

*Fascinating*  
FIGURE  
PUZZLES

# *Fascinating Figure Puzzles*

*Compiled by*  
FREDERICK W. DAVIS, A. A.  
*or the Burroughs Adding Machine Company*

COPYRIGHT 1933

# Burroughs

Figure 1

### 1. ONE IN SUBTRACTION.

2. ONE IN ADDITION.

Note: This is usually done by using fractions, but it can be done without.

### 3. THE BOTTLE AND THE CORK. (ONE IN ALGEBRA.)

A bottle and a cork cost \$1.10. The bottle cost \$1.00 more than the cork. What did each cost?

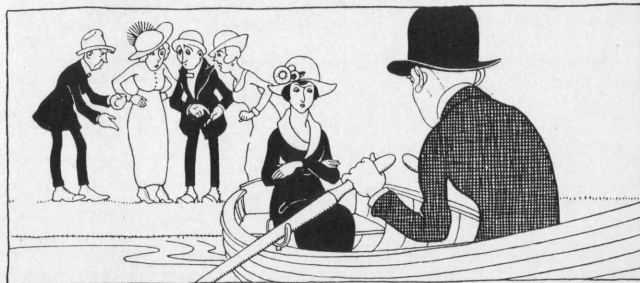
#### 4. THE HORSE QUESTION. AN EXAMPLE IN PRESENT WORTH.

A man sold a horse for \$90, bought him back for \$80, and resold him for \$100. What did he make on the transactions?

### 5. THE THREE JEALOUS MEN AND THEIR WIVES.

Three men, traveling with their wives, came to a river which they wished to cross. There was but one boat, and but two could cross at one time; and, since the husbands were jealous, no woman could be with a man unless her own husband was present. In what manner did they get across the river?

Note: Simple as this question may appear, it is found in the works of Alcuin who flourished a thousand years ago; hundreds of years before the art of printing was invented.—Parke.



## "She Can't Vamp My Husband"

6. THE IMPECUNIOUS MAN AND THE PHILANTHROPIC MERCHANTS.

A man goes into a store and says to the proprietor: "Give me as much money as I have with me and I will spend \$10.00 with you." It is done, and the man repeats the operation in a second and a third store, after which he has no money left.

How much did he start with?

7. IN THE MONTHS WITHOUT THE "R," CLAMS A DEADLY PIZON ARE!

Two men, stopping at an oyster saloon, laid a wager as to which could eat the more oysters. One ate ninety-nine, and the other ate a hundred and won. How many did both eat?

8. THE SQUIRREL AND THE EARS.

Six ears of corn are in a hollow stump. How long will it take a squirrel to carry them all out, if he takes out three ears a day?

9. MENTAL TELEPATHY.

Show a person the dial of your watch and ask him to think of a certain hour. Then point, or tap on the dial, and at each tap he will silently add ONE to the number of the hour he has selected until he arrives at TWENTY. On that tap he will stop me and my pencil should be resting on the hour he first selected.

10. THE INEVITABLE ANSWERS.

Ask a person to write three numbers (high ones) in a line, thus.....

Then ask him to reverse them, and place below the first three.....

|                                 |     |
|---------------------------------|-----|
| Subtract them.....              | 297 |
| Reverse them again and add..... | 792 |

On high numbers the answer will always be..... 1089  
Why is the answer always 1089 when it is not 198?

11. THE CATS AND THE RATS.

If three cats can catch three rats in three minutes, how many cats can catch one hundred rats in one hundred minutes?

12. AN UNMANAGEABLE LEGACY.

An old farmer left a will whereby he bequeathed his horses to his three sons, John, James and William, in the following proportions: John, the eldest was to have one-half, James to have one-third, and William one-ninth. When he died, however, it



"How are we going to give John eight horses and a half?"

was found that the number of horses in his stable was seventeen, a number which is divisible neither by two, by three, nor by nine. In their perplexity the three brothers consulted a clever lawyer, who hit on a scheme whereby the intentions of the testator were carried out to the satisfaction of all parties.

How was it managed?

13. THE LUCKY NUMBER.

Many persons have what they consider a "lucky" number. Show such a person the row of figures subjoined:

1, 2, 3, 4, 5, 6, 7, 9 (consisting of the numerals from 1 to 9 inclusive, with the 8 only omitted), and inquire what is his lucky, or favorite number. He names any number he pleases from 1 to 9, say 7. You reply that, as he is fond of seven, he shall have plenty of them, and accordingly proceed to multiply the series given above by such a number that the resulting product consists of sevens only.

