes, potential behavior patterns, etc.[5]

POLICIES - Statement of aims, goals, principles, purposes, or intentions which commit management to a course of action in accomplishing specified objectives; policies are not to be confused with rules and regulations, for they change more slowly.[6]

EMPLOYEE - Each and every person, on every level, who is employed in the work of the organization.[7]

The terms checker and cashier are used synonymously.

A "supermarket" is defined as a large, self-service market, operated by a chain.

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[3] Ibid., p. 335.

[4] Ibid., p. 335.

[5] Ibid., p. 336.

[6] Ibid., p. 257.

[7] Ibid., p. 119.

Introduction

Profit and efficiency are the goals of most top executives including those in food retailing organizations. The ideal situation sought is higher net profits and greater efficiency. Three factors are necessary for the attainment of these goals; (1) qualified personnel, (2) suitable equipment, and (3) proper training. The questions then arise--What is the proper training program and the most suitable equipment? Who are the qualified people? When are these three things obtained? The answers to these three questions can be found in each particular organization. Personnel, equipment, and training must be tailor-made to fit the individual requiements of the employer.

The buying operations in supermarkets are usually the same. The customer enters the store through a self-opening door and takes a bascart to carry the purchases. Moving throughout the store the customer does not come into personal contact with a clerk unless there is a particular question that must be answered. The merchandise is displayed in the supermarket so that the customer may serve herself with whatever is desired. Except for the manager who might stop and talk, a clerk does not usually speak to the customer throughout the process of shopping.

After everything that is needed is obtained, the customer proceeds to the check-out counter and either stands in line or is immediately checked out. At the

check-out stand the customer, for the first time, comes into personal contact with an employee for any length of time.

At this final stage of the shopping process, the first and final impression of the entire operation is made upon the customer. Every act of the checker is recorded in the mind of the buyer. If the checker is pleasant--so is the market, if she makes mistakes--so does the store, if she says "Thank you"--so does the organization, if she is slow--so is the management, if she is rude--so are all the personnel, and so on. Every move of the checker is interpreted by the customers as a move of the organization. Therefore, the right checker with the proper equipment and training is necessary in order that the customer receives a favorable picture of the operation.

> From a customer's standpoint, the checker is probably the most important of all store personnel. With the advent of self-service meats and prepackaged produce, the checker may be the only person she talks to during her entire shopping tour. In her mind the attitude of the personnel at the checkout reflects the store's attitude. A friendly greeting or a warm smile on the checker's part can certainly confirm her belief in shopping in your store.[8]

In order to obtain high profits efficiently, the customers who already shop in the supermarket must be retained. An accurate check-out system with the proper equipment to give the quickest service with the least amount of expense is also essential in order to maintain high net profits.

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[8] "Planning Your Work at the Checkout," Progressive Grocer, vol. 34, no. 12 (December, 1955), 73.

Purpose of Study

The purpose of this study is to suggest ways of improving checker training programs and check-out equipment.

One way that management's goals of profit and efficiency can be acquired is through proper customer and clerk relationships. The cashier must treat the customer in a pleasing manner. Any act that may dissatisfy a customer must not be tolerated, for this can contribute greatly to the losing of customers. By having a great loss of customers, the store is placed in an unsteady market, which is dangerous considering the fact that the trend of the food industry since 1944 has shown an increase in sales with no decrease in sight.[9] If a store places itself in an unsteady market, a position has been gained which is not in line with the food industry. The supermarket is thus "walking on weak legs."

Without the customer there can be no profit--efficiency is useless. Therefore, keeping present customers is essential to the life of the business and new customers should also be sought.

The qualified person, properly trained, using the most suitable equipment is necessary so that the customer receives a favorable impression of the supermarket. A properly trained person with the right equipment is needed

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[9]Editors of Fortune, The Changing American Market (Garden City, New York: Hanover House, 1955), p. 147.

so that both the customer and the market will get what is due to them in dollars and cents. If the customer is short-changed, she may never come back to the store again. Too much change given to a customer will be the cause of losing money, and over a period of time, the supermarket will be exposed to great losses.

A food chain operates on a net profit of about one per cent on net sales. Thus, if a customer purchases five dollars worth of merchandise and recives five cents too much change, the chain does not make a net profit on that sale. If this situation happens frequently, the chain reaches a point where net profits are likely to decrease. If net profits decrease, then the goals of management are not obtained, stockholders are unhappy because of the low return on investments, and money for future expansion and improvements is lost. Thus, the supermarket is placed in an undesirable position.

Sphere of Study

This study is broken down into three main divisions:

1. A discussion on checker training, which includes the importance of this training, several companies' checker training programs, and some suggestions for improvements to training programs.

2. A discussion on the various types of check-out stands and their importance--also, some suggestions for improvements to checkstands.

3. A discussion on the most used cash registers.

Included in the study will also be an informal training program for baggers.

The author feels that the best study on check-out operations in a supermarket would include all phases of the operation. For this reason, checker training, bagger training, check-out counters, and cash registers have been included in this study.

CHAPTER II

TRAINING THE SUPERMARKET CHECKER

> Through training, employees are fitted more quickly for their jobs and are given the tools they need to do their jobs well. Training is the lubrication that reduces wear and tear in an organization and helps the business run more smoothly.[10]

The check-out operation is one of the very important functions in a supermarket. Every sale is completed at the checkstand, and at this point the customer receives her final and most-lasting impression of the supermarket. Therefore, a great deal of added responsibility is placed upon the checkers because of the importance of successful customer contact in a supermarket. The checker must be of such caliber that a lasting impression is made upon the customer that this is the store at which to buy, because the personnel is accurate, the market gives fast service and is a pleasant place in which to shop.

> Accuracy - Personality - Speed, these are the prerequisites for a really good checker. Speed is important in getting the customer through the checkout in the minimum amount of time. A pleasant personality is important because it is at the checkout that the customer will form a lasting impression on the store and its personnel. But, most vital of all is the ability of a checker to be accurate. Nothing loses a customer's confidence in a store faster than the discovery of an error against her. Even a mistake

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[10] O. Preston Robinson and Kenneth B. Haas, How to Establish and Operate a Retail Store (New York: Prentice-Hall, 1946), p. 234.

> in her favor tends to shake confidence, since the customer feels that if mistakes are made, then they can be made in either direction.[11]

The average number of items in a supermarket ranges between 3,000 and 6,000, with some markets handling more. There are countless new and different items sold in a supermarket. The variety of articles that can be purchased and the speed with which the customer can get her shopping done in today's supermarkets are far superior to the markets of "yesterday." The merchandise is displayed in such a manner that the customer can "pick and choose" to suit her taste. Items are easily accessible, prices are standard, and in most cases good merchandise is sold. The supermarkets attempt to utilize good locations, attractive stores, and effective advertising to bring customers to the market. Good merchandise, effective displays, and the right prices are used to keep old as well as new patrons coming back to the supermarket. The above mentioned "lures" are useless if the check-out operation is not run in a manner that is accurate and fast.

> Good merchandise, priced right, and effectively displayed, persuades her (the customer) to buy. But one mistake at the cash register can ruin every effort that you have made.
>
> Customers can be found in many ways but the easiest place to lose one is at the cash register.[12]

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[11] "Tips on How to Handle Money at the Checkout," Progressive Grocer, vol. 35, no. 2 (February, 1956) 202.

[12] "The PayoffPoint--Managers' Training Course Session 1," Chain Store Age, vol. 29, no. 9 (September, 1953), insert between 106-107.

Need for Training

A system that will assure accuracy and speed at the checkstand is necessary. A method should be created so that both the customer and the company will have the utmost confidence in the ability of the checker. The system must be designed to fit the needs of the organization it will serve. To believe there can be one type of system that will serve the purposes of all companies is a fallacy. All men are different. Companies are composed of men. Therefore, companies are different. The goals of companies may be identical, but the means of arriving at these goals are not the same because of the difference in individuals and their ideas. Therefore, what may be a good system in one organization is not always the best in another.

Once a loss-preventing system has been developed, proper use is essential. In order that the system may be properly used, some sort of training program is necessary. The training program can be formal or informal, depending upon the importance of the job in the eyes of the executives. Regardless of which method of teaching the job is used, the employees should learn a system whereby the customers and the company are better served. Because of the importance of this training program, it should become company policy. The author has found in corresponding with many chains that checker-training procedures are company policy. If the chains feel that checker training is important enough to

make company policy, then there must be an extreme need for this type of training. Therefore, potential checkers should complete this course of training.

Prerequisites of Checker Training

In order to establish a training program there must be a "plan of action." The following points may be included in such a plan:[13]

A. Have a time table.
   1. How much skill is expected of the trainees.
   2. How soon.

B. Break down the job.
   1. List principal steps.
   2. Pick out the key points.

C. Have everything ready.
   1. The right tools and equipment.
   2. Materials and information.

D. Have the work place properly arranged.
   1. Everything in its proper place.
   2. Set up as the worker will be expected to keep it.

Before teaching traininees the company's methods, there are certain steps that should be followed by the training instructor. These steps are:[14]

I. Prepare the workers.
   (1) Put them at ease.
   (2) Find out what they already know about the job.
   (3) Get them interested in learning the job.
   (4) Place them in correct positions.

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[13] Training Department, American Stores Company, Philadelphia, Pennsylvania.

[14] Ibid.

II. Present the operation.

(1) Tell, show, illustrate and question carefully and patiently.
(2) Stress key points.
(3) Instruct clearly and completely.
(4) Taking up one point at a time, but no more than they can master.

III. Try out performance.
(1) Test them by having them perform the job.
(2) Have them tell and show the instructor, have them explain key points.
(3) Ask questions and prevent errors.
(4) Continue until it is known that the employees know.

IV. Follow-up.
(1) Put them on their own, check frequently.
(2) Designate to whom they go for help, encourage questions.
(3) Get them to look for key points as they progress.
(4) Taper off extra coaching and close follow-up.

Since the actual difference among companies regarding their training programs comes about in the contents of the programs, the prerequisites stressed by American Stores Company can be used as a model by any chain, regardless of the field of operation. This "plan of action" relates to the end result expected, which is the same in most companies--higher profits through better trained personnel.

Training Program of American Stores Company, Philadelphia

In the summer of 1944, the management of American Stores Company decided to do something about the accuracy of the checkers. The customers, as was generally known, doubted the accuracy of the checkers. For American Stores, the time had now come to do something about this doubt. In 1945, after a checker training program had been put into

effect, the personnel training director placed an article in Chain Store Age about American Stores' simplified teaching method which develops competent checkers. The following is a brief summary of this article.

> How accurate are checkers? For years customers and management alike have debated this question. 'Of course, they never hit it exactly right, but come as close as possible,' one of our customers was heard to remark one day.
>
> Last summer, to settle this vital question, we began to search for a better way of checking out merchandise--a system that would prevent loss either to our patrons or to ourselves. Under the guidance of a specialist in training, a staff of workers was assembled whose job it became to explore all known methods of checking.[15]

Mr. W. C. Ferguson, Director of Personnel Training, American Stores Company, further stated that check-out procedures at that time were inadequate because of inaccuracy and inconsistency. The previous method of ringing merchandise was to check out of the bascarts. The decision was made by management to assemble the order according to departments and combination-priced items. In order to facilitate the arrangement of goods, a new checkstand was designed which would take up the same amount of floor space but give sixty per cent more counter area.

The purpose of the training program was to teach the employees how to use both hands at the same time, thus creating a quicker and more accurate operation. The training

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[15] William Carlisle Ferguson, "Training Checkers for Accuracy," Chain Store Age, vol. 21, no. 7 (July, 1945), 178.

program is a three day course with slower students retained an extra day if necessary. During the three day session the trainees are instructed on handling the cash register, correct fingering, coordination, change making, sacking, handling refunds and cash for deposit, mechanics of the cash register, proper procedure in check cashing, customer service, personal appearance, courtesy, and complaint handling. The actual beginning of American Stores' checker training program was in 1944. Few changes have been made since then, with several modifications to take care of changing times.

The checker school is attended on the first three days of the week so that the trainees may be available for work in the stores on the weekend. American Stores pays full salary while the employee is in training. Expenses are paid if the employee lives an excessive distance from the training school.

American Stores Company checker training schedule is as follows:[16]

MONDAY

1. Introduction - answering the questions "Why, When, and How?" about the checker training program.
2. Introduction to Register.
3. Introduction on 1-4 Keys.
4. Practice 1-4 Keys, Addition Drill.
5. Instruction on 5-9 Keys.
6. Practice 5-9 Keys, Group Prices.

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[16]American Stores Company, op. cit.

7. Exercise 3 & 4 (tests), Group Price Sheets.
8. Instruction on Assembly.
9. Assembly Practice.
10. Instruction on Ringing.
11. Ringing Practice.
12. Instruction on Making Change.
13. Making Change Practice - Change Exercise.
14. Coupon Discussion.
15. Instruction on Sacking.
16. Sacking Practice.

