SUNDSTRAND
ADDING & FIGURING — MACHINE —

Book of General Instructions

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Sundstrand
ADDING AND CALCULATING MACHINE

Sundstrand Adding Machine Co.
Rockford,   Illinois.

That every operator of the SUNDSTRAND Adding and Calculating machine may be in a position to use his machine to the fullest extent, this book is written.

In it you will find not only useful information on the operation of the Sundstrand but helpful hints on its care.

The SUNDSTRAND is more than a mere adding machine—it is a figuring machine to the fullest extent. With it you may add, multiply, subtract, divide with surprising ease and unfailing accuracy.

Sundstrand Adding Machine Co.
Rockford, Illinois, U. S. A.
Sales Offices and Service Stations Everywhere

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How to Operate
The Sundstrand Figuring Machine

The SUNDSTRAND operates with easy speed and accuracy. It is the simple, logical, *natural way* of figuring. It is the machine with the sure footing.

Writing figures on the SUNDSTRAND is just like writing them on paper with a pencil. Simply write them in the proper order, reading from left to right, the machine *automatically* places them in the proper column.

Just ten keys

That's all there are, for there are only ten numerals, and that's all are needed to write figures on the SUNDSTRAND. With those versatile ten numerals you may write any number, figure any problem, no matter how complex.

To properly place figures in machine

First clear the machine before beginning any problem. To do so, merely pull the handle, tapping the total key with the thumb as the handle is brought forward the second time. This prints a square signal upon the paper tape in RED.

To add

If the first figure is twelve dollars and thirty-four cents—press the keys 1-2-3 and 4. Pull the handle and you have printed, on the tape, 12.34. Your next item is eighty-nine dollars and seventy-five cents—press keys 8-9-7-5, pull handle, and the tape shows 89.75. Pull handle again—which is the same as drawing a line with a pencil—only on the SUNDSTRAND it gives you a blank space. Another pull of the handle and you print the total of the two items in red. You will read on the tape 102.09.

Sub-total in red is automatic

You get a sub-total in red without pressing any special key. Simply an extra pull of the handle gives you a sub-total on the SUNDSTRAND. A sub-total printed in red.

Grand total and clear machine

To clear machine—get a grand total in red—pull handle once which will give you a blank space—pull again, and when handle is clear down tap the red key marked "TOTAL" with the thumb. This will clear the machine and print on the tape a grand total in red.

One hand operation makes work easier

After you have mastered the SUNDSTRAND touch system of writing figures, you will readily see that it is possible to do all of your figure work with one hand.

Operating the SUNDSTRAND keyboard with the right hand and pulling the short quick-acting handle with the right hand, leaves the left hand free to follow down a column of figures, to handle papers, or turn the leaves of a book.

This one hand operation of the SUNDSTRAND is a truly important feature, and, together with the easy touch method of writing makes the SUNDSTRAND Figuring Machine the prime favorite with office workers everywhere.

Touch writing instructions will be found on pages 12, 13, 14. Be sure to study this better method of machine figuring. You will master it very easily because the SUNDSTRAND scientific keyboard is especially fitted for faster operation.

Clearing the Machine

The better keyboard and why

The SUNDSTRAND keyboard is not an untried experiment but an accepted improvement wherever it is examined and used.

The ten keys are made for greater speed and accuracy. The extreme ease of operation gets the office worker through the day with less strain and fatigue.

Because of the natural arrangement of the SUNDSTRAND keyboard, the touch system of writing is a true reality.

An average office worker, after a glimpse of the SUNDSTRAND keyboard, could be blindfolded and still pick out the correct figures. Make this test yourself, and you will see that the SUNDSTRAND scientific keyboard is really the natural keyboard. Natural because the fingers and brain just naturally follow the key arrangement.

You will notice the 4, 5, and 6 keys, or the middle row, are cupped out more than the upper and lower row. This makes it easy to "feel" the position of your fingers.

Study the touch method of writing figures on the SUNDSTRAND and your figure work will be easier and faster than you ever thought possible with a mere machine.

See how naturally the human hand conforms to the Sundstrand keyboard

Explanation of SUNDSTRAND keyboard—the natural keyboard

There are two styles of SUNDSTRAND keyboards. One with three feature keys which is termed the "stripped" keyboard—and the "full" keyboard, or board having all six feature keys.

The numerical keys on all SUNDSTRAND boards are the same—the only difference is in the "feature" or red keys.

TRY THEM HERE—*with your own fingers*

Sundstrand has but ten keys—one for each numeral, that's all there are, that's all are needed. Arranged in the logical, *Natural Way* for three finger touch method operation. Try the keys above with your own hands. On the machine the center row of keys—4-5-6 are slightly hollowed to give an *immediate* guide. Notice the keys are in the proper sequence—0-1-2-3-4-5 6-7-8-9. Strike the 1-4-7 with the first finger, strike 2-5-8 with second finger, strike 3-6-9 with third finger. What could be more natural—more simple. It is simplicity itself. It is the secret of the success of the SUNDSTRAND Figuring Machine.

Type of "Stripped" Keyboard on Models A B-S C-S.

Feature keys are:

TOTAL:— Used to clear machine and get a grand total. Grand total always printed in red and shows a clear signal.

The total key on the SUNDSTRAND is operated with the thumb of the right hand—at the same time handle is pulled down.

Type of "Full" Keyboard on Models B and C.

This leaves the left hand free to follow column of figures or handle papers.

NON ADD KEY:—Used when you want to print a figure but do not want to add it in. Hold down the non-add key, pull handle and you will print the figure in blue with signal to right, but machine will not add figure in total.

The non-add key is also used with the non-print key to correct after an item has been set in machine and handle has been pulled clear down.

LOCK KEY:—To make machine safe against tampering fingers, we have added a lock key. Lock machine when you have to leave it with uncompleted figures.

If you are called away and it is necessary to leave figures in machine, you can press the lock-key. This locks all keys and serves as a warning signal to everyone that the machine is to be let alone.

REPEAT KEY:—To repeat the same item a number of times, without re-setting, it is only necessary to press down the Repeat Key. This feature key is used in multiplication, and the chapter on multiplication covers fully. See page 26.
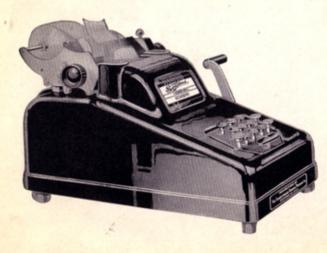
ERROR:—Used to correct one unit at a time. Pressing the error key will move the arrow in digit indicator to the left. Try it and you will understand the action of the error key immediately. See page 11 for other methods of correction.

Error key is also used in multiplying from left to right and division. See special chapter on this. See pages 27 and 31.

NON-PRINT:—Used to add but not print. If the non-print key is pressed and held down while handle is pulled clear down, the machine will add the item set but will not print on tape.

Used in subtraction when putting in complementary figures.

Also to correct an item after the handle has been pulled clear down. See special chapter on correction on page 11.

Illustrating a "Stripped" key board— nine bank— 5" carriage.

Aside from the regular large figures, you will notice small figures on each key.

For instance, on the cipher key you will see a small 9—on the "one" key a small 8—on the "two" key a small 7—and so on.

These small figures are called complements, and are used in subtraction. For rules covering use of small figures, or complements, see page 30.

Digit Indicator

The SUNDSTRAND Digit Indicator tells the operator instantly how many units are set up in the machine.

The arrow moves along one place for every figure key depressed. Thus, if you write one hundred twenty-six, the indicator arrow will point to three.

Digit Indicator is also a great help in multiplying from left to right —see examples on page 27.
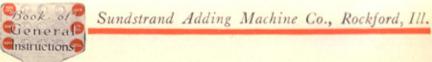

In correcting with the error key, the digit indicator is helpful because you can see the arrow move along to the left (toward zero) as you take out the units one at a time with the error key.

Digit indicator on nine bank machine.

In correcting with a slight pull of the handle you can see the indicator arrow fly back to zero, which indicates there are no figures set in machine. You will read more of these correction features in following pages.

Indicator illustrated on this page is for a nine bank machine. A seven bank and six bank are also made.

Handling Fractions on the Sundstrand

The SUNDSTRAND Fraction Machine can be furnished to write either ¼ or ⅛ fractions. It handles fractions or whole numbers with the same easy speed and precision. It is the simplest and most efficient fraction machine made. To write a figure and a fraction on the SUNDSTRAND machine with ⅛ fractions, simply strike in the whole number in the *natural way* as 1234 and if the fraction is ⅝ then strike the five and the fraction bar, pulling the handle. This gives us 1234⅝.

The SUNDSTRAND Fractional Machine converts fractions into whole numbers just as easily and simply as it adds whole numbers to whole numbers.

If we have 1234⅝ in the machine and wish to add 362⅝, our answer will be 1597¼.

The SUNDSTRAND Fractional Machine is invaluable to textile, hardware, lumber, leather, grocery and other concerns where fractions form a large part of the work.

Motor driven fraction machine

The electric driven SUNDSTRAND is, of course more advisable if there is a quantity of work, owing to the greater speed and less effort required.

In the Motor Driven Fraction Machine is eliminated the handle pull. To write whole numbers simply strike the keys in the *natural way* touching the motor bar which is on the right hand side of the keys. To write fractions simply write the whole number, then the initial figure of the fraction, touching the fraction bar on the left of the keyboard. The fraction bar is connected with the motor making it unnecessary to also strike the motor bar as striking the fraction bar operates the motor and adds the figure to the sum in the machine.