It is required to find (for each number that may be selected) the multiplier which will produce the above result.

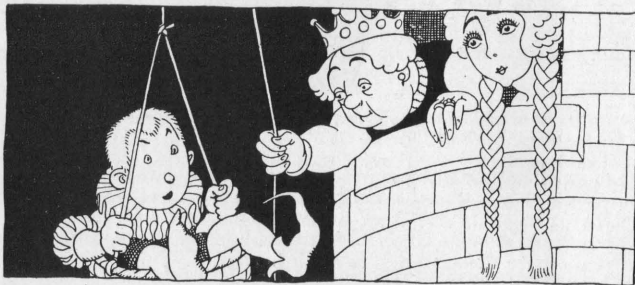
## 14. THE SHEPHERD AND HIS SHEEP.

A shepherd was asked how many sheep he had in his flock. He replied that he could not say, but he knew if he counted them by twos, by threes, by fours, by fives, or by sixes, there was always one over, but if he counted them by sevens there was none over.

What is the smallest number which will answer the above conditions?

## 15. THE ROYAL DESCENDANTS.

An elderly queen, her daughter, and little son, weighing 195 pounds, 105 pounds, and 90 pounds respectively, were kept prisoners at the top of a high tower. The only communication with the ground below was a rope passing over a pulley, with



"Hold on tight, Son!"

a basket at each end, and so arranged that when one basket rested on the ground the other was opposite the window. Naturally if the one were more heavily loaded than the other, the heavier would descend; but if the excess on either side was more than 15 pounds, the descent became so rapid as to be dangerous, and from the position of the rope the captives could not check it with their hands. The only thing available to help them in the tower was a cannon-ball, weighing 75 pounds. They, notwithstanding, contrived to escape.

How did they manage it?

## 16. THE RESTLESS FAMILY.

In how many ways may a family of ten persons seat themselves differently at dinner?



"Let's all change places"

## 17. A DIFFICULT PROBLEM IN DIVISION. (SINCE JULY 1, 1919.)

Two men have 24 ounces of whiskey, which they wish to divide between themselves equally. How shall they effect the division, provided they have only three vessels, one containing 5 ounces, the other 11 ounces, and the third 13 ounces?

## 18. CAN YOU ESTIMATE THE WEIGHT OF COAL IN YOUR COAL BIN?

Note: A cubic foot of anthracite coal, before it is prepared for domestic use, will on an average weigh about 93 pounds. When broken for the market it will average about 54 pounds.

Rule: Multiply the contents in cubic feet by 54, for anthracite, or by 50 for bituminous coal, and the product will be the weight in pounds.

How many tons of anthracite coal, of 2000 lbs. each, can be stored in a bin 28 ft. long, 20 ft. wide, and 4 ft. deep?

The above rule is a useful one to know for anyone who may be moving away and leaving a certain amount of coal in the cellar to be sold to the new tenant.



19. PERMUTATION.

How many changes can be made in the arrangement of 5 grains of corn, all of different colors, laid on a row?

20. THE MENAGERIE.

The proprietor of a menagerie was asked how many birds and how many beasts it included. He replied, "Well, the lot have 36 heads and 100 feet."

How many of each were there?

21. ONE IN FRACTIONS.

What three figures, multiplied by 4, will make precisely 5?

22. AN EASY ONE?

How may 100 be expressed with four nines?

23. THE UNWELCOME EIGHT.

Write 24 with three equal figures, none of them being 8.

24. A LITTLE PUZZLER.

What is the third and a half of a third and a half of ten?

25. MAGIC SQUARES.

These are very interesting, and have engaged the attention of some of our greatest mathematicians, among whom we may mention Leibnitz, Stifels, etc. The methods of arrangement given in the back of this booklet are by no means the only ones that may be used.

How may the nine digits(1, 2, 3, 4, 5, 6, 7, 8, 9,) be arranged in a rectangular form, so that the sum of any row, whether vertical, or diagonal, or horizontal, shall equal 15?

26. A MATTER OF ARRANGEMENT.

How may the first 16 digits be arranged, so that the sum of the vertical, and the horizontal, and the two oblique rows may equal 34?

27. WHERE NINE MAKES TEN.

Put down four marks and then require a person to put down five more marks and make ten.