TUESDAY

1. Review of First Day (Review at register with order).
2. Instruction on Complete Checking Operation.
3. Complete Checking Operation Practice, 50-50 exercise.
4. Instruction on Refunds.
5. Refund Practice.
6. Bottle Rebates.
7. Practice Runs - 7 to 12 Orders - (Accuracy).
8. Instruction, Checker-Bagger Team.
9. Practice, Checker-Bagger Team.
10. Checks and Credits.

WEDNESDAY

1. Instruction on Mechanics of the Register.
2. Instruction on Manual Register Operation - Practice of Manual Operation.
3. Instruction unloader-Checker-Bagger Team. Practice, Unloader-Checker-Bagger Team.
4. Instruction on Cash Disbursement. Practice Cash Disbursement.
5. Practice Single Operator, 7 to 12 Orders.
6. Final Runs - 1 to 6 Orders.
7. Service to Customers.
8. Discuss Score Sheets.

American Stores has a follow-up method whereby the trainers visit each store to see if checking principles are being followed after students are trained. When there is a misunderstanding, the trainer demonstrates the proper method and is always ready with advice. Accuracy tests are also run to make sure that students are maintaining their school accuracy.

In order that the reader may have some idea of the contents of a checker training program of a large chain, the author will break down part of the preceding outline to show the exact contents of the American Stores Company training schedule for the first day. (See appendix for the outline which the training instructors use.)

Tuesday's session follows a similar pattern. The items discussed are the same as those mentioned earlier in this chapter (listed under schedule for Tuesday). Some of the more important points taken up on the second day of training are the handling of "over-rings," "under-rings," returned merchandise, checks and credits.

Wednesday's session includes changing of the register tapes and detail rolls, and the changing of dates and numbers on the register tapes; handling cash receipts, cash pay-outs, cash deposited with manager, and "balancing-out" the cash register; services to the customers such as personal appearance, courtesy, and customer complaints.

Training Schedule of Standard-Humpty Dumpty

Standard-Humpty Dumpty Super Markets of Oklahoma City, Oklahoma, schedules their checker training program for four days. The course is operated on the same basis as the American Scores Company--during the first part of the week, with pay. Their checker training program consists of:[17]

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[17]Training Department, Standard-Humpty Dumpty, Oklahoma City, Oklahoma.

FIRST DAY

1. Introduction - Purpose of the course - Orientation.
2. Brief discussion of Company Policy. Private label merchandise.
3. Importance of good personality, character and personal appearance.
4. What it means to be bonded. Fill out Bond Application Form.
5. Use of the cash register--Tell - Show--then let trainee practice.
6. Continue use of the cash register.
7. Checkstand Procedure- Customer approach - Importance of departmental keys - Film on handling a customer.

SECOND DAY

1. Importance of accurate weighing. Acutal practice on scales and register.
2. Arithmetic test - Emphasis on fractional parts of a dozen and multiple pricing in terms of pounds.
3. Film on short change artists - Discussion on how to prevent.
4. More practice on register.
5. Pilferage - Film.
6. More practice on register.

THIRD DAY

1. Forms used and received in the checkstand. Thorough discussion on how to handle each.
2. Fundamentals of stocking.
3. Importance of checkstand selling - Film.
4. Fire fighting equipment and prevention.
5. Film on lifting and discussion.
6. More practice on register using money.
7. Question and answer period.

FOURTH DAY

1. To be spent in retail store, on the job training under supervision of instructor.
2. One half of the group will work in checkstand while the other half works in stocking. Each with an experienced stocker.
3. After lunch, trainees who stocked during the morning will check in the afternoon and vice versa.

The management of Standard-Humpty Dumpty adopted a checker training program for four reasons. Management feels that this type of training; (1) enables the new employee to do a better job immediately; (2) reduces the possibility of stock losses due to undercharges; (3) helps the new employee to fit into the company quickly by accquainting him with company policies and procedures; and (4) gives a sense of mastery over the job through experience.

The procedure used in the instruction of trainees in Standard-Humpty Dumpty is relatively the same as the one used by American Stores. The listing of this schedule of training is for the purpose of showing the reader a schedule of training for more than one company so he (the reader) may have an understanding of the training programs of several chains.

Training Suggestions of National Cash Register Company

The country's leading producer of cash registers, the National Cash Register Company of Dayton, Ohio, distributes instructions on the use of its registers. The instructions are designed to aid the individual owners, companies, and/or chains in their checker training programs.

The rules, regulations, and policies which management considers important to the success of the business are stressed by the National Cash Register Company. Important items to be stressed are:

Work hours - lunch periods, rest periods, etc.
Dress, conversation, etc., while working.
Explanation of duties.

Store merchandise promotions.
Employee purchases.
Personal grievances.
And other policies characteristic of the store in which you work.[18]

National Cash Register Company also stresses the computing and recording of tax, handling refunds, making change, sacking the order, and relief cashiers. Most of their suggestions have to do with the actual operation of the cash register. The register training plan of National Cash Register Company is called the "Touch System." The "Touch System," which consists of six hours of training and practice, is as follows:[19]

Arrangement of Keys by Finger Groups

Only the thumb, the index finger and the second finger are used in the touch system. The thumb operates keys 1, 2, 3, 4, and 10, 20, 30, and 40. The index finger operates keys 50,60, 70, 80, 90. The second finger operates keys 5, 6, 7, 8, 9.

Position of Hand

The hand should be placed on the keys in a relaxes position with the side of the palm on the motor bar. The hand does not leave the motor bar while the keys are being pressed. Nor do the index finger, the second finger, or the thumb leave their home positions when the motor bar is operated.

Home Position Keys

A home position is assigned to each finger used in the touch system. These home position keys are the natural location for the three fingers when the hand

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[18]"Instruction to Checker-Cashiers," National Cash Register Company, Dayton, Ohio.

[19]"'Touch System' of Operation for National Check-Out Registers," National Cash Register Company, Dayton, Ohio.

is placed on the keyboard. The location of all other keys is learned in relation to the three home positions.

The home position for the second finger is the 7 key. From this central location the second finger learns the position of keys 5 and 6 below, and 8 and 9 above.

The home position for the index finger is the 50 key. The finger is moved up one, two, three, or four positions to reach the 60, 70, 80, or 90 keys, respectively.

The home position for the thumb is the 10 key. From this position, it operates the one, two, three, four, and 20, 30, and 40 keys.

Included in the National Cash Register's suggestions are helpful hints for cashiers which show the major reasons some checkers are avoided by customers. The reasons are:[20]

(1) Untidy check stand.
(2) Dirty floor in and around check stand - paper, vegetable tops, bags on floor, etc.
(3) Untidy personal appearance.
(4) Chewing gum or smoking.
(5) Sitting on check stand - placing feet on stand.
(6) Gossip about customers.
(7) Carrying on conversation with customer in adjacent check stand - or another checker.
(8) Impolite remarks about other store employees.
(9) Lack of attention to customer and making replies in undertones.
(10) Flippant greetings such as "Dearie" - "Honey" - "You Again," etc.
(11) Asking customer price changes when in doubt.
(12) Checking poorly marked item without calling price to customer's attention.
(13) Correcting mistakes in checking--2 for--3 for, etc.
(14) Pitching merchandise to sackers when working as a team.
(15) Failure to stop checking to answer customer's inquiry.
(16) Moving four or five items looking at all of them with one glance--and memory-checking each price.
(17) Sight-checking last four, five or six items without moving each item as it is checked.

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[20] "Instructions for Checkers," National Cash Register Company, Dayton, Ohio.

(18) Inability to make change for lack of pennies, nickels, etc.
(19) Register receipt paper runs out before transaction is completely recorded.
(20) Tossing register receipt at customer instead of placing in sack with merchandise.
(21) Lack of willingness to step over and invite customers to use your checking lane when other lanes are overcroweded.
(22) Not being on duty when rush periods occur--taking rest periods when peak traffic is in the store.

These suggestions should be incorporated into the checker training programs, by the instructors, in order to decrease the possibility of any of the above listed incidents happening in the chain's supermarkets.

Recommendations of Author

Some of the more important points that can be incorporated into the checker training programs are:

1. Include in the introduction the main reason the employees are taking the course by explaining how the chains operate on a low net profit, and the price that must be paid if the customer is undercharged.

2. The trainess should be encouraged to voice their opinions constructively about the training program.

3. There should be a question and answer session at the close of each section of the program.

4. Trainees should be encouraged to ask questions or offer objections at any time.

5. New employees should be trained separately. Employees taking refresher courses should be trained at a different time than new students.

6. Trainees should be instructed in the use of all types of cash registers used by the company.

7. The trainees should be instructed in the use of adding machines and calculators. If, in the future, the trainee should become head cashier or store bookkeeper, adding machines and/or calculators will most likely be used in the work. Therefore, some knowledge of the machines is necessary.

8. Instructions should include items of accuracy in totaling the order and change making, customer greeting, combination prices, wrong and illegible prices, giving the customer the cash register receipt, and a cheerful "thank you" and "good-by."

9. Trainees should be instructed on all types of check-out counters used by the chain so as to facilitate the movement of personnel from store to store.

10. Instructions should also include tips on how to keep an adequate supply of change, making change with fewest pieces of money as possible, and the value of keeping the cash drawer closed.

11. Instructions should be given on the value of using the proper size bag (sack) for every order.

12. Instructions should include the proper sacking of merchandise. Good customer relations depend a great deal upon the proper bagging of the purchases.

13. Instruction should emphasize the value of appearance (both personal and physical).

14. Management should also follow the policy that every cashier must take the checker training course. If there is an impossibility of having the desired number of employees take the course, new instructors should be employed. If the backlog is only temporary, then some of the better head cashiers could help out in the training program until the accumulation has been alleviated.

Summary

The food industry is erratic in its ways. To find any two concerns in the industry which will agree on one method of performing some task is extremely difficult. Practically the only things agreed upon are the basic requirements needed to reach a certain end. The differences arise among the companies in the food industry when the means to arriving at the ends of profit and efficiency are placed into effect. Because of these circumstances, the author did not adhere to any specific program throughout this chapter. In presenting these checker training programs, the author has chosen what he considers to be good illustrations as means of arriving at the end sough in the check-out operations.

The checker is an extremely important employee in a supermarket. Through the cashier the store acquires a good or bad name, because, in the customer's mind, the checker is the company. The checker is a very important means through which profits are made or lost in a supermarket.

Therefore, accuracy, personality, and speed are needed by the employee who will operate the cash register. These three necessities are skills that must be acquired and developed. The acquisition of these skills may be had through experience, but the development must come from a more experienced source. This source is the instructor in the company's checker training program. This training program is designed to serve the needs of the customers as well as the company. The program should be tailor-made to best serve the needs of the company for which the checker training course was developed.

A good training program should be well planned before being put into effect. A schedule of operation should be set up and the desired end should be known. The program should take into consideration everything necessary for the proper handling of customers, cash, and equipment. Where the emphasis will be placed depends upon the particular company the program will serve.

Once the program is set up, the decision to be made is; "Who will teach, and where?". The instructors can be selected from the more successful supermarket checkers. Tact, patience, and understanding, on the part of the instructor, so vital in gaining employees' confidence, is developed through experience.[21] The decision to have the program carried on in the supermarket or at a central location must also be made. There are many advantages to each,

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[21]Ferguson, op. cit., 180.

although most of the larger chains perfer a centrally located school.

After the above decisions are made, the employees who will ever be in a position to operate a cash register must be trained. Once trained, the employee does develop accuracy, personality, and speed; and a better all-round person can be detected. The cashier tends to appreciate what has been done for him. Work has been made easier and quicker, and an understanding for the need of the training has been developed. There is a feeling that better things are in the future in the way of promotions because of the extra skill and knowledge acquired. Customers are handled better, the company is served more efficiently. All in all, a training program is a good thing, and a good thing is something that everyone wants.

> When you consider the fact that prior to checker training our net losses on the cash register were averaging over 1%, whereas trained checkers are limiting inaccuracies to less than one-tenth of 1%, you can see the saving in money along. Add increased customer confidence plus improved employee morale and you have summed up the benefits of checker training.[22]

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22 Ibid.

CHAPTER III

BAGGER (SACKING) TRAINING

> At the checkout customers received their final - and often most lasting - impression of the store itself. 'Sacking' a customer's order so that it is evenly balanced and comfortable to carry is an extremely important part of the checkout operation. It must be done with a minimum amount of time and a maximum amount of efficiency.[23]

The check-out process is not completed when the order has been totaled and paid for. Remaining is the important function of bagging the purchases and assisting the customer to the car with the goods.

The operation of bagging consists of the following:

1. Helping the customer place the merchandise on the check-out counter.

2. Arranging each item on the counter so the checker can more easily ring the merchandise on the cash register--this includes departmentalizing, placing items with prices up, and keeping combination prices together.