Fractions are handled with whole numbers on the Sundstrand.

Correction Features

There are three easy methods of correcting on the SUNDSTRAND Figuring Machine. Read carefully about these features and make your figure work easier and faster.

The first method is a short forward pull of the handle—this destroys all items you have set in the machine, and you start over from the beginning. This is an exclusive SUNDSTRAND feature and is a simple, easy and natural movement. We say a natural movement because the hand naturally goes from the keyboard to the handle. Try this handle correction and you will agree with other users that this is truly a big and helpful point.
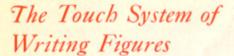
The error key is to correct one item at a time.

For instance—if you set in machine 1—5—6—9, and you wanted or should have set in 1—5—6—8—you can depress error key and take out the incorrect 9 and put in the *correct* 8. With the Error Key you may take out one numeral at a time the complete set up in the machine.

The third correction feature is exclusive with the SUNDSTRAND—if after you have pulled handle clear down, and discover an error, you may depress both the non-print and the non-add keys—both at the same time—release handle, and you have neither printed nor added.

Try these better, easier methods of correction, and you will appreciate more than ever that your SUNDSTRAND is far ahead of other adding and listing machines.

The Touch System of Writing Figures

SUNDSTRAND touch operation has done for the adding machine operators what typewriter touch operation has done for typists.

On the SUNDSTRAND the touch system of writing figures takes the place of the sight system. The touch system on the SUNDSTRAND is simple, easy and natural.

Look at the SUNDSTRAND keyboard, and you will appreciate the natural arrangement of figure keys.

Figures 1, 2 and 3 right at the bottom where your fingers go naturally—4, 5 and 6 right above, and as an extra guide and help to touch writing this center row of keys is cupped. The top row contains the 7, 8 and 9 keys.

Arranged in one-two-three order; the keyboard just naurally guides your fingers to the correct figures. The SUNDSTRAND keyboard is the scientific keyboard, the helpful keyboard.

Advantage of touch over sight writing

Writing figures by touch is so much easier and faster that it is unnecessary to look at the work and then back at the keyboard to locate the proper keys. With the touch system, keep the eyes on the work and fingers operate the keys in the *natural way*.

Remember—one hand on the work—one hand to operate machine, and eyes on the work only, not on the keyboard—that's the system that will make your work easy—that will give the biggest day's work with the least strain.
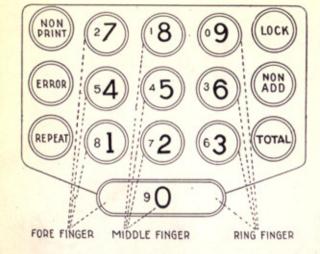

Chart showing correct fingering for the touch system of writing

FORE FINGER   MIDDLE FINGER   RING FINGER

Clear machine

Before starting to list items always be sure that the machine is clear. To do this, pull lever and tap the total key when red signal will appear. You are then ready to list the items.

Operate the keyboard with the right hand and use the left hand to follow the items to be added. List items in order of number from left to right, giving no thought to numerical size, as the machine will enter them correctly and automatically.

Use the first three fingers of the right hand. Note that the fore-finger depress keys 1, 4 and 7, the middle finger 2, 5 and 8, and the ring finger 3, 6 and 9.

Add the first row of keys, 1, 4 and 7, then the second, 2, 5 and 8, then the third, 3, 6 and 9, add them backwards, 7, 4, 1 and so on. Add them horizontally, that is 1, 2, 3, 4, 5, 6, 7, 8, 9, reverse, do this a number of times. Familiarize yourself with the position of the keys,—note the center row, 4, 5, 6, have concave faces.

The cipher bar may be depressed with any finger, or can be used the same as the space bar on typewriters. Work slowly at first, or until the location of all the keys as well as the particular finger by which each key should be depressed, has been thoroughly mastered.

Add each of the lists on page fourteen 25 times without looking at the keyboard.

See if your fingers readily and automatically find the keys. If not, practice further. Practice makes for perfect operation and the touch system is not only easily learned, but the most effective.

Practice the touch system of figure writing

Add each of the columns twenty-five times with out looking at the keyboard. Be fair with yourself and you will know at the end of twenty-five times over the three columns of figures, that you can easily and automatically find the keys. If not, practice further. Keep on with your practice work until you can instantly and without effort —place the proper finger on the key desired.

Practice items for touch operation

4.78	5.47	12.24
4.50	7.54	12.65
5.87	8.56	12.35
9.85	6.80	12.89
5.69	5.74	35.27
9.54	7.58	65.09
8.65	8.95	84.50
8.74	2.36	156.70
5.89	.88	20.02
4.57	9.52	.11
9.50	7.53	29.18
4.75	9.51	30.52
7.85	2.46	160.87
6.59	2.68	90.31
5.86	8.46	58.80
7.45	6.42	64.28
5.90	28.64	135.79
8.54	95.26	975.31
5.41	7.83	28.31
1.70	28.82	132.60
9.37	9.59	16.40
7.51	3.73	.14
3.59	36.68	15.07
7.15	25.97	1.50
1.70	85.13	19.08
9.37	2.62	42.29
2.35	50.73	196.57
172.67	**475.46**	**2408.84**

Get full value out of your machine

Your SUNDSTRAND Figuring Machine will give you figure facts that you never thought of getting in the old hand way. With the SUNDSTRAND, you are using machine power on your figure work—and you know which is the fastest, the easiest, the most reliable.

Use your SUNDSTRAND in figuring payroll, extending job costs, re-capitulation of costs, checking invoices, and in all accounting work.

The SUNDSTRAND is a portable machine, small enough and light enough to carry to the figure work wherever the work may be.

In the general office, the cashier's cage, the private office, the stock room, shipping room—any place is the right and convenient place to put the SUNDSTRAND to work on a figure job.

Use your machine for more than plain adding and listing—use it to multiply, subtract and divide. After learning the correct method, you will find the SUNDSTRAND a real help—an ever-ready help on all your figure work.

Carried to the work— the portable SUNDSTRAND

Illustrating correct method of putting new ribbon on machine with new style ribbon spool top.

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Putting on a new ribbon—is important

It's easy to put on a new ribbon if you follow directions and illustrations on these two pages.

But unless you get ribbon on correctly you will have trouble with the automatic ribbon reverse. When ribbon is entirely off from one spool it will automatically rewind. So—be careful in changing ribbons and get in right position as shown by photographic illustrations on these two pages. It's a very simple operation.
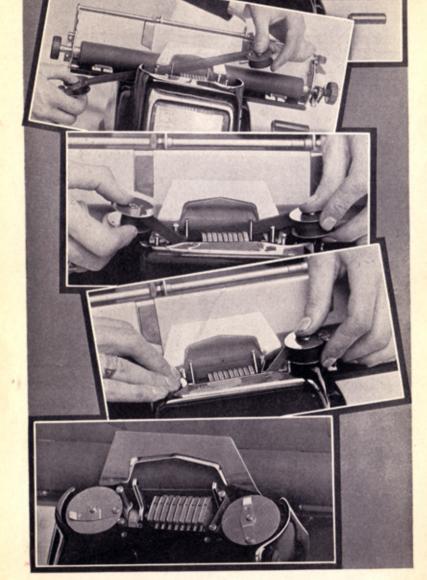
The illustration on page at the left shows new style case with removable ribbon spool top. Not necessary to remove case with this type.

Small illustration on this page shows case removed for replacing ribbon. If you follow the movements shown on illustration to left, you will make the change very easily.

Explaining illustration at right

After attaching the new ribbon to empty spool with clip, thread through D and E, around posts F and G. Do the same on other side.

Fasten spring clip I and you have ribbon on correctly.

Machine with case removed for changing ribbon.

Chart Showing How to Change Ribbons on Old Style Machines.

To remove carriage and case from old model machines

First, pull operating handle forward about four inches or until the pawl drops into the first notch on downward stroke, allowing it to rest in this position. See figure 1. Second, remove the two screws on either side of carriage directly under paper release and tabulating levers, see figure 2. Third, with both hands on ends of carriage lift it from the machine. See figure 3. NEVER OPERATE MACHINE WITH CARRIAGE REMOVED.

To remove case, first, remove cipher bar. Second, remove screws holding case to base. On some machines you will find these screws on each side of case, just above the base. On later machines you will find screws inserted through bottom of base, near drip pan. These can be seen by tipping up machine on end. Third, lift case straight up, separating it from "U" shaped metal insert under handle.
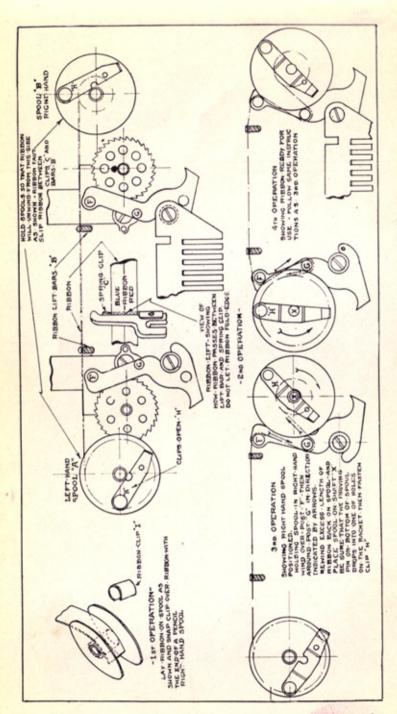
To replace case

The handle should remain in the same position as when removing carriage until case and carriage have been replaced. DO NOT PULL HANDLE with carriage off the machine, as blow of hammers against type may cause the type to catch on ribbon, and when handle is pulled again will tear the ribbon.