28. FIGURE IT OUT.

Two-thirds of six is nine, one-half of twelve is seven. The half of five is four, and six is half of eleven.

29. PERHAPS YOU CAN BORROW IT.

Take ten pieces of money, lay them in a row, and require someone to put them together in heaps, 2 in each, by passing each piece over 2 others.

30. RURAL ECONOMICS.

A farmer sent his three daughters to the market to sell apples. The eldest had 50, the second daughter 30, and the youngest 10.



"Who'll buy our apples?"

The farmer jokingly told them all to sell at the same price, and bring home the same amount of money, and, to his surprise, they actually did so.

How did they manage it?

31. THE EXPUNGED NUMERALS.

Given, the following sum in addition:

$$\begin{array}{r} 111 \\ 777 \\ 999 \\ \hline \end{array}$$

Required, to strike out six of these numbers, so that the total of the remaining numbers shall be 20 only.

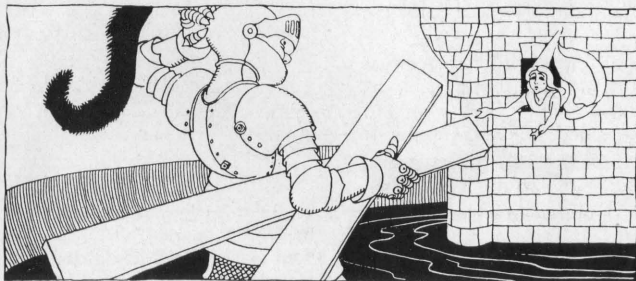
## 32. ONE FOR BRIDGE WHIST PLAYERS.

A friendly circle of twenty-one persons agreed to meet each week, five at a time, for an evening of bridge whist, so long as they could do so without forming exactly the same party on any two occasions.

As a central room had to be hired, it was important to have some idea as to the length of time for which they would require it. How long could they keep up their weekly meetings?

## 33. ONE FOR THE MOAT-ORIST.

In ancient times it was customary to have a moat around a castle to protect it from robbers and invaders. A man once had a square moat twenty feet wide surrounding his castle. The common way of getting into his castle from the road



"Oh, for an Aeroplane!"

was to cross a drawbridge. One day the drawbridge failed to work and the man found the only means of reaching the inside of his castle was by the aid of two planks, one 19 feet long and the other  $19\frac{1}{2}$  feet long. He could not splice or nail the planks together. How did he arrange them so as to span the moat and allow himself to enter his castle?

## 34. MENTAL TELEPATHY.

Think of any three numbers less than 10. Multiply the first number by 2, and add 5 to the product. Multiply this sum by 5, and add the second number to the product. Multiply this last result by 10, and add in the third number to the product. Tell me the answer you have obtained and I will name the number you first thought of and in the order in which they were thought of.

## 35. A DANGEROUS WAY TO BUY SHOES.

A man went into a store and purchased a pair of shoes worth \$5, handing over a \$50 bill to pay for them. The merchant, not being able to make the change, crossed the street and asked a friend to give him change. He then returned and gave the stranger the shoes and his change. After the purchaser of the boots had been gone a few hours, the friend, finding the bill to be a counterfeit, returned and demanded \$50 in good money from the merchant. Of course, the merchant gave it to him. How much did he lose by the operation?

## 36. THE PERSISTENT DIGITS.

What number added to itself one or several times will give a total having the same digits as that number but differently arranged, and after the sixth addition will give a total all nines?

## 37. A PROBLEM IN WAGES.

Suppose you were offered a job and were promised one cent for the first day's work, double that or two cents for the second day, four for the third, and so on for every day in the month. Would you take the job? Figure it out on a Burroughs.

## Answers

$$\begin{array}{r}
 1. \quad 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 45 \\
 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 = 45 \\
 \hline
 8 + 6 + 4 + 1 + 9 + 7 + 5 + 3 + 2 = 45
 \end{array}$$

2. There are several ways of meeting the conditions of this puzzle, among which may be mentioned the following:

$$\begin{array}{rcl}
 1 \frac{3}{6} + 98 \frac{27}{54} + 0 & = & 100 \\
 15 & & 70 + 24 \frac{9}{18} + 5 \frac{3}{6} = 100 \\
 36 & & \\
 80 \frac{27}{54} + 19 \frac{3}{6} & = & 100 \\
 47 & & 87 = 9 \frac{4}{5} + 3 \frac{12}{60} = 100 \\
 98 & & \\
 2 & & \\
 \hline
 100 & &
 \end{array}$$

$$9 \times 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 100$$

3. \$1.05 and .05

4. \$20; had \$90 at first, \$110 at last.