3. Assisting the checker in every way possible by checking on prices, obtaining case lots for the customer, keeping a supply of bags on hand, and cleaning up around the check-out counters.

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[23] "'Sad Sacking' Means Waste--For You and Your Customers!," Progressive Grocer, vol. 34, no. 11 (November, 1955), 127.

4. Bagging the merchandise.

5. Placing the purchases in the customer's car.

Usually, the new employees receive the job of bagging.

During the early 1930's when the supermarkets were just "babies," at the peak of the depression, many markets tried to eliminate the bagging operation entirely. The customers were asked to bring their own bags, since the market, in order to offer lower prices, stated that sacks could not be furnished. The customer was also asked to pack the order. The supermarkets soon found that the customers were dissatisfied with such a policy. Soon the bags and baggers were back in the supermarkets. Prior to this time, there were still other chains stressing the importance of having an adequate system of sacking.[24] The bagger and/or carry-out boy has become one of the symbols of the supermarket today. Since the business of today's markets is service, the best service should be given. The best service is given when the baggers are properly instructed on the sacking of merchandise.

Importance of Bagging Correctly

Some of the reasons merchandise should be placed properly in the bags at the check-out counters are:

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[24]"Getting It in the Bag--Managers' Training Course* Session 13," Chain Store Age, vol. 30, no. 9 (September, 1954), Insert between 74-75.

1. For safety. A bag that is properly packes will not rip and cause undue hardships upon the store and/or the customer. Any merchandise that is broken in the store is a total loss. Merchandise that is broken in a customer's car is a double loss--a loss for the damage done to the car, especially in the breaking of a bottle of bleach, and the probable loss of a good customer who is extremely difficult to replace.

2. For sanitary reasons. A quarter pound of butter sitting on top of a can of lye, or a cake of cream cheese spressed down on the top of a bottle of bleach is unsanitary because of the poison that can be absorbed by these foods. Many other instances can be sighted which would show a definite danger to one's health, but the main objective is to avoid such cases through correct bagging.

3. For convenience. A large order which is evenly spread over several bags is much easier for the customer to handle than an order that has the heavy articles in one bag, and the light ones in another. By evenly distributing the weight throughout the sacks, the handling and emptying of the bags are greatly facilitated.

4. For efficiency. Bags are expensive and their waste can mean an impairment to profits. Selecting the right size bag is important. If an order is placed in a bag which is too small, the bag will tear and the order will therefore have to be repacked and time is wasted. Using too large a bag continuously can also harm profits.

5. For goodwill. A job well done is appreciated by all, and a customer treated right is the best friend a store can have. This customer will advertise by word of mouth by telling her neighbors about the wonderful service received at the supermarket. Advertising by word of mouth (of a customer) is one of the least expensive and best advertisements any market can have.

6. For speed. Since a great deal of the customer's time spent in a supermarket is at the check-out counters, speed is essential to maintain a steady flow of traffic, thereby eliminating the "bottleneck" at the checkstands.

> We have seen customers wait so long they lose patience, throw their purchases to one side, and stalk out of the store empty-handed . . . all because the Check-Out was hopelessly crowded and slow![25]

Bagging is easier and faster when done right, thus, speed becomes natural with correct sacking. The quicker the customer's order is bagged, the sooner another customer can be checked out.

7. To save customer complaints. When a job is done right and the customer is satisfied, complaints will cease. Complaints lead to "badwill" which is the starting point for failure. By keeping the customers happy, management is satisfied and profits rise.

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[25]Scott Store Advisory Service, "Here is What We Found Out About Check-Out Operations," Check-Out, Scott Paper Company, Chester, Pennsylvania.

The supermarket of today is a service center. The store is designed for the comfort of the customers. More and more merchandise is being added in the non-food lines to make the supermarket a one-stop shopping center, thus contributing greatly to the convenience of the customer. Many other services have been added to make the customer's visit more enjoyable. One of these services is bagging. Since bagging is a service to the customer, the job should be performed correctly.

Correct Method of Bagging

The new employee is usually the person who receives the job of bagging. This employee must be taken aside by someone in authority, probably the assistant manager, and instructed on the importance and methods of correct sacking. The assistant manager should instruct on how the job is done and show the new employee how to do it (the job). The new help should then work with an experienced bagger so the method of sacking may be observed.

In most of the larger chains, the formal training on the bagging of merchandise is conducted in the checker training school for the benefit of the checkers. The training a bagger gets is the informal training during actual experience. Since the job of bagging merchandise in a supermarket is relatively simple, an informal training procedure is sufficient. But, because of the importance of getting the job done accurately, there must be some

explanations and demonstrations on proper bagging for the benefit of those who are to perform the task. Written literature could be used to explain the importance of the job and what is expected of the bagger.

There are three things a bagger should do:

1. Greet the customer with a smile and give courteous service.

2. Be ready to assist customers and checkers when necessary.

3. Be willing and able to help other employees keep the store clean.

The bagger should be instructed on how to bag at top speed and how to adjust his speed to that of the checker so the team operates as a co-ordinated unit. The bagger must also be held responsible for having a sufficient supply of various size bags and for remaining at his post at all times during a peak period unless a replacement can be obtained.

To perform the job correctly, the bagger should:

1. Assist the customer, whenever possible, in unloading the bascart.

2. Be sure that all merchandise has been removed from the bascart--pay particular attention to the bottom of the bascart for merchandise the customer might have missed.

3. Keep prices turned up, combinations together, and items departmentalized when placing them on the checkstand.

4. Obtain any merchandise, at the customer's request, which she (the customer) might have forgotten to purchase.

5. Aid the checker in any problem she might have, such as checking prices, securing change, calling the manager, etc.

6. Select the proper size bag.

7. Open the sack with two hands so the bag stands by itself.

8. Build a solid foundation using canned or glass goods.

9. Place only two rows high of a standard size can in the bags.

10. Place cartoned merchandise and meats in the middle of the sack, on top of the cans. Be careful not to sack too many heavy articles in one bag, such as several five pound boxes. Each bag should be approximately the same weight. This means three medium weight bags instead of two heavy ones.

11. Items such as eggs, bread, and fresh tomatoes should be placed <u>in</u>, rather than on the top of the bag.

12. Bleaches and ammonia are to be placed in a separate bag.

13. Frozen foods and ice cream products are to be placed in insulated bags before sacking.

14. Wet produce is to be placed in smaller bags first so the moisture will not weaken the larger bag.

15. Bleeding meats, such as liver, should be placed in smaller bags, before sacking, so other merchandise will not be soiled because of a leaking package.

16. Butter and cream cheese should be placed in a separate bag since both products readily absorb odors that could cause them to spoil, or which might change their taste.

17. Ask customers to place small crushable items, like yeast, in handbags.

18. Use both hands to bag an order.

19. Check for torn bags before turning sacks over to the customer.

20. Do not sack awkward parcels.

21. Place cash register receipt in every order.

22. Never try to put too much in one bag.

23. Be careful when placing sharp-cornered items into bags to avoid tears.

24. Use small items to fill in the spaces between larger objects.

25. Place all loose produce items into small bags first. Items such as berries must be handled with extra care.

26. Do not attempt to place all of the perishable items in the top of the same bag, or in a bag by themselves.

27. If there is more than one bag, take them to the customer's car.

28. Place merchandise safely in the customer's car. The best place for the order is on the floor behind the front seat leaning against the back seat of the car. In placing merchandise on car seats, due care must be taken so the merchandise will not topple over because of sudden stops.

29. Thank the customer with a smile and ask her to return again soon.

30. Be on the constant lookout for shoplifters and report any incident to the manager immediately.

31. Be neat, clean, and well mannered.

Summary

The bagger, in most cases, is the last person with whom the customer comes into contact. This person must, therefore, make a good impression upon the customer. The bagger must be fast, neat, and polite. As part of the check-out operation the bagger shares the important responsibilities of the checker. The job must be performed right, and to the customer's liking. Thus, the orders must be bagged correctly and the right method must be used. A customer who returns home from the supermarket with her purchase and finds tomatoes on the bottom of the bag, butter next to soap, or blood on the merchandise can become very antagonistic. To stop the antagonism caused by things such as this, the baggers must be instructed on the proper sacking of merchandise. A simple way to lose a customer is to damage merchandise for which full price has been paid.

CHAPTER IV

CHECK-OUT COUNTERS

> Speed is important . . . but speed should not give away your profits. Increased checkout speed without item control also increased the hazard of check-out errors, literally gives away market profits. Each year, millions of dollars of profit slip through the checkstands of markets across the country. During peak periods, when tension mounts and the need for speed becomes more urgent, the possibility of human error just naturally becomes greater.[26]

A checkstand that is "all" speed or "all" accuracy in the check-out operation is not an instrument that is giving management and/or the customers what is desired. In order that these desires may be filled, a checkstand which is both accurate and fast must be designed. A customer is willing to pay for what is purchased and nothing more. Because of low net profits, managements demands that the correct price be charged for merchandise and that the right amount of change be given to the customer. Therefore, both management and the customer are interested in accuracy. On the other hand, the majority of customers do not like to stand in line to be checked out. Management would like the customer checked out as quickly as possible so that impatience on the part of the patrons is held to a minimum. Therefore, management and customers are also interested in speed.

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[26] "Accromatic Checkstands," The Zephyr System, El Monte, California.

Most manufacturers of checkstands, as well as food chains using a certain type of check-out counter, are biased about the particular piece of equipment they manufacture or use. Because of this biased feeling the author will present the material and let the reader make his own decision regarding the merits of each checkstand.

Importance of the Most Suitable Check-out Counter

The check-out stands used by a company are designed to serve the needs of that organization. The requirements of the check-out counter are decided by management. Some of the important basic requirements are: speed, efficiency, accuracy, floor space used, accessibility, and design. Just how much speed will be needed from the checkstand, how accurate it should be, how much floor space will be covered, how easy will the cashier be able to check and bag, and what shape the counter will be, is decided by the managements of the food chains and what they expect from a checkstand.

Recently, the management of American Stores Company, in order to select a checkstand, conducted tests to decide whether the Turntable (Spee-dee), Belt, Pushpull, or the Stationary top (Acme-American Stores') was the most suitable type of counter for their use. The following is a summary of the American Stores Company investigation.[27]

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[27] American Stores Company, op. cit.

VARIABLES WHICH AFFECT CHECK STAND CAPACITY

1. The size of order.
A fifty cent order requires the same amount of time to take a sub-total, total, and make change as a $5.00 order.

2. The composition of the order.
Meats run into dollars much faster than baby foods.

3. The flow of traffic.
The steadier the flow of customers, the fewer delays and the faster the cashier works.

4. The method of checking.
Assembling merchandise before it is rung slows down the operation.

5. The personnel.
   (1) Number. Each operator added to the stand increases output, but at a declining rate.
   (2) Competence. There is a wide spread in the speed at which trained cashiers can ring merchandise, and comparable differences in the productivity of unloaders and sackers.
   (3) Organization. When four operators are used, two average baggers have no difficulty keeping up with a fast cashier and unloader, while with three operators, it takes a fast bagger to keep up with an average unloader and cashier.
   (4) Morale. How much production is obtained on any check stand obviously is influenced by how much productivity the operator wants to obtain.
   (5) Teamwork. When two or more people are operating a stand the way each person performs his part of the job, of course, has a bearing, favorable or otherwise, on the performance of the next operator in line. A smart job of unloading makes for easier and faster ringing. Where and how far the cashier pushes the merchandise as she rings it speeds or slows sacking. With three people to a stand, when a small order sandwiched between two large ones reaches the cashier, this gives her an opportunity to sit back and wait for the unloader and bagger to catch up - or an opportunity to lend a hand to the bagger.
   (6) Fatigue. When this factor creeps up depends, of course, on the operator and the pace at which she works.

The cashiers who helped us on these tests worked under conditions comparable to the Friday rush

periods. While they were most cooperative, we found they slowed down after working two or three hours under pressure.

6. Miscellaneous.
The time of the day, an error or mix-up in orders, the mood operator is in, whether she has just stepped into the check stand or has been there long enough to "get in the groove," likes or dislkies the stand, are additional variables which affect output.

CONTROL OF VARIABLES IN TESTS

1. Size of order.
As a means of eliminating these variables affecting capacity, the same 12 orders, averaging 18 items, and $6.00, were used on all four stands tested.

2. Composition of order.
This practice introduced another variable - familiarity with prices and composition of orders. This we minimized as much as possible by getting figures on all stands after all the operators were familiar with the orders.

3. Flow of the traffic.
In all the tests on all the stands, orders were delivered as rapidly as operators could handle them, and the trainer acting as customer always had her money ready.

4. Method of checking.
When three and four operators were used on the SPEEDEE and BELT and PUSHPULL stands, the unloader was able to make a complete assembly most of the time. When one and two operators were used on these stands, no assembly was required.