When replacing case on machine be sure to replace small "U" shaped piece which fits on the case below the handle. If there are small studs in the corners of base, be sure that holes in corners of case fit over these studs. See that case sets squarely on base and replace screws. See that indicator arrow is not caught under glass.

To replace carriage
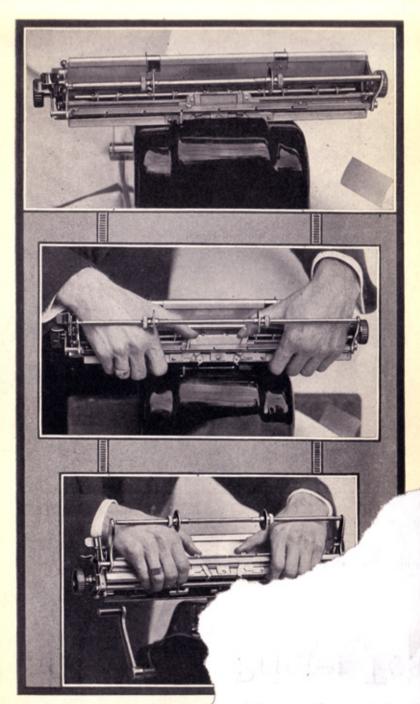
First, see that handle is in same position as for removing carriage. Second, with both hands on ends of carriage tilt it forward and place the round bar, on lower front of carriage, into "U" shaped parts under ribbon spools and set it squarely on machine with carriage spacer under carriage in feed blank on left side of machine. Then complete the full stroke of the operating lever, replace the two screws on sides of carriage, and adjust the tabulating device on proper notch. The machine is now ready for work. On all machines above 10,000 it is unnecessary to remove case or carriage to put on ribbon.

Cut view of SUNDSTRAND *packing case showing correct method of unpacking.*
Do not lift out by carriage as in Fig. 2. Save the case.

Photographic illustration sho...
new

Taking care of your machine

Your SUNDSTRAND only requires ordinary care—the same care you are in the habit of giving a high grade typewriter.

The big point is to keep machine clean—do not let any more dust settle in it than you can help.

When machine is not in use see that it is covered with rubberized cover furnished with every machine. It is much cheaper to cover machine when not in use than it is to pay repair bills.

New machines are thoroughly oiled and greased at the factory, and with average use will not need oiling for six months to a year. This, of course, depends on how much machine is used. In some offices machines have an average of an hour a day and in others they are operating continuously.

It is most satisfactory to call a SUNDSTRAND Service Man—let him clean and oil properly and thoroughly, and at the same time give machine a thorough inspection. This service is free to you during the first year and after that the charge is most reasonable. SUNDSTRAND Service is not for profit, but for the *service of* SUNDSTRAND users.

Correct way to carry machine

When carrying machine from one job to another, it should be grasped at each end. With a hand on each end of machine you have a firm, sure hold and there is no chance of dropping.

Never carry the machine by the carriage.
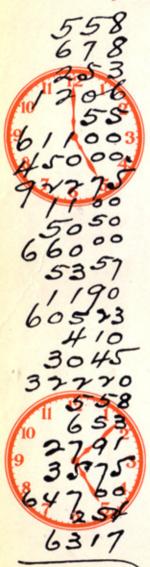
Illustration to remind you to cover machine when not in use. Keeping dust out will insure longer service.

Add, multiply, subtract, divide—by machine

558
678
253
1706
55
61100
45000
9x775
1180
5050
6600
5357
1190
60523
410
3045
32770
558
653
2791
3575
64760
254
6317

4548.68

Machine Power is so much better, so much faster and more accurate than brain and hand power, and when you can put a machine — the SUNDSTRAND Figuring Machine—to work on your figure job it certainly pays—and pays big.

Carry the SUNDSTRAND to the work—it's so small and so light that it can be carried any place. It takes up so little room that it can be used on a desk or table—on the counter or on a box or packing case.

Use the SUNDSTRAND for more than mere adding and listing—use it to multiply, subtract and divide. You'll find it speedy, accurate and a real true money maker.

The following pages show how to use machine to best advantage in all kinds of figure work. Learn to use your machine. Get the most out of it.

Addition on the SUNDSTRAND

Addition on the SUNDSTRAND is simply and quickly performed. Before any work is to be done, always clear the machine by pulling the handle and tapping the total key with the thumb. (See page 5.) This prints a red signal to show that the machine is clear. To set up numbers on the keyboard is so easy that even the office boy can do it. Simply depress the keys corresponding to the number to be set up. The machine automatically places each figure in the correct units column. To find the sum or total pull the handle once and then again; tapping the total key with the thumb.

If sub-total is desired instead of a grand total just pull the handle forward and the machine automatically prints the sub-total in red without the signal.

Blank line before total

In adding 124 and 421, you would get a sub-total on first pull of the handle—and without a blank space. This is because the adding wheels are not carrying, as the sum of all columns is less than ten. If the tops of the type bars are even all the way across you will get a total without a blank space.

But you can get a blank space by tapping the cipher key before pulling handle.

5.58
6.78
2.53
12.06
.55
611.00
450.00
922.75
11.00
50.50
660.00
53.57
11.90
605.23
4.10
30.45
322.20
5.58
6.53
27.91
35.75
647.00
2.54
63.17
4,548.68□

Multiplication
on the SUNDSTRAND

Multiplication
1 4 7.56
3.23
───────
2 2 4 2 6 8
1 4 9 5 1 2
2 2 4 2 6 8
───────
2 4 1 4 6 1.88

The SUNDSTRAND method of multiplication is a series of additions. To multiply 747.56 by 323: First clear the machine by pulling the handle and tapping the total key. Next depress the keys corresponding to our number 7-4-7-5-6. Depress repeat key. Pull the handle 3 times. We have now multiplied our number by 3 in the units column.

The next step is to multiply by 2 in the tens column. To do this we depress the cipher bar once. This automatically moves our number into the tens columns. Now pull the handle two times.

Depress the cipher bar once to move our number one digit to the left. Pull the handle three times, releasing repeat key before return of last stroke. Pull the handle once and then again; the last time tapping the total key. The total, 241461.88 is the product.

        7 4 7.56
        7 4 7.56
        7 4 7.56
       7 4 7 5.60
       7 4 7 5.60
      7 4 7 5 6.00
      7 4 7 5 6.00
      7 4 7 5 6.0 0

2 4 1 4 6 1.8 8 ¤

Multiplication
from left to right

Multiplying from left to right on the SUNDSTRAND is just as simple and practical as multiplying from right to left—but the left to right method gives much greater capacity to machine when multiplying decimals. You can handle decimal figures with the left to right method that would be way over the capacity of the machine if multiplying right to left.*

For instance, if you had a problem like this: Cost of 18,242.32 lineal feet of cement walk at .4253 per foot, you would use the left to right multiplication because with the ordinary right to left method the product of this problem would be beyond the capacity of a nine column machine.

                1 8 2 4 2.3 2 ¤
                   4 2.5 3 ¤

Illustration shows just how this problem is worked out. We have put in 1-8-2-4-2-3-2, the multiplicand—and 4-2-5-3, the multiplier, but have not added them as indicated by the non-add signal. (Do this by pressing non-add key—here these figures are put in merely as a guide).

Now press keys 1-8-2-4-2-3-2 and add two ciphers (on a nine column machine). The rule in left to right multiplication is to add to the multiplicand one less cipher than there are figures in in the multiplier. These ciphers are added to the multiplicand to carry decimal points farther. In the example given here there are seven figures in the multiplicand and four in the multiplier —so we have three ciphers to add to multiplicand—but as the machine we are using has but nine columns of figures, we can only add two ciphers. This will

    1 8 2 4 2 3 2:0 0
    1 8 2 4 2 3 2.0 0
    1 8 2 4 2 3 2.0 0
    1 8 2 4 2 3 2.0 0
     1 8 2 4 2 3.2 0
     1 8 2 4 2 3 2 0
      1 8 2 4 2.3 2
      1 8 2 4 2 3 2
      1 8 2 4 2 3 2
      1 8 2 4 2.3 2
      1 8 2 4 2.3 2
       1 8 2 4.2 3
       1 8 2 4.2 3
       1 8 2 4.2 3

7 7 5 8 4 5 8.6 9 ¤

not make any material difference in our answer when we are working with decimals.

Press repeat key—pull handle four times, to multiply by 4—press error key to move over one place—pull handle two times, multiplying by 2—press error key, pull handle five times—press error key and pull handle three times—*releasing* repeat key *before* return of last stroke. now take total in usual way.

*Left to right multiplication can only be done on a machine having an error key.

Rule for locating decimal point

Point off, from the right, as many places as there are decimals in both multiplicand and multiplier—less the number of figures destroyed.

Explanation:—in this particular problem there are two decimal places in multiplicand and four in multiplier (remember that decimal point on machine is stationary—the multiplicand is .4253), a total of six. Less the (1) figure destroyed in operation, gives us five places to point off in our product—and the correct answer to this problem is 7758.45869—or $7758.46.

```
     .53
     .53
    5.30
    5.30
    5.30
     .69
     .69
     .69
     .69
    6.90
    6.90
    6.90
    1.08
    1.08
    1.08
    1.08
   10.80
   _____
   54.85 ¤
```

Accumulated multiplication on the SUNDSTRAND

Accumulated multiplication is used in hundreds of commercial houses for checking in-coming and out-going invoices. As it is only human for billing clerks to make an occasional error, every invoice should be carefully checked before it is paid. Use your SUNDSTRAND for checking invoices. It will do the work quickly and correctly.