5. Let A and wife go over, let A return. Let B's and C's wives go over, A's wife returns. B and C go over; B and wife return. A and B go over, C's wife returns, and A's and B's wives go over then C comes back for his wife. NOTE: This puzzle is made interesting for children if a little paper boat can be made, with matches and beans to represent the husbands and wives.

6. \$8.75.

7. The "catch" in this problem is the "hundred and won." When this is repeated it sounds as if it meant "one ate 99 and the other ate 101;" hence the answer usually given is 200. The correct result, of course, is 199.

8. The "catch" in this problem is in the word "ears." He carries out two ears on his head (his own) and one ear of corn each day; hence it will take him six days.



9. The method used in executing this trick is as follows: Point promiscuously about the face of the watch until the eighth tap, which should be upon "12;" and then pass regularly around, towards "11," to the left, pointing at "11," "10," "9," etc., until "twenty" is called, when, as may be easily shown, pointer will be over the number selected.

10. This is a peculiar feature of the digits 1 to 9. Try it yourself on various numbers and write your own explanation. The "casting out of 9's" or the divisibility by 9 enters into the solution.

11. The same three cats!

12. The lawyer had a horse of his own which he drove into the stable with the rest. "Now," he said to John, "take your half." John took nine horses accordingly. James and William were then invited to take their shares, which they did, receiving six and two horses respectively. This division exactly disposed of the seventeen horses of the testator, and the lawyer, pocketing his fee, drove his own steed home again.

NOTE: The above solution rests on the fact that the sum of the three fractions named,  $\frac{1}{2}$ ,  $\frac{1}{3}$  and  $\frac{1}{9}$ , when reduced to a common denominator, will be found not to amount to unity, but only to  $\frac{17}{18}$ . The addition of another horse ( $\frac{1}{18}$ ) bringing the total number up to eighteen, renders it divisible by such common denominator, and enables each to get his proper share, the lawyer, then resuming his own  $\frac{1}{18}$ , which he had lent for the purpose of the division.

It is not generally known, but in the administration of the Mohammedan Law of Inheritance, which often involves numerous and complicated fractions, this expedient is frequently employed.

13. Multiply the selected number by NINE, and use the product as the multiplier for the large number. It will be found that the results will be respectively as follows:

$$1234567 \ 9 \times \ 9 \text{ (if 1 is selected)} = 111 \ 111 \ 111$$

$$1234567 \ 9 \times 18 \text{ (if 2 is selected)} = 222 \ 222 \ 222$$

$$1234567 \ 9 \times 27 \text{ (if 3 is selected)} = 333 \ 333 \ 333$$

and so on down the line the next multipliers being 36, 45, 54, 63, 72, 81. It will be observed that the result in each case is the "lucky" number, nine times repeated. This may be nicely illustrated on a Burroughs.

14. To ascertain the number of the flock, find in the first place the least common multiple of 2, 3, 4, 5, and 6—i. e. 60. Then take the lowest multiple of this, which, with 1 added, will be divisible by 7. This will be found to be 301, which is the correct answer.

15. The boy descended first, using the cannon-ball as a counterpoise. The queen and her daughter then took the cannon-ball out of the upper basket, and the daughter descended, the boy acting as a counterpoise. The cannon-ball was then allowed to run down alone. When it reached the ground, the daughter got into the basket along with the cannon-ball, and their joint weight acted as a counterpoise while the queen descended. The princess got out, and the cannon-ball was sent down alone. The boy then went down, the cannon-ball ascending. The daughter removed the cannon-ball and went down alone, her brother ascending. The latter then put the cannon-ball in the opposite basket, and lowered himself to the ground.

16. Answer: 3,628,800. When we consider that this would require a period of over 9935 years, (one meal a day) the mind is lost in astonishment. We are inclined to wonder if there is not some mistake; and yet on just such chances as this one do gamblers constantly risk their money!

17. The easiest way would probably be to first fill up the 13 oz. measure. Pour it into the 11 oz. measure, which would leave 2 oz. in the 13 oz. measure. Then add two 5 oz. measures to the 2 oz. This leaves one ounce in the jug for the other man.