5. Personnel.
   (1) COMPETENCE: All four cashiers used for the tests were trained, and well above average in competence. Two operated SPEEDEE stands in their stores.
   (2) ORGANIZATION: When three and also four operators were used, the two fastest girls were used as unloaders and cashiers on all stands.
   (3) MORALE: This was exceptionally favorable because of the interest the girls took in the experiements.
   (4) TEAMWORK: This was extraordinary, because of the competence of the girls, and their exceptional morale.

(5) FATIGUE: An attempt was made to eliminate this by providing a rest period whenever it began to show up.

6. Miscellaneous: Every effort was made to control these factors, but without complete success, as evidenced by the figures on certain runs on all types of stands.

7. An accurate assembly of merchandise was required on the ACME stand at all times.

The following tables, as compiled by the training instructors of American Stores Company, give a break down of the tests performed by management. The four types of checkstands: the Turntable (Spee-dee), the Belt, the Push-pull, and the Stationary (Acme), were used in the test. The stands were tested with one, two, three, and four operations per stand. The dollars checked, average dollar per hour, average dollar per man hour, percentage dollar errors, and the number of department errors were recorded, according to the type of checkstand and the operators.

The test on check-out counters by the American Stores Company indicates several interesting points. With a single operator, the Turntable (Spee-dee) was the fastest checkstand while the Stationary (Acme) was the slowest, based on the average dollars checked per hour. But, the difference is not as great as it seems (14%), since several of the tested checkers averaged more dollars per hour on the Stationary (Acme) that they averaged on the Belt or Pushpull.

TABLE I

SINGLE OPERATOR
Complete assembly on PUSHPULL and ACME
No assembly on SPEEDEE or BELT

	SPEEDEE	BELT	PUSHPULL	ACME
$ Checked	$1709.04	$1433.36	$1851.46	$1352.99
Average $ per hour	305.55	298.20	271.80	266.70
	Difference between fast stand (SPEEDEE) and Slow (ACME) $38.85 per hour, or 14%.			
Mary $ Checked	$ 356.05	$ 284.84	$ 569.68	$ 356.05
Average $ per hour	307.20	294.00	303.60	280.80
Lorraine $ Checked	$ 427.26	$ 427.26	$ 427.26	$ 284.84
Average $ per hour	306.60	305.40	269.40	276.00
Margaret $ Checked	$ 427.26	$ 356.05	$ 498.47	$ 284.84
Average $ per hour	300.60	277.80	245.40	250.80
Pauline $ Checked	$ 498.47	$ 356.05	$ 356.05	$ 427.26
Average $ per hour	307.80	315.60	268.80	259.20

TABLE II

TWO OPERATORS
Complete Assembly on PUSHPULL and ACME
No assembly on SPEEDEE or BELT

	SPEEDEE	BELT	PUSHPULL	ACME
Average of All Operators				
Av. $ PMH.*	$ 527.60	$ 488.40	$ 463.20	$ 469.80 ($64.)
$ Spread	222.05	190.20	191.40	203.10
% Spread	72.16	63.8	70.4	76.2 (13.9)
Two Fastest Operators				
$ Checked	$ 427.26	$ 284.84	$ 356.05	$ 356.05
Av. $ PMH.*	537.60	513.00	481.20	522.60
	Difference between fastest (SPEEDEE) and slowest (PUSHPULL) is $57.00 per hour or 12%			
Two Slowest				
$ Checked	$ 356.05	$ 284.84	$ 356.05	$ 284.84
Av. RPMH.*	511.20	483.00	435.00	439.20
	Difference between the fastest (SPEEDEE) and slowest (PUSHPULL) is $76.00 per hour or 17%			
Fast and Slow Combination				
$ Checked	$ 427.26	$ 213.63	$ 356.05	$ 213.63
Av. $ PMH.*	534.00	469.20	473.40	447.60
	Difference between fastest (SPEEDEE) and slowest (ACME) is $87.00 per hour or 19%			

*PMH. - Per man hour.

TABLE III

THREE OPERATORS
Unloader, Cashier, Bagger

A practically complete assembly was made on all stands by the unloader.

	SPEEDEE	BELT	PUSHPULL	ACME
$ Checked	$ 356.05	$ 284.84	$ 356.05	$ 356.05
Av. $ Per Hour	583.80	546.00	586.80	585.82

The same operators were used in the same position on each stand.

Difference between the fastest stand (PUSHPULL, $586.80) and the slowest (BELT, $546.00) $40.80 per hour or 7.5%.

TABLE IV

THREE OPERATORS

	Cashier - Two Baggers			Unloader-Cashier-Bagger		
Stand	$ Per Hour	% $ Errors	No. Dept. Errors	$ Per Hour	% $ Errors	No. Dept. Errors
Spee-dee	$544.20	.088	5	$538.80	1.39	0
Belt	542.40	.091	0	546.00	0	0
PushPull	499.20	.04	0	586.00	0	0
Acme	575.40	.011	0	585.00	0	0

TABLE V

FOUR OPERATORS
Unloader, cashier and two baggers

A practically complete assembly was made on all stands by the unloader.

	SPEEDEE	BELT	PUSHPULL	ACME
$ Checked	$ 213.63	$ 427.26	$ 356.05	$ 356.05
Av. $ Per Hour	644.40	642.60	641.40	657.00

The same operators were used in the same position on each stand.

Difference between fastest stand (Acme, $651.00) and slowest (PushPull, $641.40) is $15.60 per hour or 2.5%.

With two operators, grouped into the two fastest and the two slowest, the Turntable (Spee-dee) again was the quickest but the Pushpull was the slowest. With a fast and slow combination, the Turntable (Spee-dee) and Stationary (Acme) were the fastest and slowest, respectively.

As the number of operators increased, up to four with an unloader, cashier, and two baggers, the Stationary (Acme) became the fastest and the Turntable (Spee-dee) the slowest.

With three operators, a cashier and two baggers, the Stationary (Acme) averaged more dollars per hour with less errors than the other three checkstands. With an unloader, cashier and bagger, the Stationary (Acme) was one dollar

behind the fastest checkstand, the Pushpull, in dollars per hour and also had no errors.

The conclusions that can be drawn from these tests are:

1. Although there is a spread of fourteen per cent between the fastest and the slowest checkstand with a single operator, speed is not very necessary in this case. Single operators are usually used when there is no rush of customers at the checkstand, therefore, the customers do not have to wait in line an extensive amount of time.

2. With four operators, the four checkstands operate at about the same pace. During rush hours each stand can check about as many dollars, since four operators are usually used during a rush period.

3. The number of errors was less on the Stationary (Acme) than the other checkstands when a cashier and two baggers were used; also when an unloader, cashier, and bagger were used.

The Stationary checkstand used by American Stores performs as well as the other three checkstands and costs less to install, therefore, there is no reason to change to one of the other types.

The Development of the Checkstand

The last ten or fifteen years have brought about a remarkable change in the handling of merchandise at the check-out stand. Before the change, which came after the

Second World War, the bascarts had removable baskets. The customers would make their purchases and proceed to the check-out stand where the cashier would lift the basket onto a stationary counter and check the merchandise out of the basket. Much time was consumed in bending, lifting, unpacking, sorting, checking, collecting, and bagging the merchandise. Time was wasted and the cashiers were prone to commit many errors due to fatigue and the absence of a system of checking. Something had to be done to speed-up the checking operation and decrease errors and customer dissatisfaction.

The first improvement was a checkstand that had more counter area. The advantages of more space are best explained by the following quotation:

> . . . items being removed one at a time from the basket did not allow customers the full benefit of group prices because at times identical items priced in combination became separated when checked. . . . because all merchandise in the basket was mixed together, department keys had to be changed frequently, a further cause of error. Added to these possibilities was the checker's failure to lift one item at a time out of the basket, preferring instead to remove four or five items at one time, then ringing them all together. Then again, what was to be done with customers who insisted on carrying purchases to the checker in their arms?[28]

More counter area enables the cashier to assemble orders before checking, also, the merchandise can be removed from the basket, which remains on the carriage, a few items at a time. The new checkstand operation results in

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[28]Ferguson, op. cit., 178.

less physical strain and fatigue on the part of the cashier and the customers receive full benefit of group prices because combinations are kept grouped. The merchandise can be departmentalized on the checkstand, thereby decreasing the possibility of department errors. Also, there is room for customers to place merchandise on the checkstand which is carried without using a bascart. Although the possibility of error was reduced with the more spacious checkstand, the cashier was still required to take many steps and had many functions to perform with the result that the speed of the operation was not greatly increased.

The next development was unloading of the bascart by the customer. This made the cashier's job easier since the customer does the lifting and sorting (to a certain degree). A checkstand was then designed with a pull-bar slide, which was known as the Pushpull. The top of the stand is extra long and narrow, and extends beyond the register in the direction of the interior of the store. The stand is about eight feet long with the cash register usually placed at the middle of the counter.

As the check-out area is entered by the customer, she places the merchandise on the first part of the checkstand. The cashier, by means of a "U" shaped bar, pulls the merchandise to the register and returns the bar to its former position at the front of the checkstand. As the checker tabulates the merchandise, the purchases of the next

customer are placed on the first part of the counter, and the procedure continues.

Maintain Store Engineering Service, Incorporated, of Woburn, Massachusetts manufactures this type of checkstand in two sizes. The specifications of the checkstands are:

> All metal base.
> Rugged, heavy gauge stainless-steel top.
> Birch pull-bar slide.
> Sloping front for ample leg room.
> Top size: 7'-9" long, 19" wide, 30" high, and
> Top size: 9' long, 21" wide (bagger end 42" wide) 30" high.
> Finish is Buff baked-on plastic enamel.[29]

With the advent of the Pushpull check-out counter came a number of changes in the designing of checkstands. Companies such as Deer Lodge Manufacturing Company; Friedrich (Becht) Refrigerators, Incorporated; Maintain Store Engineering Service; The Zephyr System; Hussmann Refrigeration, Incorporated; Durable Fixture Company; The Bulman Corporation; Almor Company; and Spee-dee Checkout Systems; have done a remarkable job in developing mechanical checkstands. A description of the various checkstands manufactured by the above mentioned companies will now follow.

With the Pushpull check-out counter, the cashier has to pull the "U" shaped bar, loaded with merchandise, to the cash register. Many times the order is so large the checkers do not have enough strength to pull the loaded bar. Thus, time is spent either getting aid, or in stretching

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[29]Maintain Store Engineering Service, Inc.

for the merchandise. Often times merchandise is crushed or broken because of the weight shifting to the back of the bar. Conveyortype checkstands were designed to eliminate these faults.

A moving conveyor belt was substituted for the pull-bar on top of the counter. The movement of the belt is controlled by the cashier by means of a foot pedal or hand switch. As the customer approaches the checkstand, the cashier (should), with a friendly greeting, tactfully ask the patron to place the merchandise on the conveyor belt. The checker starts to tabulate the order when the items are placed on the conveyor. By using the foot pedal or hand switch to bring the items to her side, the cashier provides more room for the customer to continue unloading the remainder of the order on the conveyor. When each item is checked and moved six inches, the cashier again starts the belt to make room for the customer's purchases, to bring more merchandise to be checked, and to carry tabulated items to the bagger. Thus, the job of pushing the merchandise to the bagger is eliminated since the conveyor belt does the work.

Since the movement of the belt is controlled by the cashier, human judgment is involved and human error is bound to occur. Because of human error, merchandise can move past the cashier without being charged causing, losses to the supermarket.

A checkstand that would aid the cashier in checking every item is necessary. The check-out counter that assists the cashier in this way would also have to be fast, assure less work for the checker, and separate orders to prevent errors by the bagger. A checkstand designed to perform a fast, efficient, and accurate job with minimum effort is the "Pacemaker," manufactured by the Deer Lodge Manufacturing Company of San Bernardino, California. Features of the "Pacemaker" are: no customer participation; checker remains in same position throughout entire sales operation; customer sees register and scale simultaneously with no cart interference.

The operation of the "Pacemaker" is relatively simple. There are no cigarett or similar counters at the entrance. Upon approaching the check-out area, the customer leaves the bascart in the opening between the register stand and the counters. The checker uses her left hand to unload the bascart and her right hand to tabulate the order. The checker places the merchandise upon the conveyor belt which carries the merchandise to the sacker. A separator bar is used to divide orders if the bagger does not finish the first customer's purchase before the checker starts tabulating the next order. The patron, without having to do any unloading, stands in the check-lane and observes the register, scale, and items being checked. When the cashier has emptied the bascart, it is pushed back by the checker and nested with other carriages. The cashier totals the order, collects

the money, and the transaction is completed with a minimum amount of effort on the part of the customer and the checker.