To extend the product of several multiplicands, multiply in the ordinary manner, allowing the amounts to accumulate in the machine until all operations have been made. Then take a grand total, which will be the gross amount of the invoice.

Example:

53	yds.	@	$0.32	per yard.
69	yds.	@	.33	per yard.
108	yds.	@	.14	per yard.

Proceed as in multiplication, except that in using this method of multiplication the operator should take care to see that the decimals accumulate in proper numerical order: units under units, tens under tens, etc.

If, as the result of some multiplication, two decimal places appear in the multiplication, the operator must allow two decimal places in all items on the invoices.

Multiplication of fractions on the SUNDSTRAND

Multiply as in ordinary multiplication. First, reduce the fraction to a decimal, then point off as many decimals in the *product* as there are decimal places in the *multiplicand* and *multiplier* together. A table of Decimal Equivalents of Fractions is given on page 35.

Example: Multiply 148¼ by 34½. The decimal equivalent to ¼ is .25, therefore, set up the multiplicand thus, 148.25 in keyboard. The decimal equivalent to ½ is .5. As the multiplier in this instance is 34½, or 34.5, we multiply first by 5, then depress Cipher Bar once and multiply by four, depress Cipher Bar again and multiply by three. Take a grand total, point off three decimal places, counting from right to left, and the product will be 5,114.625.

```
                           ¤
              148.25
              148.25
              148.25
              148.25
              148.25
             1482.50
             1482.50
             1482.50
             1482.50
            14825.00
            14825.00
            14825.00
            _____
            51146.25 ¤
```

Split multiplication or multiplying beyond the number of columns on the machine

To multiply 1742075 by 4322. List all the figures of the multiplicand in the machine in the usual way for ordinary multiplication. Now multiply by the two right hand figures of the multiplier (that is 22). Take a grand total, the two right hand figures of which will be the two right hand figures of the answer, that is 50 on the margin. The figures to the left of 50 must be carried to the next step in the operation. So list these (383256) as for ordinary addition. Now set up the multiplicand again for multiplication and multiply it by 43 of the multiplier. Take a grand total, which will be the left hand figures in the answer. Above you found the two right hand figures of the answer, which have to be placed after the left hand figures, making the correct answer 7529248150.

Any figures can be split in this way to give correct figures to many places beyond the capacity of the machine. It is to be noted however, that when the multiplier is split in three digits, use the three right hand figures of the answer in the first multiplication.

```
                           ¤
            17420.75
            17420.75
           174207.50
           174207.50
           _____
          383256.50 ¤

            3832.56
           17420.75
           17420.75
           17420.75
          174207.50
          174207.50
          174207.50
          174207.50
          _____
         7529248.1 ¤
```

Subtraction on the Sundstrand

In subtracting: list the first item or minuend, as usual. If the subtrahend or second item is wanted to appear on tape, list it, and while pulling the handle hold down non-add key. From here on use the small figures only.

In this illustration a nine figure machine is used, and as we have five figures (147.86) in the subtrahend, depress the key with small cipher four times. Always fill machine with small ciphers when subtracting. Take away one unit from the last figure in the subtrahend (147.86), then depress keys with *small* 1, 4, 7, 8, 5.

The arrow in the Digit Indicator now points to figure 9, showing that all digits are used. Pull lever once for spacing stroke and then again, tapping total key, and the remainder or difference is printed in red.

In the example given here we have printed in the complementary item to enable the operator to clearly understand our process of subtraction. This item may be eliminated by holding down the Non-Print Key, included on all SUNDSTRAND machines except models A, B.S., and CS.

```
  2 8 7 5.63
    1 4 7.86 ¤
9 9 9 9 8 5 2.14

  2 7 2 7.77 ¤
```

Illustrating six bank, 5" carriage "stripped" keyboard.

Division on the SUNDSTRAND

By using the SUNDSTRAND method, division is performed very easily and quickly. Our method for dividing is nothing more or less than the multiplication of large figures. The operator simply *multiplies* the *dividend* by the *decimal reciprocal* of the *divisor;* multiplying from *left* to *right*. A table of decimal reciprocals from 1 to 1512 will be found on pages 49 to 53. This table includes all numbers required for commercial purposes.

To illustrate the simplicity of our method, we give the following example: If it costs $9,687.58 to build 321 rods of macadam, what is the average cost per rod?

First, set up the figures representing the total cost or dividend, which is 9687.58; *hold down the Non-Add Key,* and print the item.

Second, as the total cost is divided by the number of rods or 321, refer to page 50 of Table of Reciprocals and you will find that the decimal reciprocal of 321 is .0031153. Now, *cancel the two ciphers to the left of reciprocal* and set up the figures in keyboard; the figures of both *multiplicand* and *multiplier,* which is so printed for convenience or reference.

Third, set up figures 9687.58, or multiplicand, and two ciphers and multiply by 3, the first left-hand figure in the multiplier; then *depress the Error Key once,* which will destroy the last figure of multiplicand, continuing in this manner, multiplying by each figure of the multiplier from *left to right* releasing Repeat Key before the return of the last stroke of lever.

Fourth, take a total as in addition, and the product will read 30179.7174. The correct answer will read $30.17 or average per rod.

```
321) 9687.58 (3017
     963
     575
     321
     2548
     2247
      301
```

```
9 6 8 7.58 ¤
    3.2 1 ¤
```

```
9 6 8 7 5 8.00
9 6 8 7 5 8.00
9 6 8 7 5 8.00
9 6 8 7 5.80
  9 6 8 7.58
    9 6 8.75
    9 6 8.75
    9 6 8.75
    9 6 8.75
    9 6 8.75
    9 6 8.75
      9 6.87
      9 6.87
      9 6.87

3 0 1 7 9 7 1.74 ¤
```

Locating decimal point
in division on the SUNDSTRAND

When multiplying from left to right, follow rule given below for locating decimal point. This rule applies to all problems in division when a reciprocal is used, or when reciprocals or decimal equivalents of fractions are used in multiplication from left to right.

Point off as many places *from the right as there are decimals in both multiplicand and multiplier, less the number of figures destroyed* in the operation.

For example, in illustration the dividend or multiplicand is $78,652.01. The reciprocal of the divisor or multiplier (426) is .0023474. In our illustration given on the margin of this page, it will be noticed that we have *destroyed* the four figures 5201 during the operation of multiplying from left to right, beginning at the extreme right of the multiplicand or dividend. Now, since there are *nine decimals in two numbers* (two in the multiplicand and seven in the multiplier—and *four figures destroyed in the operation,* we *count back five places to the left,* because the difference between the number of decimals and destroyed figures is *five,* therefore, the decimal point will come between the 4 and 6, and the answer will read 184.62.

This rule must be modified slightly when there are decimals in the divisor. In this case, begin at the decimal point in reciprocal and *count as many places to the right as there are numbers to the right of the decimal point in divisor,* and then place the decimal point.

For example, if instead of 426 as the divisor we had 4.26 the reciprocal would still appear to be .0023474, but according to the rule we would count from the decimal point *two places to the right* or to the figure 2, making the reciprocal now .23474. Now, we have *no ciphers* to the right of the decimal point in the reciprocal of the divisor, and we still have five whole numbers in the dividend, and our answer, in this instance, is $18,462.76, instead of $184.62.

```
7 8 6 5 2.0 1 ¤
    2 3 4.7 4 ¤

                        ¤
7 8 6 5 2.0 1
7 8 6 5 2.0 1
  7 8 6 5 2 0
  7 8 6 5 2 0
  7 8 6 5 2 0
    7 8 6.5 2
    7 8 6.5 2
    7 8 6.5 2
    7 8 6.5 2
      7 8.6 5
      7 8.6 5
      7 8.6 5
      7 8.6 5
      7 8.6 5
      7 8.6 5
      7 8.6 5
        7.8 6
        7.8 6
        7.8 6
        7.8 6
```

1 8 4 6 2 7.6 9 ¤

Tabulation
on the SUNDSTRAND

The example given below shows how the SUNDSTRAND may be used for all tabulating work of more than one column if a grand total of all amounts is desired, and if a sub-total of each separate column is required.

Release the roll paper and slide the paper guides toward the ends of the carriage so as to make room between them for the width of sheet to be used. Insert the sheet by dropping it into the paper carriage and turning the rubber platen roller until the sheet is in position for the first line. Move the carriage into position to print in the first column, print a red clear signal to show that the machine is clear; then proceed to list all items in the regular way. When all the items of the first column have been listed, take a sub-total, which amount will be retained in the machine. Turn the platen back to the position at which the red clear signal was printed in the first column and move carriage to the left in position for the second column. Now, pull the operating lever again and the machine will print the sub-total, retaining the amount in the machine. The items belonging to the second column should now be listed, another sub-total taken and carried forward to the third column. When all columns are finished, take a grand total in the regular way.

This is performed on the machine as illustrated below:

¤ 2 5 5.3 2	4 6 8.0 7	6 7 0.4 8
4 3.9 6 3 5.5 5	2 5.0 0	1 2.7 7
3 4.5 0 5 6.5 0	4 3.2 5	3 2.5 5
7 5.7 6 3 2.5 5	5 1.6 1	1 1.5 5
2 5.6 5 4 2.5 0	5 0.0 0	2 2.6 5
7 5.4 5 4 5.6 5	3 2.5 5	3 3.7 6
2 5 5.3 2 4 6 8.0 7	**6 7 0.4 8**	**7 8 3.7 6 ¤**

Commercial interest

In any business where the work of figuring interest is a burden, the SUNDSTRAND will pay for itself in a very short time. To facilitate the operation, we have prepared an Interest Table showing decimal equivalents representing interest on $1.00 for one day on the basis of either 360 or 365 days as a year, given on page 35. Our method is to multiply the principal by the number of days, and then multiply that product by the decimal equivalent representing interest on $1.00 for one day, figuring on the basis of number of days in the year. The correct answer is thus obtained.