18. Answer:  $28 \times 20 \times 4 \times 54 \div 2000 = 60.48$  tons.

19. Rule: To determine the number of permutations, commence with unity and multiply by the successive terms of the natural series 1, 2, 3, etc., until the highest multiplier shall express the number of individual things. The last product will indicate the number of possible changes.

Answer to the Corn Question:

$$1 \times 2 \times 3 \times 4 \times 5 = 120$$

This may seem improbable, the number being so great, but if there were but a single grain more, the possible changes would be 720; and another would extend the limit to 5040; and so on in a constantly increasing ratio.

20. There being 36 heads (i. e. 36 creatures in all), if all had been birds they would have had 72 feet. If all had been beasts, they would have had 144 feet. It is clear, therefore, that there were some of each. Suppose the numbers were equal, the feet would then count as units:

18 birds: 36 feet

18 beasts: 72 feet

36            108 feet (being an excess of 8 over the stated number.) Each bird added to the "bird" half (involving at the same time the deduction therefrom of one beast) produces a diminution of 2 in the number of feet. As the equal division gives an excess of 8 feet, we must therefore deduct 4 beasts and add 4 birds.

This gives us  $18 + 4 = 22$  birds, having 44 feet.

$18 - 4 = 14$  beasts, having 56 feet.

36

100

21. Answer:  $1 \frac{1}{4}$  or 1.25

22. Answer: 99  $\frac{9}{9}$

23. Answer:  $22 + 2 = 24$ , or  $3^3 - 3 = 24$ .

24.  $2 \frac{1}{2}$ .

25. 

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 8 | 1 | 6 | 2 | 9 | 4 |
| 3 | 5 | 7 | 7 | 5 | 3 |
| 4 | 9 | 2 | 6 | 1 | 8 |

26. 

|    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 15 | 14 | 4  | 1  | 14 | 15 | 4  | 1  | 12 | 13 | 8  |
| 12 | 6  | 7  | 9  | 8  | 11 | 10 | 5  | 15 | 6  | 3  | 10 |
| 8  | 10 | 11 | 5  | 12 | 7  | 6  | 9  | 4  | 9  | 16 | 5  |
| 13 | 3  | 2  | 16 | 13 | 2  | 3  | 16 | 14 | 7  | 2  | 11 |

Many years ago during its temporary "boom," hundreds of thousands of people racked their brains over the solution of the "Thirty-four Puzzle." Many solutions were given, but numerous as they were, they were but a drop in the bucket compared with the number of combinations (amounting to over 20 billions, say the mathematicians) of which 16 given articles are capable. In each of the above instances the number 34 can be counted in ten different directions, viz.: four horizontal, four perpendicular and two diagonal.

27. Here are the four marks you put down: 1111

Here are the five more, making ten: TEN

28. Solution: Two thirds of SIX is IX; the upper half of XII is VII; the half of FIVE is IV; and the upper half of XI is VI.

29. Method: Let the pieces be represented by the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Place 7 on 10, 5 on 2, 3 on 8, 1 on 4, and 9 on 6.

30. They began selling at the rate of seven for two cents, the first selling 14 cents worth, the second eight, and the youngest two cents worth. But they had saved the choicest of the fruit, the first having one apple left, the second two, and the youngest three. Meeting a liberal customer, they sold these at six cents each, and the respective amounts received by them were therefore as follows:

The first,  $14c + 6c = 20c$

The second,  $8c + 12c = 20c$

The third,  $2c + 18c = 20c$

31. Strike out the first figure of the top row, the whole of the second row, and the two first figures of the last row: The sum will stand as follows:

|     |
|-----|
| .11 |
| ... |
| ..9 |
| —   |
| 20  |

32. The friendly circle of 21 friends who agreed to meet each week five at a time for whilst, so long as the same party did not meet more than once, and who wished to hire a central hall for this purpose, would need it for no less than 20,349 weeks, or more than 390 years to carry out their plan. (Note: Although he believed in immortality, the landlord decided he did not care to execute a lease for this length of time!)

33. The man simply laid down one of his planks across a corner of the moat, and placing the other plank upon it was enabled to span the intervening distance and walk safely over to the castle.