Another system designed to prevent merchandise from passing the cashier without being checked was designed by the Fredrich (Becht) Refrigerators, Incorporated of San Antonio, Texas. The convey belt of the Becht checkstand carries merchandise from the entrance of the checkstand to the cash register. The customer places the merchandise on the conveyor. After an item is tabulated, the checker must push it the rest of the way down the counter to be bagged since the conveyor ends at the cash register. By compelling the cashier to handle the items separately, the possibility of an article passing the checker without being included in the total is greatly decreased. The becht also has a divider bar so two orders may be bagged simultaneously.

The "Pace-O-Matic," by Maintain Store Engineering Service, Incorporated of Woburn, Massachusetts, is a single belt type of checkstand. At the cash register a stationary bar, about one inch square, is placed over the conveyor belt. As the merchandise is placed on the conveyor belt it is carried to the bar which stops the goods while the belt continues to move. The cashier must lift the merchandise over the bar, item by item, as the order is tabulated. The conveyor then carries the goods to the bagger. The stationary bar is designed to eliminate the possibility of merchandise being carried past the cashier without being checked. The

"Pace-O-Matic" has a divider bar for separating orders when the checker is ahead of the bagger.

The "Accromatic," by the Zephyr System of El Monte, California, is very similar to the "Pace-O-Matic." The difference, except for the actual physical shape of the checkstand, is that the "stop" bar, on the "Accromatic," automatically halts the moving belt when merchandise comes into contact with the bar. The belt resumes running after the items are removed from against the bar, tabulated, and transferred to the other side. Because of the necessity of lifting each item, few articles pass the cashier without being checked.

The "Auto-Flo," by Hussmann Refrigeration, Incorporated of St. Louis, Missouri, and the "Duramatic," by the Durable Fixture Company of Cleveland, Ohio, are two belt checkstands, with dead plates that divide the conveyors. The rear conveyor usually moves continuously throughout the tabulating process, while movement of the front belt, on which the customer places the merchandise, is controlled by the cashier. When a customer places her purchases on the first belt, the cashier starts the conveyor to transport the merchandise to the dead plate. Each item stops on the six inch wide dead plate. The cashier, while checking the order, must then push the merchandise, item by item, to the rear conveyor so the goods will be carried to the bagger. Both the "Auto-Flo" and the "Duramatic" have a deflector or

or a divide bar to keep tabulated orders separated so they will not be mixed by the bagger.

The "Automatic," by the Bulman Corporation of Grand Rapids, Michigan, is a two belt checkstand. This checkstand counter works on the same principle as the "Auto-Flo" and the "Duramatic" checkstands. The two conveyor belts are divided by a plate which is about six inches in width. The plate, which is called the "Micromatic Plate," is located in the same position as the stop bars and dead plates. The "Micromatic Plate" stops the first belt as items accumulate for checking, starting it again when the cashier tabulates the articles and slides the merchandise off the plate onto the rear conveyor. The rear belt moves continuously throughout the tabulating of the order, carrying merchandise to the bagger for immediate sacking. A spring-loaded, hinged divider bar keeps merchandise separated when the checker starts a new order and the bagger is working on the previous one.

The "Check-Eze," by the Almor Company of Detroit, Michigan, is constructed on the same order as Bulman's "Automatic." The "Check-Eze" is a two belt system with a divider plate about twelve inches wide. An electronic eye mechanism placed just ahead of the dead plate, stops the first conveyor as each item of merchandise reaches the cashier. The loader conveyor is automatically started as the item is moved out of the beam of the electronic eye onto the second belt, stopping the first conveyor again as

the next item is delivered to the cashier. A divider bar separates the orders for the bagger when more than one is tabulated and on the checkstand.

A checkstand that is different in design, operation, and appearance, than any counter heretofore mentioned is the "Spee-dee" of the Spee-dee Checkout Systems, Grand Rapids, Michigan. The "Spee-dee" checkstand is designed to accomplish three important goals: (1) to eliminate "bottom basket pilferage"; (2) to create easy cart disposal; and (2) to facilitate the job of the cashier. The design of the checkstand is responsible for the attainment of these goals.

The "Spee-dee" check-out counter has a circular turntable at the customer's entrance to the checkstand. If an imaginary line is drawn parallel to the checkstand (a line that follows the same direction as the checkstand conveyor belts mentioned earlier in this chapter) and placed on the turntable so that the line forms the diameter of the turntable, the position of the cash register and the customer unloading location can readily be identified. Imagine the turntable as the face of a clock with the twelfth hour located at the front of the turntable (the customers' entrance) where the diameter line intersects the rim of the disc. The customer enters the check-out area and takes the merchandise to the left of the checkstand where the items are placed on the turntable between twelve and three o'clock, according to the disc. The cash register is located on a

platform that covers the disc between three and six o'clock. As the merchandise is placed on the turntable by the customer, the cashier starts the movement of the disc, which is counterclockwise, to bring the order around to be tabulated. When the merchandise makes the circle of the disc, the edge of the counter, which supports the cash register over the turntable, forces the goods off the disc to the side of the cashier. As the cashier checks the items, they are pushed down a slight grade to the sacker. When the customer has finished unloading the bascart, it is pushed straight ahead, on the left side of the checkstand, where the cart is nested with those from previous orders. The nested bascarts remain along side the checkstand on the cashier's right-hand side. The customer moves to the other side of the check-out counter, pays for the merchandise, and leaves.

The three important goals are readily obtained by the "Spee-dee" check-out counter. "Bottom basket pilferage" is eliminated since the bascarts are nested along side the checkstand, therefore, unchecked merchandise does not leave the check-out area; baskets are nested after unloading; and lifting or stretching by the cashier is greatly reduced since the merchandise is brought to the cash register by means of the turntable.

Comments by the Author

With the many new innovations incorporated into the check-out counters, the question may be asked, "What next?".

Actually, there are many more improvements that can be made to the checkstands. The conveyor belts can be made longer so several persons can unload their orders simultaneously. Thus, the "Waiting time" of the customer would be decreased since she would be able to unload her bascart sooner. More than one order would also be ready to be tabulated, thereby decreasing loss of time by the cashier waiting for the conveyor to be loaded. The speed of the belt could be regulated according to the speed of the particular cashier operating the checkstand. By regulating the speed of the conveyor to that of the cashier, the checker would be more inclined to check for a longer period of time without any great fatigue, because, she (the checker) would be maintaining her own steady pace and not the pace of a machine. The cashier would also be less inclined to err, since the speed of the operator depends on the individual, causing less fatigue which is a great cause of errors at the check-out counters.

The height of the cash register stand has a great deal to do with the loss of efficiency. If the cash register is too high, the checker must move her eyes an excessive distance which is tiring. Eye strain is a contributing factor to the slowing down of the check-out operation and making errors. By having the cash register on a lift that could be lowered or raised to suit the height of a particular checker, the possibilities of eye fatigue would be greatly lessened.

Summary

Since the chains operate on a net profit on sales of about one per cent, errors must be minimized. An attempt is made through checker training to decrease errors, but the proper equipment must also be used to secure greater accuracy. Proper equipment includes a checkstand that will make the cashier's work easier and enable her more time and energy to tabulate orders, collect money, and make change.

Efficiency and accuracy, combined with speed and serviceability, are the qualities sought by management in a checkstand. When management finds a check-out counter that meets these requirements, and the counter is superior to the checkstand being used, a change should be made. But, if management is satisfied that their checkstands are not obsolete, as the case was in the American Stores' test, then there is no reason for new checkstands. However, the important basic requirements of a checkstand, which are; speed, efficiency, accuracy, area, accessibility, and design, should not be overlooked.

A checkstand that is efficient and accurate, and has servicability and speed, may not suit a particular supermarket if it is too large, inaccessible, or extreme in design. If a small supermarket requiring four checkstands is equipped with counters that are too bulky, the required amount of check-out counters will not be installed for lack of floor area. A checkstand that is difficult for the

customer and/or the cashier to enter or leave, does not serve the full purpose of management, since any complaint by patrons or employees may eventually lead to a decrease in profits through the loss of customers. A checkstand that has a design which is not in accord with the design of the market, such as an antique looking check-out counter in an ultramodern supermarket, is out of place. These and many other points, like cost and durability, must be considered before a checkstand is decided upon. Therefore, management must choose the checkstand that best suits its particular type of operation, and base their decisions on known facts.

CHAPTER V

THE CASH REGISTER

> . . . . the problem at the check-out stand is a relatively simple one. The only job to be done is to check out the merchandise. The only knowledge required on the part of the checker is the ability to record prices accurately, plus facility in operating the cash register. In a CLERK-SERVE store the problem is much more difficult. The clerk must not only do everything that the checker does, but, in addition, must assist the customer in selection of merchandise and must actually assemble it on the counter. In a CLERK-SERVE store a clerk must be in attendance upon every customer ALL of the time she is in the process of selecting merchandise, having it recorded, and paying for it. In a SELF-SERVE store that period of contact with store employees is limited only to the time required to record the sale.
>
> The cash register itself can never be a limiting factor. An electrically-operated check-out. . . . is capable of operating faster than any operator can accurately check out merchandise. Therefore, we need give no further thought to the register as a cause for delay.[30]

The past half century has seen many changes in the method of handling money received from customers. In years gone by, the cigar box and a drawer with a bell were the favorite places for keeping the cash receipts. As methods of merchandising improved, so did methods of tabulating the orders and collecting payments on purchases. With the early cash register, the clerk had to list the prices of each item in a column and add the total. The total amount of the order

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[30]John M. Wilson, "A Customer Already Buying, Won't Leave. . . One Waiting, May!," National Cash Register Company, Dayton, Ohio.

was then rung on the register and the money received placed in the drawer, which opened. With the advent of the supermarket, a new method of tabulating merchandise had to be found. A cash register was designed that could add the prices of the goods and keep a record of the department sales from which the merchandise was purchased, as well as keeping a record of total sales tabulated. Thus, with a new era in marketing, also came a new method of tabulating orders and collecting cash receipts.

There are three basic types of cash registers used in the self-service supermarkets today: The Standard and Change Computer of the National Cash Register Company of Dayton, Ohio; and the Sweda of the Sweda Cash Register, Incorporated of Chicago, Illinois.

The National Cash Register Company

People who shop in supermarkets have certainly seen the National Cash Register. This cash register is as much a part of the supermarket as the groceries. Customers have come to know and depend upon the Standard model of the National Cash Register Company. Recently, the company has introduced a new model, the Change Computer. For the benefit of the reader who is not familiar with either the Standard or the Change Computer, the author will briefly describe the operations of the two cash registers.

The Standard National Cash Register. The exterior of the National Cash Register consists of the indicator on top, the keyboard in the center, and the cash drawer on the bottom of the register.

The indicator is used by both the customer and the cashier to read the amount of each item tabulated and the sub-totals and totals of the order.

The keyboard of the cash register is that area upon which the cashier performs the mechanical functions of checking. This area includes the exterior operating parts with the exception of the release lever and the cash drawer. The keyboard consists of the tape opening, checker identification keys, tabulating keys, department keys, the total lever, and the motor bar.

When an order has been tabulated and totaled, the register receipt is discharged at the tape opening. The register receipt, which is given to the customer, is a detailed list of the merchandise tabulated, item for item, designating the prices charged, the departments, and the total amount of the order.

The checker identification keys, which are usually lettered from A to D, are used to identify the cashier operating the register. (The register will not operate unless an identification key is pressed.) When the checker is assigned to a cash register, she is also assigned an identification key. The letter of the key used by the

cashier, the number of the register, and the date, appear on the customers' receipts. If any questions are raised by the customer, after she has left the store, about the price charged for an item, the cashier who rang the order can be easily identified and questioned.

The tabulating keys usually consist of three verticle rows of buttons which are numbered from one to nine; number one being on the bottom, nine on the top of the keyboard. These keys are used for placing the prices of the merchandise into the register for adding. When the tabulating keys are pressed with a department key (if motorized), and/or the motor bar, the price of the item appears on the register receipt and on the indicator in view of any interested party.

The department keys are used to indicate the departments, grocery, meat, produce, or dairy, from which each item is obtained. The price and the department appear on the indicator and on the customer's receipt. Total sales of each department are also recorded in the register through the use of the department keys. If the department keys are motorized, the price is recorded in the register as soon as a department key is depressed. If the department keys are not motorized, then the tabulating keys, the department key, and the motor bar must be pressed to record the sale.

Under the department keys in the lower section of the keyboard, are the tax and no sale buttons. The tax button is used for recording money due on taxable items. To open the register drawer for any reason other than a sale, the no sale key should be used.

The total lever operates in a slot which is parallel to, and to the right of the department, tax, and no sale keys. When the total lever is in the center position of the slot, the cash register adds. The sub-total is obtained by pushing the lever to the top of the slot. By bringing the lever to the bottom, the cash drawer is opened, the total of the order is shown on the indicator and is printed on the register receipt and detail roll. Above the sub-total stop, there is a section in the lever slot which opens with a special key. When this section is opened and the total lever pushed up to the top, the total business for each department may be obtained by pressing the department keys. By bringing the lever down to the next stop and pushing the motor bar, the total business done on the register may be obtained. The figures obtained from this upper section of the total lever slot are printed on the register receipt and discharged at the tape opening.