The table given on the following page includes decimal equivalents representing interest on $1.00 for one day on the basis of either 360 or 365 days as a year.

Example:—Find the interest on $157.63 at 4 per cent for four months and three days. Multiply $157.63 by 123 or number of days, because 360 days are reckoned as one year in this instance. The product will read 1938849. Point off two places to the left, because there are two decimals in the principal and none in the number of days. Drop the two decimals (49) because they will have no practical effect in the answer. Now, multiply the remaining five whole numbers (19388) by the decimal equivalent of 4 per cent or .0001111. The product will read 21540068. As there are seven decimal places in the rate, or multiplier, and none in the multiplicand, point off seven places to the left in the product. The answer will read $2.15.

```
        157.63
        157.63
        157.63
       1576.30
       1576.30
      15763.00

      1938849

        193.88
       1938.80
      19388.00
     193880.00

     21540068
```


Illustrating seven bank, full keyboard, 5" carriage.

Tables Helpful for machine figuring

The tables that follow will be found helpful in every day office figuring.

There are special tables for figuring interest, discounts, grain and lumber. And then the tables of reciprocals.

Any of these tables will be furnished SUNDSTRAND owners, printed on cardboard for more convenient use. ask for what you need.

Interest table figured 360 and 365 days to year, showing interest on $1.00 for one day at 1 per cent to 10 per cent.

RATE		Decimal 360 Days	Decimal 365 Days
1	per cent	.0000278	.0000274
1½	" "	.0000417	.0000411
2	" "	.0000556	.0000548
2½	" "	.0000694	.0000685
3	" "	.0000833	.0000822
3½	" "	.0000972	.0000959
4	" "	.0001111	.0001096
4½	" "	.000125	.0001233
5	" "	.0001389	.000137
5½	" "	.0001528	.0001507
6	" "	.0001667	.0001644
6½	" "	.0001806	.0001781
7	" "	.0001944	.0001918
7½	" "	.0002083	.0002055
8	" "	.0002222	.0002192
8½	" "	.0002361	.0002329
9	" "	.00025	.0002466
9½	" "	.0002639	.0002603
10	" "	.0002778	.000274

Decimal Equivalents of Fractions

3rds	4ths	6ths	Decimal Equiva-lents	8ths	12ths	16ths
....	..	....	.0625	....	....	1-16
....	.	....	.0833	....	1-12	....
....	..	....	.125	1-8	....	2-16
....	.	1-6	.1667	....	2-12	....
....	.	....	.1875	....	....	3-16
....	1-4	....	.25	2-8	3-12	4-16
....	.	....	.3125	....	....	5-16
1-3	.	2-6	.3333	....	4-12	....
....	.	....	.375	3-8	....	6-16
....	.	....	.4167	.	5-12	....
....	.	....	.4375	....	....	7-16
....	2-4	3-6	.5	4-8	6-12	8-16
....	.	....	.5625	....	....	9-16
....	.	....	.5833	....	7-12	....
....	.	....	.625	5-8	....	10-16
2-3	.	4-6	.6667	....	8-12	....
....	.	....	.6875	....	....	11-16
....	3-4	....	.75	6-8	9-12	12-16
....	.	....	.8125	....	....	13-16
....	.	5-6	.8333	....	10-12	....
....	.	....	.875	7-8	....	14-16
....	.	....	.9167	....	11-12	....
....	.	....	.9375	....	....	15-16

Chain discounts
on the SUNDSTRAND

A chain discount is a series of discounts, the first denotes a discount off the list price, the second a discount from the remainder, and so on. By referring to the following page, the operator will find a table giving decimal equivalents of both *simple* and *chain discounts*. The decimal numbers in the top line to the left of the word "Net" are the decimal equivalents to simple discount from 5 to 90 per cent. The balance of the table represents chain discounts. To obtain the net amount of a bill discounted at a certain chain discount, *multiply the gross amount by the decimal equivalent to the rate.*

```
     6075.00
     6075.00
     6075.00
    60750.00
    60750.00
    60750.00
    60750.00
    60750.00
    60750.00
    60750.00
   443475.00 ¤
```

Example: $73.00 less 25, 10 and 10. Refer to the table of chain discounts and find 25 at the top. Read downward in the same column until opposite the 10 and 10. The amount so given is .6075, or the decimal equivalent of 25, 10 and 10. List the equivalent in the machine and multiply by $73.00 or list price of bill. The answer will be $44.34.75, or net amount.

This is performed on the machine as illustrated on the margin of this page.

Decimal Equivalent of Chain Discounts

Rate %	5	7½	10	12½	15	16⅔	20	22½	25
Net	.95	.925	.90	.875	.85	.83333	.80	.775	.75
−2½	.92625	.90188	.8775	.85313	.82875	.8125	.78	.75562	.73125
−5	.9025	.87875	.855	.83125	.8075	.79166	.76	.73625	.7125
−5−2½	.87994	.85678	.83363	.81047	.78731	.77187	.741	.71784	.69469
−5−5	.85738	.83481	.81225	.78969	.76713	.75208	.722	.69943	.67688
−5−5−2½	.83594	.81394	.79194	.76994	.74795	.73328	.70395	.68195	.65995
−7½			.85563	.8325	.80938	.78625	.77083	.74	.71688	.69375
−7½−2½			.83423	.81169	.78914	.76659	.75156	.7215	.69895	.67641
−7½−5			.81284	.79088	.76891	.74694	.73229	.703	.68103	.65906
−10				.81	.7875	.765	.75	.72	.6975	.675
−10−2½				.78975	.76781	.74588	.73125	.702	.68006	.65813
−10−5				.7695	.74811	.72675	.7125	.684	.66263	.64125
−10−5−2½				.75026	.72941	.70858	.69469	.6669	.64606	.62522
−10−7½				.74925	.72844	.70763	.69375	.666	.64519	.62438
−10−10				.729	.70875	.6885	.675	.648	.62775	.6075
−10−10−5				.69255	.67331	.65408	.64124	.6156	.59636	.57713
−10−10−5−2½				.67524	.65648	.63772	.62519	.60021	.58145	.5627
−10−10−10				.6561	.6379	.6196	.6075	.5832	.5650	.5467

Rate %	27½	30	32½	33⅓	35	37½	40	42½	45
Net	.725	.70	.675	.66667	.65	.625	.60	.575	.55
−2½	.70688	.6825	.65813	.65	.63375	.60938	.585	.56063	.53625
−5	.68875	.665	.64125	.63333	.6175	.59375	.57	.54625	.5225
−5−2½	.67153	.64838	.62522	.6175	.60206	.57891	.55575	.53259	.50944
−5−5	.65431	.63175	.60919	.60167	.58663	.56406	.5415	.51894	.49638
−5−5−2½	.63795	.61596	.59396	.58663	.57196	.54996	.52796	.50596	.48397
−7½	.67063	.6475	.62138	.61667	.60125	.57813	.555	.53188	.50875
−7½−2½	.65386	.63131	.60877	.60125	.58622	.56367	.54113	.51858	.49603
−7½−5	.6371	.61513	.59316	.58583	.57119	.54922	.52725	.50529	.48331
−10	.6525	.63	.6075	.6	.585	.5625	.54	.5175	.495
−10−2½	.63619	.61425	.59231	.585	.57038	.54844	.5265	.50456	.48263
−10−5	.61988	.5985	.57713	.57	.55575	.53438	.513	.49163	.47025
−10−5−2½	.60438	.58354	.5627	.55575	.54185	.52102	.50018	.47933	.45849
−10−7½	.60356	.58275	.56194	.555	.54113	.52031	.4995	.47869	.45788
−10−10	.58725	.567	.54675	.54	.5265	.50625	.486	.46575	.4455
−10−10−5	.55789	.53865	.51941	.513	.50018	.48094	.4617	.44246	.42323
−10−10−5−2½	.54394	.52518	.50643	.50018	.48767	.46891	.45016	.4314	.41264
−10−10−10	.5285	.5103	.4921	.4860	.4738	.4556	.4374	.4192	.4009

Rate %	47½	50	52½	55	57½	60	62½	65	66⅔
Net	.525	.50	.475	.45	.425	.40	.375	.35	.33333
−2½	.51188	.4875	.46313	.43875	.41438	.39	.36563	.34125	.325
−5	.49875	.475	.45125	.4275	.40375	.38	.35625	.3325	.31667
−5−2½	.48628	.46313	.43997	.41681	.39366	.3705	.34734	.32419	.30875
−5−5	.47381	.45125	.42869	.40613	.38356	.361	.33844	.31588	.30083
−5−5−2½	.46194	.43997	.41797	.39597	.37397	.35198	.32998	.30798	.29331
−7½	.48563	.4625	.43938	.41625	.39313	.37	.34688	.32375	.30833
−7½−2½	.47348	.45094	.42839	.40584	.3833	.36075	.3382	.31566	.30063
−7½−5	.46135	.43938	.41741	.39544	.37347	.3515	.32954	.30756	.29292
−10	.4725	.45	.4275	.405	.3825	.36	.3375	.315	.3
−10−2½	.46069	.43875	.41681	.39488	.37294	.351	.32906	.30713	.2925
−10−5	.44888	.4275	.40613	.38475	.36338	.342	.32063	.29925	.285
−10−5−2½	.43765	.41681	.39597	.37513	.35429	.33345	.31261	.29177	.27788
−10−7½	.43706	.41625	.39544	.37463	.35381	.333	.31219	.29138	.2775
−10−10	.42525	.405	.38475	.3645	.34425	.324	.30375	.2835	.27
−10−10−5	.40399	.38475	.36551	.34628	.32704	.3078	.28856	.26933	.2565
−10−10−5−2½	.39389	.37513	.35637	.33762	.31886	.3001	.28135	.26259	.25009
−10−10−10	.3827	.3645	.3463	.3280	.3098	.2916	.2734	.2551	.2430