# FASCINATING FIGURE PUZZLES

34. You subtract the number 250 from the product which may be given you, and the remainder is always the first three numbers thought of and in the order in which they were thought of. A concrete example, done on a Burroughs, is the best illustration, as follows: \*

Suppose I think of the three numbers 732. I multiply the first one, 7 by 2 as follows:.....

7  
7

I add 5 to the product.....

14 s

I multiply the sum by 5.....

19 s

19

19

19

19

95

I add in the second figure thought of.....

3

I multiply this last result by 10 by simply annexing a cipher.....

98 \*

980

I add in the third figure thought of.....

2

982 s

I now subtract 250 as follows.....

250 -

And my answer is.....

732 \*

The number thought of at first.

35. At first glance some say \$45 and the shoes; some, \$50 and the shoes; some, \$95 and the shoes; and still others, \$100 and the shoes. Which do you say?

Correct answer is \$45 and the shoes.

# FASCINATING FIGURE PUZZLES

36. The reciprocal of 7, which is .142857, if added to itself will give a sum in which the same digits appear but differently arranged. The work is shown here as done on a Burroughs. Notice that each "sub-total" contains the same digits as the first number, and in the sixth addition you get all nines.

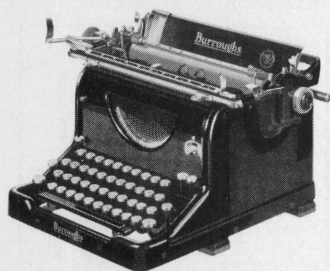
1,428.57 \*  
1,428.57  
2,857.14 s  
1,428.57  
4,285.71 s  
1,428.57  
5,714.28 s  
1,428.57  
7,142.85 s  
1,428.57  
8,571.42 s  
1,428.57  
9,999.99 \*

37. Here is what doubling wages every day amounts to in a month, starting with a cent the first day:

|       |                 |   |
|-------|-----------------|---|
| MAR 1 | 1               | * |
| 2     | 2               |   |
| 3     | 4               |   |
| 4     | 8               |   |
| 5     | 16              |   |
| 6     | 32              |   |
| 7     | 64              |   |
| 8     | 128             |   |
| 9     | 256             |   |
| 10    | 512             |   |
| 11    | 1,024           |   |
| 12    | 2,048           |   |
| 13    | 4,096           |   |
| 14    | 8,192           |   |
| 15    | 16,384          |   |
| 16    | 32,768          |   |
| 17    | 65,536          |   |
| 18    | 1,310,720       |   |
| 19    | 2,621,440       |   |
| 20    | 5,242,880       |   |
| 21    | 10,485,760      |   |
| 22    | 20,971,520      |   |
| 23    | 41,943,040      |   |
| 24    | 83,886,080      |   |
| 25    | 167,772,160     |   |
| 26    | 335,544,320     |   |
| 27    | 671,088,640     |   |
| 28    | 1,342,177,280   |   |
| 29    | 2,684,354,560   |   |
| 30    | 5,368,709,120   |   |
| 31    | 10,737,418,240  |   |
|       | 21,474,836,47 * |   |

## Burroughs Standard Typewriter

Two years ago Burroughs created a sensation by introducing a typewriter of new design and high quality construction. Since then it has won nation-wide approval.



Burroughs silenced construction eliminates much of the noise common to standard typewriter operation without sacrificing standard operating features and sturdiness. Many new models and features including the built-in stroke counter for measuring operator efficiency. This superior machine is offered at standard typewriter prices.

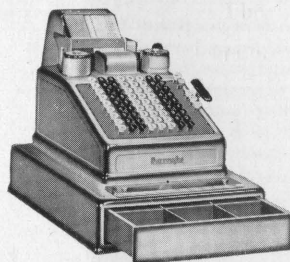
## The Electric Carriage Typewriter

Here is the most important contribution to typewriter operation in more than a decade. A typewriter in which an electric motor (built within the typewriter case) does all the heavy work—returning the carriage, spacing automatically to the next writing line, and shifting to capitals. The keyboard is standard. There is no new touch to learn. This typewriter permits a uniformity of operation that provides greater speed, reduced fatigue and increased production.