The motor bar which controls the operation of the cash register is located on the right center of the keyboard. Prices, if the department keys are not motorized, are put into the register and added, sub-totals and totals are shown, and the cash drawer opened, after the motor bar

has been pressed. The motor bar activates the cash register by completing the electric current and allowing the electricity to operate the machine.

The release lever, which frees any keys that may be depressed by error or accident, is located on the upper right hand side of the cash register, just below the indicator.

Above the register drawer and below the working area is a window containing several dials. From these dials can be read; the number of customers checked, the number of no sales rung, the number of sales made by each checker, the number of tax sales, and the number of items sold in each department.

Inside the cash register is the detail roll. Every transaction handled on the register is printed on the audit strip in the order of occurrence. The detail roll is a permanent and unchangeable record of every transaction that is computed by the cash register.

The Change Computer. National Cash Register's new Chamge Computer has the same general appearance as the Standard, with the following exceptions. Department keys are listed as follows; meat, produce, miscellaneous, tax, no change, amount tendered, refund, and change. The motor bar is the grocery department key.

The no change, amount tendered, and the change keys are the buttons which give this cash register the name,

Computer. When the total of the order is registered; if the customer gives the cashier more money than the indicated amount for the order, a twenty dollar bill for a twelve dollar purchase, this amount ($20) is placed in the register by depressing the twenty dollar button, then the amount tendered key. The change key is depressed and the amount of change due to the customer is recorded on the customer's receipt and on the register indicator. The change indicated in this case would be eight dollars.

If the exact amount of money for the total purchase is tendered to the cashier by the customer, then the no change key is pressed and the drawer opens. If the cashier accidentally enters an amount less than the cost of the order on the amount tendered key (amount tendered $5.00, price of purchase $8.00), the cash register will not operate. The cashier will have to release the five dollar key and enter the proper amount.

The meat and produce department keys are motorized for individual ringing and entering of the merchandise. Motorized department keys are helpful where items are not pre-sorted by departments.

The refund key mechanically subtracts from the total of the order, the amount of credit due for all refunds (coupons, bottle returns, and/or returned merchandise). The key can also be used in the event of overcharging on an item by simply cancelling the entire amount of the "over-ring" and re-entering the proper amount into the register.

The refund key saves time spent by the cashier in subtracting, and also assures accurate subtraction. The use of the refund key eliminates an important recording step. There is no way of telling if the subtraction was an "over-ring," returned merchandise, or bottle returns. If records are kept, then a double operation is performed, writing and tabulating, which lengthens the time to make the refund.

The Sweda Cash Register

The Sweda Cash Register is small and compact. The single drawer cash register, which is used in most supermarkets, measures 18" x 14" x 18". Since the width of the register is a little over one foot, the keyboard must be smaller. With the working area less than a foot, even the small hand of a female checker can readily span the keyboard. A description of the working area or keyboard of the Sweda Cash Register now follows.

The identification keys are on the upper left of the keyboard. An identification key must be depressed and turned to the right in the pressed down position before a transaction can be tabulated. If the cashier must leave the register, or go off duty, the identification key is removed from the slot for the protection of the checker. The keys are not interchangeable, thus, only the person having an identification key can operate the cash register.

The department keys, and a tax key, are on the lower lefthand side of the working area and just a few inches to

the right of the identification keys. The first department key, grocery, is automatic and does not have to be depressed manually unless management so desires. If management wishes that no amount should register unless a department key is depressed, the adjustment is easily made.

The center of the working area is composed of the adding keys. There are usually four rows of keys, two for cents and two for dollars. The lefthand row of buttons registers amounts from ten dollars to ninety dollars, with ten dollars on the bottom of the keyboard.

All five fingers of the right hand are used in the operation of the Sweda keyboard. The home position of the thumb is the one dollar key, the index finger--the fifty cent key, the middle finger--the seven cent key, the ring finger--the total key, and the little finger--the motor bar. The one to four dollars, the ten to forty cents, and the one to four cents keys are controlled by the thumb. The index finger controls the five to nine dollars and the fifty to ninety cents keys. The five to nine cents keys are controlled by the middle finger.

The motor bar is located between the five and eight cents keys, to the immediate right of the total button, and automatically gives the sub-total of the order when pressed alone. When pressed after the total key, the total of the purchase is recorded.

The correction key, to release buttons that were pressed by error, is located in the lower righthand corner of the keyboard.

The receipt chute is in the upper righthand corner, below the indicator. As the items are recorded by the cash register, the prices are stamped on the receipt in the order of tabulation. The first item checked is recorded last on the customer receipt and the total price of the order is recorded first. When the final total of the order is taken, the customer's receipt is automatically clipped off by the register.

The department totals are obtained by inserting a special key into a lock opposite the three cents button. The key is turned counterclockwise and the department buttons pressed, one at a time, followed by the pushing of the motor bar. When department totals are obtained, pressing the motor bar again gives the group total. A receipt is issued containing all the necessary information.

The Sweda Cash Register Company also manufactures a Refund Subtract Model which subtracts and provides a record of cash refunds, bottle returns, and coupons.

Comments by the Author

The cash registers of today are accurate and simple to operate. Any person who can read and push buttons can perform the cashier's duty since the functions of the checker have been greatly simplified by the respective cash

register companies. There is, however, one improvement or device that can be added to the cash registers, and that is a "stamp dispenser."

Stamps may be short lived, but predicting the future is extremely difficult. While stamps are present and growing, as at present, a more efficient means of handling the stamps should be devised, such as a stamp dispenser. This dispenser would consist of an attachment that could be connected to either side of the cash register. A double roll of several thousand stamps, similar to the register roll could be placed under the cash register and threaded up through the special attachment in the same fashion as the register tape. The attachment should be connected with the cash register so when the sub-total on the order is taken, before taxes and liquors, a button could be depressed which would dispense the correct number of stamps in the same way that the register dispenses the receipt. The stamp dispenser would eliminate shortages due to loss or theft, and would also save a great deal of time. In order to give out stamps, the cashier must take a sub-total before ringing non-stamp items, open the stamp drawer, remove the required number of stamps, close the drawer, give the stamps to the customer, and continue to check. With a stamp dispenser, these steps would be eliminated. Three steps would be required; push the button, tear the stamps off the dispenser, and hand them to the customer.

Summary

The cash register is an extremely important piece of equipment in the front end operation of a supermarket. If the cash register was removed from the check-out operation, and the old method of writing down the prices of the merchandise and adding manually restored, the use of the word "super" would have to be discontinued in referring to supermarkets. Without the cash register, the front end operation would lack speed, accuracy, and efficiency. Customers as well as management, would be dissatisfied with the lack of speed and accuracy. The operation of the supermarket would be "thrown back" to the dark ages. There is no amount of help that can compensate for the absence of one cash register. The very idea of having a machine perform the addition gives the customer confidence, since a machine-added total is accepted as accurate. Therefore, cash registers must be used in supermarkets.

Even if adding machines were substituted for cash registers, the check-out operation in the supermarkets would not be made more accurate or faster. An adding machine combined with a drawer and bell may resemble a cash register, but there is a big difference. With an adding machine, the customer cannot see the price of each item being tabulated. The department from which the merchandise is purchased will not be indicated on the adding machine receipt. The lack of department keys means that management

will not be able to determine how much business was done for any period by each department. The adding machine is good for straight tabulation, but it cannot replace the cash register.

Management must investigate and find out as much as possible about each type of cash register, and decide which is the best type, style, and make to use to perform the particular type of work that is desired. Once a register is selected and trained cashiers are added, management has a team that puts the "super" back in supermarket.

The thought of John M. Wilson is well worth repeating:

> The cash register itself can never be a limiting factor. An electrically-operated check-out. . . . is capable of operating faster than any operator can accurately check out merchandise. Therefore, we need give no further thought to the register as a cause for delay.[31]

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[31] Ibid.

CHAPTER VI

CONCLUSIONS

The necessity of having qualified checkers, properly trained, with the most suitable equipment, cannot be over-empasized. Since food chains operate on a net profit on sales of about one per cent, accuracy, efficiency, and speed, are of the utmost importance. The customer must be properly served since she is a very important person in any supermarket. By using the most suitable equipment, both the customer and management will be served accurately, efficiently, and quickly.

There can be no profit without customers, so management, through employee selection and training, should promote good customer-employee relations to insure that present customers will continue to shop in the supermarket, and create a favorable impression for the store in the minds of new customers. The cashier represents the supermarket management to the public. Actions and attitudes of the checkers will determine the customers' judgments of the market, therefore, cashiers should be governed by the following points when dealing with customers:

1. Patience is the first rule of conduct.
2. Alertness is necessary in serving customers.
3. Arguments with customers should be banned.
4. Raising of voices in the market and arguments among employees should be forbidden.

5. Friendliness with customers do not mean familiarity.

6. Cleanliness, neatness, and presentability should be practiced.

7. Punctuality should be expected.

8. Complaints of customers should be directed to the manager.

9. Intelligent service should be given.

10. Greeting customers with a smile and a "Hello" should be mandatory.

11. Appreciation should be expressed to the customer for shopping in the supermarket.

Research is necessary for the continual development of better service at the checkstand. In order to speed up this service, there are six points that should be considered by management:

1. Training checkers adequately.

2. Using training materials and consulting services of related firms to the best advantage (such as checkstand or cash register manufacturers instructions).

3. Providing ample check-out counters in the stores.

4. Training baggers.

5. Marking merchandise plainly.

6. Using the type of cash registers and checkstands suited to the stores.

The training of personnel should be systematic and complete.

In order to have good checking, the supermarket must first have trained checkers. Good management determines what is needed, sets up a plan of operation and training which will result in an operation that meets the needs and wants of the customers, as well as management. Through a proper training program, the cashiers are better able to serve the customers and to meet arising situations. The cashier develops speed, accuracy, and efficiency, plus improvement in morale, so vital in the operations of today's supermarkets. A realization of the importance of the job is developed, and a better company employee is molded to serve the needs of the customers.

The cashier's assistant, the bagger, should also be trained. The qualities of a good sacker are: personable, helpful, neat, respectful, courteous, clean, fast, and systematic. A person with these qualities will make a lasting impression on the customers. These two employees, the cashier and bagger, represent the company to the customer, for the check-out stand is the last, and usually the sole point of customer-employee contact in the supermarket. The last person to handle the customer's purchase is usually the bagger, therefore, the customer is likely to look to him if anything is wrong with any of the merchandise. Therefore, the sacker is likely to be considered the company in the eyes of the customer.

Equipment and facilities are important to the proper performance of a good checkstand. A good checkstand should

aid the cashier in accuracy as well as speed. The customer is interested in "getting out" of the market as quickly as possible, but, to her, accuracy is more important than excessive speed. When the customer realized that the job at the checkstand is well done, then she will return to shop again and again, thus, the needs of management and the customer are served. The customer receives the needed confidence which assures her that this is the store in which to shop, and management is assured that customers will return, therefore, the future of the business looks healthy.

There are many types of checkstands being used in the supermarkets. Although the checkstands are fundamentally the same, the added features of one type appear more useful to management of a particular chain than do the features of another. Management must "pick and choose" in order to find a checkstand that will serve the needs of their particular operation.

The cash register is a precision instrument. Maximum accuracy, as well as speed, should be obtained through the use of a good cash register. Of course, the accuracy and speed of the register depend a great deal upon the skill of the person using it, for a machine of this type is useless without an operator.

A cash register totals, subtracts refunds, and computes change faster and more accurately than can be done manually. The cash register and the cashier are an important team in a supermarket, because customer contact, and

the manner in which money is handled at the checkstand, affect profits. This money represents income, and any mistake at the checkstand due to human error or faulty equipment, over a period of time,can seriously harm profits. If the customer is undercharged a penny on a dollar, then there is no net profit on that sale. If the customer is continuously overcharged, she will stop buying at that chain and shop at another, thus net profits are decreased. Therefore, qualified checkers, properly trained, with the most suitable equipment are extremely necessary for the proper functioning of the check-out operations in a supermarket.

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Training Department. American Stores Company, 124 N. 15th Street, Philadelphia, Pennsylvania.

Training Department. Standard-Humpty Dumpty Super Markets, P. O. Box 1996, Oklahoma City, Oklahoma.

E. Periodicals

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"What Does the Customer Think--Managers' Training Course* Session 18," Chain Store Age, vol. 31, no. 2(February, 1955), Insert between 90-91.

F. Manufacturers' Data

Almor Company, Mt. Elliott Station, Detroit 34, Michigan.

The Bulman Company, Inc., 1719-1725 Elizabeth Avenue, N.W., Grand Rapids 2, Michigan.

Deer Lodge Manufacturing Company, 354 South I, Street, San Bernardino, California.

Durable Fixture Company, 2800 St. Clair Avenue, Cleveland 14, Ohio.