Rate %	70	72½	75	77½	80	85	87½	90
Net	.30	.275	.25	.225	.20	.15	.125	.10
−2½	.2925	.26813	.24375	.21938	.195	.14625	.12188	.0975
−5	.285	.26125	.2375	.21375	.19	.1425	.11875	.095
−5−2½	.27788	.25472	.23156	.20841	.18525	.13894	.11578	.09263
−5−5	.27075	.24819	.22563	.20306	.1805	.13538	.11281	.09025
−5−5−2½	.26398	.24198	.21998	.19799	.17599	.13199	.10999	.08799
−7½	.2775	.25438	.23125	.20813	.185	.13875	.11563	.0925
−7½−2½	.27056	.24802	.22547	.20292	.18038	.13528	.11273	.09019
−7½−5	.26363	.24166	.21969	.19772	.17575	.13181	.10984	.08788
−10	.27	.2475	.225	.2025	.18	.135	.1125	.09
−10−2½	.26325	.24131	.21938	.19744	.1755	.13163	.10969	.08775
−10−5	.2565	.23513	.21375	.19238	.171	.12825	.10688	.0855
−10−5−2½	.25009	.22925	.20841	.18757	.16673	.12504	.1042	.08336
−10−7½	.24975	.22894	.20813	.18731	.1665	.12488	.10406	.08325
−10−10	.243	.22275	.2025	.18225	.162	.1215	.10125	.081
−10−10−5	.23085	.21161	.19238	.17314	.1539	.11543	.09619	.07695
−10−10−5−2½	.22508	.20632	.18757	.16881	.15005	.11254	.09378	.07503
−10−10−10	.2187	.2005	.1822	.1648	.1458	.1093	.0911	.0729

RECIPROCALS COMMONLY USED

12 (dozen)	.08333	5280 feet to a mile	.0001894
144 (gross or inches to sq. ft.)	.006944	240 pence to a pound	.004167
1 ounce	.0022857	1728 cubic inches to a foot	.0005787
1 pound (16 ounces)	.0625	480 sheets to a ream	.002033
32 lbs. to a bushel	.03125	Month of 28 days	.03571
56 lbs. to a bushel	.01786	Month of 29 days	.03448
60 lbs. to a bushel	.01667	Month of 30 days	.03333
1 ton (long or gross, 2240 lbs.)	.0004464	Month of 31 days	.03226
1 ton (short or net, 2000 lbs.)	.0005	360 days to a year	.002778
2268 lbs. to a gross ton sand	.0004409	365 days to a year	.00274

Table of Reciprocals of Numbers from 1 to 1512 are included in our book of
instructions.

TABLE OF DECIMAL EQUIVALENTS OF MINUTES IN AN HOUR

Minutes	Decimal	Minutes	Decimal	Minutes	Decimal	Minutes	Decimal
1	.017	16	.267	31	.517	46	.767
2	.033	17	.283	32	.533	47	.783
3	.050	18	.300	33	.550	48	.800
4	.067	19	.317	34	.567	49	.817
5	.083	20	.333	35	.583	50	.833
6	.100	21	.350	36	.600	51	.850
7	.117	22	.367	37	.617	52	.867
8	.133	23	.383	38	.633	53	.883
9	.150	24	.400	39	.650	54	.900
10	.167	25	.417	40	.667	55	.917
11	.183	26	.433	41	.683	56	.933
12	.200	27	.450	42	.700	57	.950
13	.217	28	.467	43	.717	58	.967
14	.233	29	.483	44	.733	59	.983
15	.250	30	.500	45	.750	60	1.000

*Writing figures on the
SUNDSTRAND is as
natural as with
a pencil.*

Faster figuring for grain, coal and iron

❡ The SUNDSTRAND will figure your grain, coal and iron faster and with fewer operations than any other adding and listing machine.

❡ Use the following tables of decimal reciprocals, using left to right multiplication (as described on page 27), and get your figures easier and faster.

❡ Remember the left to right multiplication is an exclusive feature you get on the SUNDSTRAND Figuring Machine.

CORN—56 lbs. to bushel

Reciprocals for fractions to be added to reciprocals of whole number

⅛	.00002232142	⅝	.00011160714
¼	.00004464285	¾	.00013392857
⅜	.00006696428	⅞	.00015625000
½	.00008928571		

Price Per Bu.	Decimal Reciprocal	Price Per Bu.	Decimal Reciprocal	Price Per Bu.	Decimal Reciprocal	Price Per Bu.	Decimal Reciprocal
.75	.0133928	1.19	.02124994	1.63	.02910707	2.07	.03696419
.76	.0135713	1.20	.02142852	1.64	.02928564	2.08	.03714276
.77	.0137499	1.21	.02160709	1.65	.02946421	2.09	.03732133
.78	.01392853	1.22	.02178566	1.66	.02964278	2.10	.03749991
.79	.01410710	1.23	.02196423	1.67	.02982135	2.11	.03767848
.80	.01428568	1.24	.02214280	1.68	.03	2.12	.03785705
.81	.01446425	1.25	.02232137	1.69	.03017849	2.13	.03803562
.82	.01464282	1.26	.02249994	1.70	.03035707	2.14	.03821419
.83	.01482139	1.27	.02267851	1.71	.03053564	2.15	.03839276
.84	.01499996	1.28	.02285708	1.72	.03071421	2.16	.03857133
.85	.01517853	1.29	.02303565	1.73	.03089278	2.17	.03874990
.86	.01535710	1.30	.02321423	1.74	.03107135	2.18	.03892847
.87	.01553567	1.31	.02339280	1.75	.03124992	2.19	.03910704
.88	.01571424	1.32	.02357137	1.76	.03142849	2.20	.03928562
.89	.01589281	1.33	.02374994	1.77	.03160706	2.21	.03946419
.90	.01607139	1.34	.02392851	1.78	.03178563	2.22	.03964276
.91	.01624996	1.35	.02410708	1.79	.03196420	2.23	.03982133
.92	.01642853	1.36	.02428565	1.80	.03214278	2.24	.04
.93	.01660710	1.37	.02446422	1.81	.03232135	2.25	.04017847
.94	.01678567	1.38	.02464279	1.82	.03249992	2.26	.04035704
.95	.01696424	1.39	.02482136	1.83	.03267849	2.27	.04053561
.96	.01714281	1.40	.02499994	1.84	.03285706	2.28	.04071418
.97	.01732138	1.41	.02517851	1.85	.03303563	2.29	.04089275
.98	.01749995	1.42	.02535708	1.86	.03321420	2.30	.04107133
.99	.01767852	1.43	.02553565	1.87	.03339277	2.31	.04124990
1.00	.01785710	1.44	.02571422	1.88	.03357134	2.32	.04142847
1.01	.01803567	1.45	.02589279	1.89	.03374991	2.33	.04160704
1.02	.01821424	1.46	.02607136	1.90	.03392849	2.34	.04178561
1.03	.01839281	1.47	.02624993	1.91	.03410706	2.35	.04196418
1.04	.01857138	1.48	.02642850	1.92	.03428563	2.36	.04214275
1.05	.01874995	1.49	.02660707	1.93	.03446420	2.37	.04232132
1.06	.01892852	1.50	.02678565	1.94	.03464277	2.38	.04249989
1.07	.01910709	1.51	.02696422	1.95	.03482134	2.39	.04267846
1.08	.01928566	1.52	.02714279	1.96	.03499991	2.40	.04285704
1.09	.01946423	1.53	.02732136	1.97	.03517848	2.41	.04303561
1.10	.01964281	1.54	.02749993	1.98	.03535705	2.42	.04321418
1.11	.01982138	1.55	.02767850	1.99	.03553562	2.43	.04339275
1.12	.02	1.56	.02785707	2.00	.03571420	2.44	.04357132
1.13	.02017852	1.57	.02803564	2.01	.03589277	2.45	.04374989
1.14	.02035709	1.58	.02821421	2.02	.03607134	2.46	.04392846
1.15	.02053566	1.59	.02839278	2.03	.03624991	2.47	.04410703
1.16	.02071423	1.60	.02857136	2.04	.03642848	2.48	.04428560
1.17	.02089280	1.61	.02874993	2.05	.03660705	2.49	.04446417
1.18	.02107137	1.62	.02892850	2.06	.03678562	2.50	.0446425

CORN—68 lb. to bu.