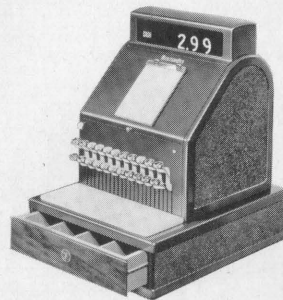
## Burroughs Cash Machine

A distinct advance in registering and safeguarding transactions. Compact, requires little counter space. Exceptionally fast and simple in operation. Can always be used as a standard adding machine without interfering with its cash registering functions or affecting the accumulated, locked-in totals. The Burroughs Cash Machine is built in sizes and styles to meet specific business requirements. Various colors and finishes to harmonize with store surroundings.



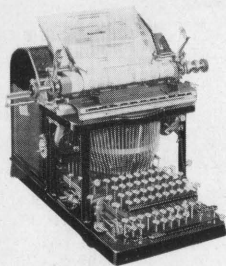
## Burroughs Cash Register

The Burroughs Cash Register, designed for cash registering use only, offers many decidedly new advantages. Its light key touch—unique in cash registers—permits a speed and ease of operation that will enable clerks to serve customers with greater rapidity and increased satisfaction. Its exceptionally large commercial indication is visible for a long distance as well as from wide angles. The cash drawer is rigidly constructed yet slides so easily that it requires but the slightest pressure of the little finger to close the drawer. Many other new, unusual features.





# There's a Burroughs Machine for Every Accounting Requirement

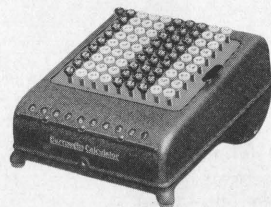


## TYPEWRITER ACCOUNTING MACHINES

For all commercial and bank accounting work requiring typewritten description. Posts any combination of related records in one operation. Wide selection including machines that accumulate a large number of totals, and the new Burroughs *Automatic Typewriter Book-keeping Machine*.

## ELECTRIC CALCULATORS

An electrically operated non-listing machine for all rapid adding, subtracting, multiplying and dividing. Has an exceedingly light and perfectly uniform key stroke for all keys. Made in nine and thirteen column sizes. Also built for hand operation in these sizes.

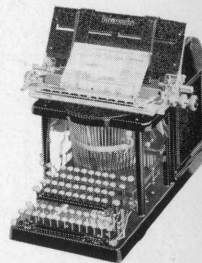


## DESK ADDING MACHINES IN A WIDE RANGE OF STYLES AND SIZES

Six, eight and ten column adding, duplex-adding, and adding-subtracting Desk Machines. Wide or narrow carriages. Hand or electric operation, including the newest development—*plus* and *minus* motor bars.

## TYPEWRITER BILLING MACHINES

The only machine that writes and computes a complete invoice in one operation including all typing, extending, discounting and totaling of the bill. Extensions computed by direct multiplication. Extensions and results are printed by the depression of a single key.

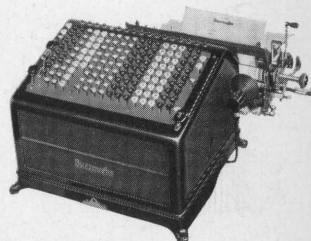


## DUPLEX ADDING MACHINES

Burroughs duplex adding and listing machines provide separate net totals of any number of groups of figures and a grand total of all without relisting. Made in a wide variety of styles and capacities for commercial and bank use.

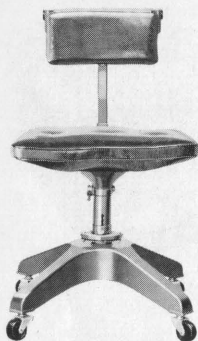
## ACCOUNTING MACHINES

Burroughs Multiple Register Accounting Machine in styles for commercial and bank use. Equipped with front feed carriage. Posts several related records in one operation, provides full-width journal and establishes figure proofs.





# Correct-Posture Chairs



Low Type

that will withstand long, hard usage.

All adjustments are made without tools and are so easy that a girl can make them without assistance.



Executives' Chair

A Correct-Posture Chair with advantages that are appreciated alike by employer and employee. To the office or factory worker, it provides *effortless* correct seating in a comfortable, healthful, fatigue-resisting position. To the employer, it offers not only the advantage of more efficient work from employees who are seated correctly, but also the economy of an all-metal chair



High Type

The chair revolves on a ball-bearing swivel, an exclusive feature that permits easy movement of the body. The single post design for the back rest permits free unhampered action of the arms.

High or low styles with special style for executives. Finished in a variety of colors. Removable cushions of high grade imitation leather, tapestry, or genuine leather, in various colors.