Hussmann Refrigeration, Inc., Hussmann Building, St. Louis 6, Missouri.

Maintain Store Engineering Service, Inc., 22 Crane Court, Woburn, Massachusetts.

The Robert Becht Company, 1087 Woodrow Street, Cincinnati 4, Ohio.

The National Cash Register Company, Main and K Streets, Dayton 9, Ohio.

Spee-dee Checkout Systems, 260 Garden Street, S.E., Grand Rapids, Michigan.

Sweda Cash Register, Inc., 7313-31 N. Harlem Avenue, Chicago 31, Illinois.

The Zephyr System, 11850 E. Valley Boulevard, El Monte, California.

APPENDIX

CHECKER TRAINING PROGRAM OF AMERICAN STORES COMPANY

The following is the outline, for Monday, used by the training instructors of the American Stores Company, Philadelphia, Pennsylvania.[1]

MONDAY

1. INTRODUCTION

I. Research

A. Sometime back the company spent weeks of research on the complete checking operation with two objectives in mind:
1. What is the most accurate method?
2. Which is the simplest and easiest method?

B. What do you think of these objectives - are they sound?

C. As a result of this research, the system of checking from the counter has been officially adopted as Company Policy.

II. Advantages of checking from the counter.

A. More accurate.
1. Our research showed that consistent observance of a system is essential to accuracy, that everytime you depart from a system you invite errors.
2. What percentage of our customers shop without using a basket?
   a. Our research showed that 50% of our customers shopped without carriages.
3. Research also showed that when you checked from a basket one at a time you were required to change the department keys more often, thus encouraging the chance of departmental errors.

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[1] American Stores Company, op. cit.

III. Research on Type of Check Stand.

A. After working on various type of check stands to find the one which made the work easier for the checker, this check stand was adopted.

B. Advantages.
1. Closer to merchandise - Less strain on legs and back.
2. Adequate room for large orders.
3. Working space of checker more compat. (Distance between register and work space.)
4. Abundant room for sacking - No lifting of large full bags.
5. Space for bottles.
6. Pads and pencils.
7. Ledge around counter prevents breakage.
8. Packer working outside prevents cramped working quarters.

IV. Purpose of Training Program.

A. Developed for three reasons:
1. To train all experienced checkers in the system of checking from the counter.
2. To train new checkers when replacements are needed.
3. To provide a uniform method of checking in all of our markets.

B. Improvement.
1. Since we started checker training, improvements have been constantly included in the training course.
2. Most of these improvements came from the checkers attending the training course.
3. We have no idea that what we now have is 100%. Therefore, we wish you would contribute your ideas and suggestions toward improving the operation while participating in this training.

V. Sample Orders.

A. We are going to ask you to run 6 sample orders to illustrate the following:
1. Why we need a system.
2. Where we should place emphasis in our training. (Only test checkers who have checked two weeks or more.)

B. When you run these 6 sample orders, we would like you to handle them as you do in the store and bag all merchandise the same as you do for the customers.

C. The prices on the merchandise are not store prices, but each item is marked clearly.

VI. Test orders - One to six.

A. Assign these jobs.
1. One trainee to act as checker - Provide change.
2. One trainee to act as customer - Provide money for purchases.
3. One to unsack orders, put in basket - Mix up merchandise, 1/2 of prices upside down.
4. One trainee to reline orders in proper sequence.

B. Record results on test run.
1. Write down money and department errors on ruled form - Do this as each order is run.
2. Start stop watch as trainee starts first order - Avoid being conspicuous.
3. Stop watch as last item on last order is sacked- Write down total time on ruled form.
4. Re-set watch to zero for next run of orders.

C. Test second trainee (Use same orders.)
1. Move trainee on #4 assignment to #1 position, #1 to #2, #2 to #3, and #3 to #4.
2. Test second trainee and record results as above.

D. Repeat above until each trainee has been tested on orders #1-6.

VII. Give trainees results of test - Avoid mentioning performances of any one trainee.
1. No four agreed on price of any one order.
2. Mention specific money errors made - "One cent error on a one dollar purchase more than wipes out the company's profit."
3. Refer to department errors - Errors here make produce and meat departments show poor results.
4. All checkers tested have made errors on these original orders.
5. All have made great improvement in accuracy as result of training.

2. INTRODUCTION TO REGISTER

I. Demonstrate to each trainee individually (having entire group observe; after two trainees, instruct by asking questions) how to:

A. Get register set for operation - Cover one step at a time, have trainee perform each step before going to next one.
   1. Check power plug - Electricity.
   2. Identify operator - Letter key extreme left of register, assigned by manager.
   3. Indicate departments - Colored keys at extreme right.
   4. Set machine to register - Totalizer lever to "add" position.

B. "Unset" register, have trainee perform entire operation - Identification and department keys raised, totalizer out of "add" position, pull plug occasionally.

3. INTRODUCTION ON 1-4 KEYS

THUMB KEYS

I. Have entire group observe. After second trainee instruct by asking questions. Have each trainee perform each step after you - Demonstrate to each trainee individually how to:

A. Ring 1-4 keys.
   1. Set register for operation - Have trainee perform without any instruction.
   2. Place hand on register for ringing - Heel of hand on motor bar, thumb on #1 key, fingers 45 degree angle, elbow raised.
   3. Indicate amount - Depress 1-4 keys with thumb.
   4. Register - Depress motor bar without lifting hand.

B. Change incorrect key - Pull down clearance lever with little finger.

C. Have each trainee total sales.
   1. Push totalizer lever to Sub - Use thumb.
   2. Depress motor bar - Use heel of hand.
   3. Pull totalizer lever to item - Use thumb.
   4. Push motor bar - Use heel of hand.
   5. Stop drawer - Use left hand.
   6. Tear off tape - Use left hand, call attention to identification key letter. Close drawer with right hand.

4. PRACTICE 1-4 KEYS, ADDITION DRILL

I. Assign two trainees to ring register.

A. Use exercise #1 - Give each trainee identification.
1. Give trainee copy of Exercise #1 showing total of each column.
2. Have trainee run total and sub total on each column - Put correct tapes face down on counter.
3. Instruct trainee to call you when answer is incorrect - Find out why, instruct how to avoid.
4. Have each trainee ring until other trainees have finished addition drill - Watch for slow, incorrect trainee.

II. Assign two trainees to addition drill.

A. Use form #632.
1. Have each fill in all answers.
2. Give each copy of correct answeres when finished.
3. Have trainee circle and study mistakes.

III. Check to see trainees on register are using thumbs, while others are working on addition drill.

IV. Have trainees reverse positions when register drill is finished - Remember to watch use of thumbs on register.

5. INSTRUCTION ON 5-9 KEYS

I. Have entire group observe. After second trainee, instruct by asking questions. Have each trainee perform each step after you - Demonstrate to each trainee individually how to:

A. King 5-9 keys.
1. Set register for operation - Have trainee perform without any instruction.
2. Place hand in proper position - Heel of hand on motor bar, forefinger on 9 key, fingers at 45 degrees.
3. Sub-total and total - Have trainee perform without instruction.

6. PRACTICE 5-9 KEYS - GROUP PRICE DRILL #5 & #6

I. Assign two trainees to ring together.

A. Use exercise #2.
   1. Give each copy of exercise #2 showing total of of each column - Have trainee use same identification key.
   2. Have each run sub-total and total on each column - Correct tapes face up on counter.
   3. Have each call you when answer is incorrect - Find out why, instruct how to avoid.
   4. Have each ring until others have finished group group price drill.

II. Assign two trainees to group price drill.

A. Use exercise 5 & 6 on Form #635.
   1. Have each fill in all answers.
   2. Give each correct answers.
   3. Have trainee circle and study errors.

III. Check trainees on register.
   1. Look for use of first two fingers.
   2. Look for errors and causes - Omitted items, transposed figures, wrong keys.

IV. Have trainees reverse positions when register drill is finished - Remember to watch use of first two fingers on register.

7. EXERCISE 3 & 4, GROUP PRICE SHEETS

I. Assign two trainees to ring register.

A. Use exercise 3 & 4.
   1. Give each copies of exercise 3 & 4 with correct answers - Use same identification key.
   2. Have each run sub-total and total on each column - Correct tapes face up on counter.
   3. Have each call out when answer is incorrect - Find out why, instruct to avoid.
   4. Have each ring until others have finished group price drill.

II. Assign two trainees to group price drill.

A. Use exercise 7, Form 635.
   1. Have each fill in all answers.
   2. Give each correct answers.
   3. Have trainee circle and study errors.

III. Check trainees on register.
   1. Use of correct fingers.

IV. Have trainees reverse positions when register drill is finished - Remember to watch use of fingers, correct cause of errors.

8. INSTRUCTION ON ASSEMBLY

I. Demonstrate assembly operation - Work with entire group.

A. Draw layout on blackboard - Pattern only.

B. Assemble order on counter. Have trainees watch operation for key points. See how many they note.

C. Demonstrate, explain, and discuss each step.
1. Call attention to use of both hands.
2. Point out merchandise is not moved once it is placed on counter - "Save yourself work by putting it in the right place the first time."
3. Point out how to work from the register, down the counter - " The closer to the register, the less work for you."
4. Hos to handle loose produce.

9. ASSEMBLY PRACTICE, EXERCISE 5, 6 & 7

I. Assign trainees to practice assembly - Give most of your attention to these trainees, watching for two hands, working close to register, moving only once.

A. Have one act as checker, other as customer.

B. Reverse when first has assembled three orders.

II. Assign two trainees to ring register.

A. Use exercise 5, 6 & 7.
1. Give each copies with correct answers - Use same identification key.
2. Have each sub-total and total - Correct tapes face up.
3. Have each call you on errors - Find out why, instruct how to avoid.
4. Continue until others have finished assembly.

III. Reverse pairs of trainees when first have completed assembly.

10. INSTRUCTION ON RINGING

11. RINGING PRACTICE

I. Have one trainee assemble order.

II. Demonstrate to entire group.

A. How to:
1. Put price on register as you put hands on merchandise - Not <u>after</u> merchandise is pushed.
2. Push motor bar as merchandise is pushed at least six inches - stress six inches.
3. Change department key - Before you register price, explain why.
4. Use sub-total and call out sale.
5. Use total when customer pays.

B. Discuss when you have rung half of order and bring out advantages.
1. Merchandise in good order for sacking.
2. Create customer confidence.

C. Resume ringing, calling attention to key points.

III. Have each trainee perform individually three times.

12. INSTRUCTION ON MAKING CHANGE

13. MAKING CHANGE PRACTICE - EXERCISE

A. Instruct group on arrangement of cash in drawer - Have two trainees stand at each till.
1. Pennies in left hand till, halves in right- Have them locate proper tills as you refer to them.
2. Rolls of coins in middle till.
3. Dollar bills to left, largest to right - Point out this is the easiest arrangement for making change correctly.
4. All checks under $2.00 bills.
5. Coupons, food orders, merchandise certificates back of change till.

B. Demonstrate proper method of making change - Have entire group observe.
1. Call out amount of sale and amount received - $1.63 out of $5.00.
2. Place amount received on ledge - Explain why.
3. Count to self, starting from amount of sale, to amount received, using smallest possible number of coins - $1.63, two pennies is $1.65, one dime is $1.75, one quarter is $2.00, three $1.00 bills is $3.00, is $4.00, is $5.00.
4. Count aloud and into customer's hand in same manner, beginning by repeating amount of sale and amount received - $1.63 out of $5.00. $1.65, $1.75, $2.00, $3.00, $4.00, $5.00.

5. Thank customer, put money received in till, close drawer.
6. Tear off tape, place face down on counter.

C. Assign two trainees to make change at register five times each - One as customer and one as checker, supervise.

D. Assign two trainees to practice on paper - Use Form #633.

E. Reverse after pair have finished at register.

14. COUPON DISCUSSION

I. Discuss value of coupons - Work with entire group.
1. Why are coupons distributed - Increase sales, introduce new items.
2. What do coupons represent to customer? - Value in terms of savings on merchandise.
3. What merchandise must the customer purchase to get this value? - Only merchandise the coupon calls for.
4. Is there any exception to this policy? - Never.
5. What is the difference between four redeemed coupons worth $.25 each and a $1.00 bill? - Worth equal to the company.
6. Then we should handle redeemed coupons as cash.
7. Do all coupons you receive have the same value? No.
8. How many coupons do you receive on any one sale? - Varies.
9. If you receive more than one coupon from a customer, how can you make sure you will compute the correct value of coupons? - Write it down.

II. Demonstrate to entire group handling of coupons.
1. Assemble order - Look for coupon merchandise.
2. If order contains coupon merchandise, ask customer for coupons.
3. Ring entire order.
4. Call out total amount of sale.
5. Collect full amount of sale, cash and coupons - More than one coupon, write down and total.
6. Place cash and coupons in till - Coupons under $2.00 bills.

15. INSTRUCTION ON SACKING

16. SACKING PRACTICE - EXERCISE 8, 9, and 10

I. Sacking.

A. Demonstrate with entire group on:
1. Cost of bags - Expensive.
2. Location of bags.
3. Size of bags.
4. Heavy items on bottom - slide in horizontally, distribute between bags.
5. Medium weight items in middle - Bag upright, use two hands.
6. Crushables in top - In top, Not on top.
7. Push to customer - Save extra lift.

II. Assign two trainees to ring register exercised 8-9-10 on register.

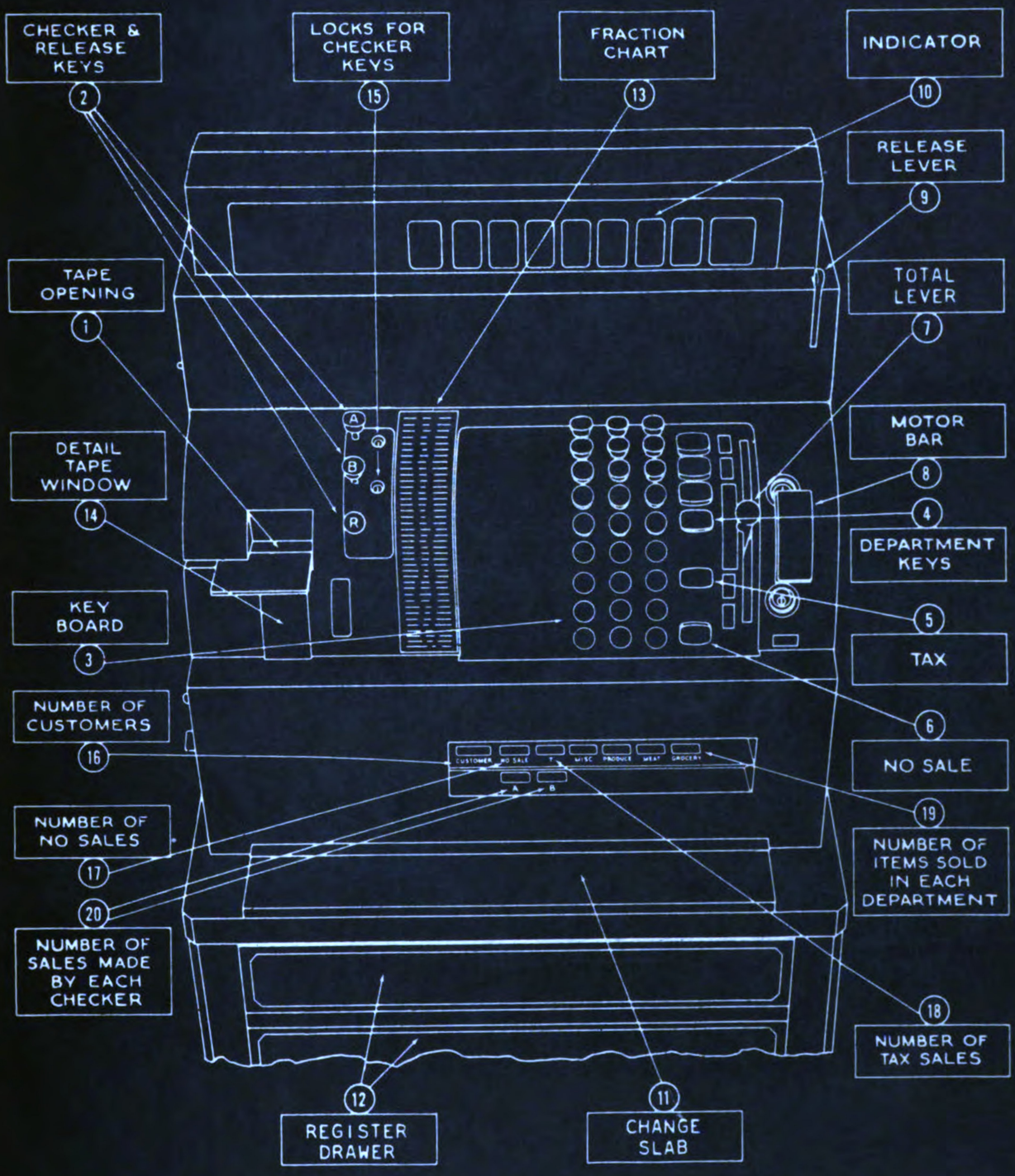
A. Use exercise 8-9-10.
1. Give each card with column totals - Use same identification key.
2. Have each run sub-total and total on each column - Correct tape face up.
3. Have each call you when answer is incorrect - Find out why, instruct on how to avoid.
4. Have each ring exercise until others have finished sacking.

III. Sacking.

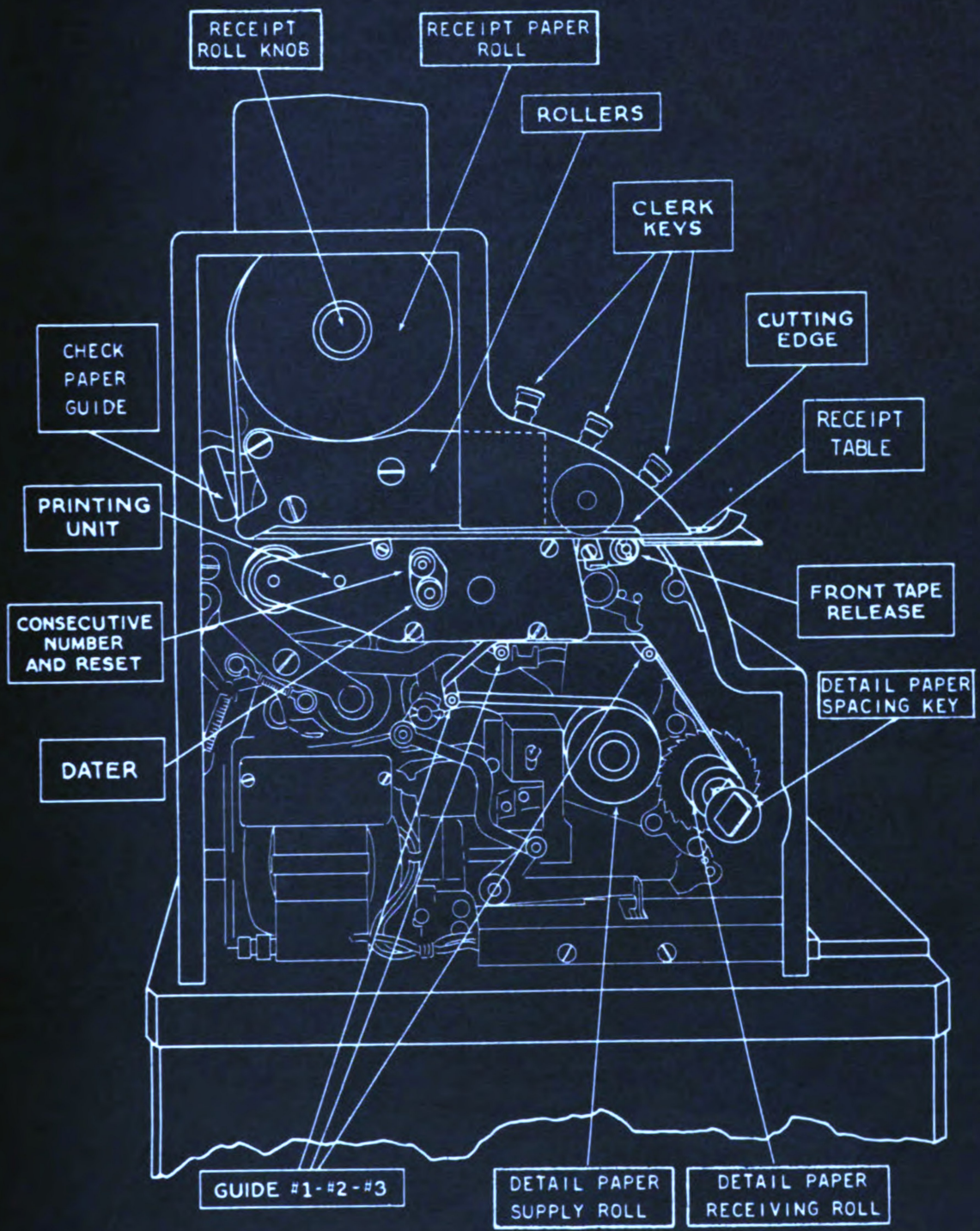
A. Have two trainees bag three sample orders.
1. Have each trainee bag orders - Assemble first.
2. Reverse role, repeat above, one to unsack, look for errors.
3. Repeat with slow trainees.

IV. Check to see trainees on register are using correct fingers, while others are sacking.

V. Have trainees reverse positions when register drill is finished - Watch use of fingers, size of bag, heavy merchandise on bottom.

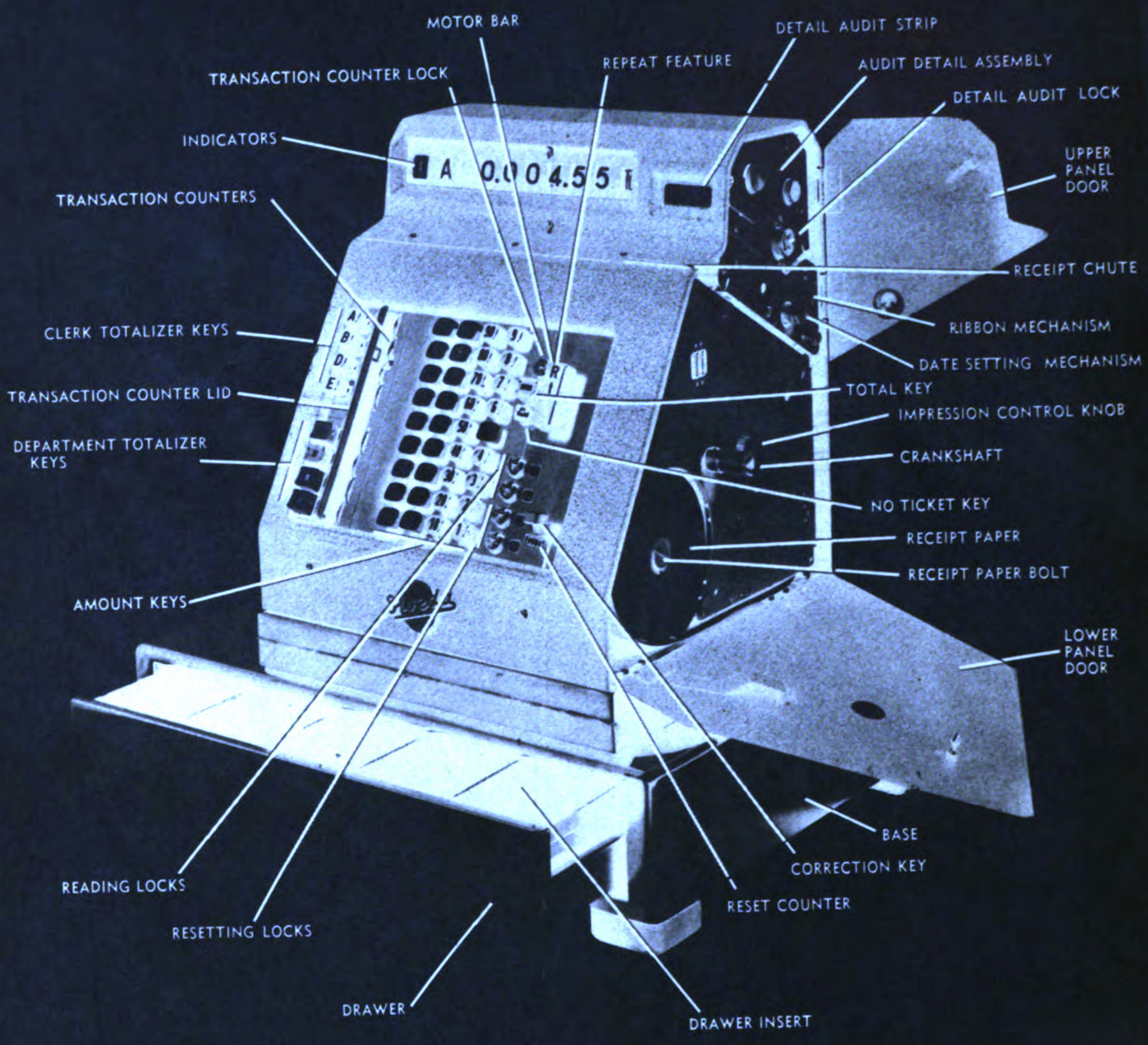


Cash Register - front view



Cash Register - side view (open)

Cash Register - key board



LOCATION AND NOMENCLATURE OF SWEDA FEATURES

Your Sweda Cash Register. Sweda Cash Register, Incorporated, Chicago, Illinois.