Reciprocals for fractions to be added to reciprocal of whole number

⅛	.00001838235
¼	.00003676470
⅜	.00005514705
½	.00007352940
⅝	.00009191175
¾	.00011029410
⅞	.00012867645

Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal
.75	.01102941	1.63	.02397059
.76	.01117647	1.64	.02411765
.77	.01132353	1.65	.02426470
.78	.01147059	1.66	.02441176
.79	.01161765	1.67	.02455882
.80	.01176471	1.68	.02470588
.81	.01191176	1.69	.02485294
.82	.01205882	1.70	.025
.83	.01220588	1.71	.02514706
.84	.01235294	1.72	.02529412
.85	.01249999	1.73	.02544117
.86	.01264706	1.74	.02558823
.87	.01279412	1.75	.02573529
.88	.01294118	1.76	.02588235
.89	.01308823	1.77	.02602941
.90	.01323529	1.78	.02617647
.91	.01338235	1.79	.02632353
.92	.01352941	1.80	.02647059
.93	.01367647	1.81	.02661765
.94	.01382353	1.82	.02676470
.95	.01397059	1.83	.02691176
.96	.01411765	1.84	.02705882
.97	.01426471	1.85	.02720588
.98	.01441176	1.86	.02735294
.99	.01455882	1.87	.0275
1.00	.01470588	1.88	.02764706
1.01	.01485294	1.89	.02779412
1.02	.01499999	1.90	.02794117
1.03	.01514706	1.91	.02808823
1.04	.01529412	1.92	.02823529
1.05	.01544118	1.93	.02838235
1.06	.01558823	1.94	.02852941
1.07	.01573529	1.95	.02867647
1.08	.01588235	1.96	.02882353
1.09	.01602941	1.97	.02897059
1.10	.01617647	1.98	.02911765
1.11	.01632353	1.99	.02926470
1.12	.01647059	2.00	.02941176
1.13	.01661765	2.01	.02955882
1.14	.01676471	2.02	.02970588
1.15	.01691176	2.03	.02985294
1.16	.01705882	2.04	.03
1.17	.01720588	2.05	.03014706
1.18	.01735294	2.06	.03029412
1.19	.01749999	2.07	.03044117
1.20	.01764706	2.08	.03058823
1.21	.01779412	2.09	.03073529
1.22	.01794118	2.10	.03088235
1.23	.01808823	2.11	.03102941
1.24	.01823529	2.12	.03117647
1.25	.01838235	2.13	.03132353
1.26	.01852941	2.14	.03147059
1.27	.01867647	2.15	.03161765
1.28	.01882353	2.16	.03176470
1.29	.01897059	2.17	.03191176
1.30	.01911765	2.18	.03205882
1.31	.01926470	2.19	.03220588
1.32	.01941176	2.20	.03235294
1.33	.01955882	2.21	.0325
1.34	.01970588	2.22	.03264706
1.35	.01985294	2.23	.03279412
1.36	.02	2.24	.03294117
1.37	.02014706	2.25	.03308823
1.38	.02029412	2.26	.03323529
1.39	.02044117	2.27	.03338235
1.40	.02058823	2.28	.03352941
1.41	.02073529	2.29	.03367647
1.42	.02088235	2.30	.03382353
1.43	.02102941	2.31	.03397059
1.44	.02117647	2.32	.03411765
1.45	.02132353	2.33	.03426470
1.46	.02147059	2.34	.03441176
1.47	.02161765	2.35	.03455882
1.48	.02176470	2.36	.03470588

CORN 70 lb. to bu.

Reciprocals for fractions to be added to reciprocal of whole number

⅛	.00001785
¼	.00003571
⅜	.00005357
½	.00007143
⅝	.00008929
¾	.00010714
⅞	.00012500

Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal
.75	.01071428	1.63	.02328571
.76	.01085714	1.64	.02342856
.77	.01099999	1.65	.02357142
.78	.01114285	1.66	.02371428
.79	.01128571	1.67	.02385714
.80	.01142857	1.68	.02399999
.81	.01157143	1.69	.02414285
.82	.01171428	1.70	.02428571
.83	.01185714	1.71	.02442856
.84	.01199999	1.72	.02457142
.85	.01214285	1.73	.02471428
.86	.01228571	1.74	.02485714
.87	.01242857	1.75	.02499999
.88	.01257142	1.76	.02514285
.89	.01271428	1.77	.02528571
.90	.01285714	1.78	.02542856
.91	.01299999	1.79	.02557142
.92	.01314285	1.80	.02571428
.93	.01328571	1.81	.02585714
.94	.01342857	1.82	.02599999
.95	.01357142	1.83	.02614285
.96	.01371428	1.84	.02628571
.97	.01385714	1.85	.02642856
.98	.01399999	1.86	.02657142
.99	.01414285	1.87	.02671428
1.00	.01428571	1.88	.02685713
1.01	.01442857	1.89	.02699999
1.02	.01457142	1.90	.02714285
1.03	.01471428	1.91	.02728571
1.04	.01485714	1.92	.02742856
1.05	.01499999	1.93	.02757142
1.06	.01514285	1.94	.02771428
1.07	.01528571	1.95	.02785713
1.08	.01542857	1.96	.02799999
1.09	.01557142	1.97	.02814285
1.10	.01571428	1.98	.02828571
1.11	.01585714	1.99	.02842856
1.12	.01599999	2.00	.02857142
1.13	.01614285	2.01	.02871428
1.14	.01628571	2.02	.02885713
1.15	.01642857	2.03	.02899999
1.16	.01657142	2.04	.02914285
1.17	.01671428	2.05	.02928571
1.18	.01685714	2.06	.02942856
1.19	.01699999	2.07	.02957142
1.20	.01714285	2.08	.02971428
1.21	.01728571	2.09	.02985713
1.22	.01742857	2.10	.03
1.23	.01757142	2.11	.03014285
1.24	.01771428	2.12	.03028571
1.25	.01785714	2.13	.03042856
1.26	.01799999	2.14	.03057142
1.27	.01814285	2.15	.03071428
1.28	.01828571	2.16	.03085713
1.29	.01842857	2.17	.03099999
1.30	.01857142	2.18	.03114285
1.31	.01871428	2.19	.03128570
1.32	.01885714	2.20	.03142856
1.33	.01899999	2.21	.03157142
1.34	.01914285	2.22	.03171428
1.35	.01928571	2.23	.03185713
1.36	.01942857	2.24	.03199999
1.37	.01957142	2.25	.03214285
1.38	.01971428	2.26	.03228570
1.39	.01985714	2.27	.03242856
1.40	.02	2.28	.03257142
1.41	.02014285	2.29	.03271428
1.42	.02028571	2.30	.03285713
1.43	.02042857	2.31	.03299999
1.44	.02057142	2.32	.03314285
1.45	.02071428	2.33	.03328570
1.46	.02085714	2.34	.03342856
1.47	.02099999	2.35	.03357142
1.48	.02114285	2.36	.03371428

CORN—68 lbs. to bu.—Continued / CORN—70 lbs. to bu.—Continued

Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal
1.49	.02191176	2.37	.03485294	1.49	.02128571	2.37	.03385713
1.50	.02205882	2.38	.035	1.50	.02142857	2.38	.03399999
1.51	.02220588	2.39	.03514706	1.51	.02157142	2.39	.03414285
1.52	.02235294	2.40	.03529412	1.52	.02171428	2.40	.03428570
1.53	.0225	2.41	.03544117	1.53	.02185714	2.41	.03442856
1.54	.02264706	2.42	.03558823	1.54	.02199999	2.42	.03457142
1.55	.02279412	2.43	.03573529	1.55	.02214285	2.43	.03471428
1.56	.02294117	2.44	.03588235	1.56	.02228571	2.44	.03485713
1.57	.02308823	2.45	.03602941	1.57	.02242856	2.45	.03499999
1.58	.02323529	2.46	.03617647	1.58	.02257142	2.46	.03514285
1.59	.02338235	2.47	.03632353	1.59	.02271428	2.47	.03528570
1.60	.02352941	2.48	.03647059	1.60	.02285714	2.48	.03542856
1.61	.02367647	2.49	.03661765	1.61	.02299999	2.49	.03557142
1.62	.02382353	2.50	.03676470	1.62	.02314285	2.50	.03571428

OATS—32 lbs. to bu. / WHEAT—60 lbs. to bu.

Reciprocals for fractions to be added to reciprocal of whole number	.⅛	.0000390625
	.¼	.000078125
	.⅜	.0001171875
	.½	.00015625
	.⅝	.0001953125
	.¾	.000234375
	.⅞	.0002734375

Reciprocals for fractions to be added to reciprocal of whole number	.⅛	.0000208333
	.¼	.0000416667
	.⅜	.0000625
	.½	.0000833333
	.⅝	.0001041667
	.¾	.000125
	.⅞	.0001458333

Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal	Price per bu.	Decimal Reciprocal
.50	.015625	1.01	.0315625	2.00	.03333333	2.51	.04183341
.51	.0159375	1.02	.031875	2.01	.0335	2.52	.04200008
.52	.01625	1.03	.0321875	2.02	.03366667	2.53	.04216675
.53	.0165625	1.04	.0325	2.03	.03383333	2.54	.04233341
.54	.016875	1.05	.0328125	2.04	.034	2.55	.04250008
.55	.0171875	1.06	.033125	2.05	.03416667	2.56	.04266675
.56	.0175	1.07	.0334375	2.06	.03433333	2.57	.04283341
.57	.0178125	1.08	.03375	2.07	.0345	2.58	.04300008
.58	.018125	1.09	.0340625	2.08	.03466667	2.59	.04316675
.59	.0184375	1.10	.034375	2.09	.03483333	2.60	.04333342
.60	.01875	1.11	.0346875	2.10	.035	2.61	.04350008
.61	.0190625	1.12	.035	2.11	.03516667	2.62	.04366675
.62	.019375	1.13	.0353125	2.12	.03533333	2.63	.04383342
.63	.0196875	1.14	.035625	2.13	.0355	2.64	.04400008
.64	.02	1.15	.0359375	2.14	.03566667	2.65	.04416675
.65	.0203125	1.16	.03625	2.15	.03583333	2.66	.04433342
.66	.020625	1.17	.0365625	2.16	.036	2.67	.04450008
.67	.0209375	1.18	.036875	2.17	.03616667	2.68	.04466675
.68	.02125	1.19	.0371875	2.18	.03633333	2.69	.04483342
.69	.0215625	1.20	.0375	2.19	.0365	2.70	.04500008
.70	.021875	1.21	.0378125	2.20	.03666667	2.71	.04516675
.71	.0221875	1.22	.038125	2.21	.03683333	2.72	.04533342
.72	.0225	1.23	.0384375	2.22	.037	2.73	.04550009
.73	.0228125	1.24	.03875	2.23	.03716667	2.74	.04566675
.74	.023125	1.25	.0390625	2.24	.03733333	2.75	.04583342
.75	.0234375	1.26	.039375	2.25	.0375	2.76	.04600009
.76	.02375	1.27	.0396875	2.26	.03766667	2.77	.04616675
.77	.0240625	1.28	.04	2.27	.03783333	2.78	.04633342
.78	.024375	1.29	.0403125	2.28	.038	2.79	.04650009
.79	.0246875	1.30	.040625	2.29	.03816667	2.80	.04666675
.80	.025	1.31	.0409375	2.30	.03833333	2.81	.04683342
.81	.0253125	1.32	.04125	2.31	.0385	2.82	.04700009
.82	.025625	1.33	.0415625	2.32	.03866667	2.83	.04716676
.83	.0259375	1.34	.041875	2.33	.03883333	2.84	.04733342
.84	.02625	1.35	.0421875	2.34	.039	2.85	.04750009
.85	.0265625	1.36	.0425	2.35	.03916667	2.86	.04766676
.86	.026875	1.37	.0428125	2.36	.03933333	2.87	.04783342
.87	.0271875	1.38	.043125	2.37	.0395	2.88	.04800009
.88	.0275	1.39	.0434375	2.38	.03966667	2.89	.04816676
.89	.0278125	1.40	.04375	2.39	.03983333	2.90	.04833343
.90	.028125	1.41	.0440625	2.40	.04	2.91	.04850009
.91	.0284375	1.42	.044375	2.41	.04016667	2.92	.04866676
.92	.02875	1.43	.0446875	2.42	.04033333	2.93	.04883343
.93	.0290625	1.44	.045	2.43	.0405	2.94	.04900009
.94	.029375	1.45	.0453125	2.44	.04066667	2.95	.04916675
.95	.0296875	1.46	.045625	2.45	.04083333	2.96	.04933343
.96	.03	1.47	.0459375	2.46	.041	2.97	.04950009
.97	.0303125	1.48	.04625	2.47	.04116667	2.98	.04966676
.98	.030625	1.49	.0465625	2.48	.04133333	2.99	.04983343
.99	.0309375	1.50	.046875	2.49	.0415	3.00	.05
1.00	.03125			2.50	.04166667		

Grain Table—Decimals of a Bushel

WHEAT BEANS, PEAS, CLOVER, POTATOES 60 Lbs. to Bu.		CORN RYE, FLAX, APPLES 56 Lbs. to Bu.		BARLEY 48 Lbs. to Bu.		TIMOTHY 45 Lbs. to Bu.		OATS 32 Lbs. to Bu.		EAR CORN 70 Lbs. to Bu.		EAR CORN 68 Lbs. to Bu.	
Lbs.	Dec. of Bu.	Lbs.	Dec. of Bu.	Lbs.	Dec. of Bu.	Lbs.	Bu. Dec. of	Lbs.	Bu. Dec. of	Lbs.	Bu. Dec. of	Lbs.	Bu. Dec. of
1	.017	1	.018	1	.021	1	.022	1	.031	1	.014	1	.0147058
2	.033	2	.036	2	.042	2	.044	2	.063	2	.029	2	.0294116
3	.05	3	.054	3	.063	3	.067	3	.094	3	.043	3	.0441174
4	.067	4	.071	4	.083	4	.089	4	.125	4	.057	4	.0588232
5	.083	5	.089	5	.104	5	.111	5	.156	5	.071	5	.0735290
6	.1	6	.107	6	.125	6	.133	6	.188	6	.086	6	.0882348
7	.117	7	.125	7	.146	7	.156	7	.219	7	.1	7	.1029406
8	.133	8	.143	8	.167	8	.178	8	.25	8	.114	8	.1176464
9	.15	9	.161	9	.188	9	.2	9	.281	9	.129	9	.1323522
10	.167	10	.179	10	.208	10	.222	10	.313	10	.143	10	.1470580
11	.183	11	.196	11	.229	11	.244	11	.344	11	.157	11	.1617638
12	.2	12	.214	12	.25	12	.267	12	.375	12	.171	12	.1764696
13	.217	13	.232	13	.271	13	.289	13	.406	13	.185	13	.1911754
14	.233	14	.25	14	.292	14	.311	14	.438	14	.2	14	.2058812
15	.25	15	.268	15	.313	15	.333	15	.469	15	.214	15	.2205870
16	.267	16	.286	16	.333	16	.356	16	.5	16	.229	16	.2352928
17	.283	17	.304	17	.354	17	.378	17	.531	17	.243	17	.2499986
18	.3	18	.321	18	.375	18	.4	18	.563	18	.257	18	.2647044
19	.317	19	.339	19	.396	19	.422	19	.594	19	.271	19	.2794102
20	.333	20	.357	20	.417	20	.444	20	.625	20	.286	20	.2941160
21	.35	21	.375	21	.438	21	.467	21	.656	21	.3	21	.3088218
22	.367	22	.393	22	.458	22	.489	22	.688	22	.314	22	.3235276
23	.383	23	.411	23	.479	23	.511	23	.719	23	.329	23	.3382334
24	.4	24	.429	24	.5	24	.533	24	.75	24	.343	24	.3529392
25	.417	25	.446	25	.521	25	.556	25	.781	25	.357	25	.3676450
26	.433	26	.464	26	.542	26	.578	26	.813	26	.371	26	.3823508
27	.45	27	.482	27	.563	27	.6	27	.844	27	.386	27	.3970566
28	.467	28	.5	28	.583	28	.622	28	.875	28	.4	28	.4117624
29	.483	29	.518	29	.604	29	.644	29	.906	29	.414	29	.4264682
30	.5	30	.536	30	.625	30	.667	30	.938	30	.429	30	.4411740
31	.517	31	.554	31	.646	31	.689	31	.969	31	.443	31	.4558798
32	.533	32	.571	32	.667	32	.711			32	.457	32	.4705856
33	.55	33	.589	33	.688	33	.733			33	.471	33	.4852914
34	.567	34	.607	34	.708	34	.756			34	.486	34	.4999972
35	.583	35	.625	35	.729	35	.778			35	.5	35	.5147030
36	.6	36	.643	36	.75	36	.8			36	.514	36	.5294088
37	.617	37	.661	37	.771	37	.822			37	.529	37	.5441146
38	.633	38	.679	38	.792	38	.844			38	.543	38	.5588204
39	.65	39	.696	39	.813	39	.867			39	.557	39	.5735262
40	.667	40	.714	40	.833	40	.889			40	.571	40	.5882320
41	.683	41	.732	41	.854	41	.911			41	.586	41	.6029378
42	.7	42	.75	42	.875	42	.933			42	.6	42	.6176436
43	.717	43	.768	43	.896	43	.956			43	.614	43	.6323494
44	.733	44	.786	44	.917	44	.978			44	.629	44	.6470552
45	.75	45	.804	45	.938					45	.643	45	.6617610
46	.767	46	.821	46	.958					46	.657	46	.6764668
47	.783	47	.839	47	.979					47	.676	47	.6911726
48	.8	48	.857							48	.686	48	.7058784
49	.817	49	.875							49	.7	49	.7205842
50	.833	50	.893							50	.714	50	.7352900
51	.85	51	.911							51	.729	51	.7499958
52	.867	52	.929							52	.743	52	.7647016
53	.883	53	.946							53	.757	53	.7794074
54	.9	54	.964							54	.771	54	.7941132
55	.917	55	.982							55	.786	55	.8088190
56	.933									56	.8	56	.8235248
57	.95									57	.814	57	.8382306
58	.967									58	.829	58	.8529364
59	.983									59	.843	59	.8676422
										60	.857	60	.8823480
										61	.871	61	.8970538
										62	.886	62	.9117596
										63	.9	63	.9264654
										64	.914	64	.9411712
										65	.929	65	.9558770
										66	.943	66	.9705828
										67	.957	67	.9852886
										68	.971		
										69	.986		

Figuring Lumber on the SUNDSTRAND

The SUNDSTRAND will figure lumber estimates quickly and accurately. The method commonly used is to find a total of the running feet of lumber of a certain dimension, and compute the board feet in the lot by multiplying by thickness and dividing by twelve.
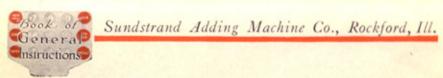
The SUNDSTRAND method, as shown in the two following pages is simply to take the figure representing the number of feet in one board of a certain length, breadth and thickness and multiplying by the number of pieces of this size.

Example:—Find the cost of 25 pieces 4 x 4-16 at $36.50 per thousand board feet.

The number of feet in one board 4 x 4-16 is 21.333. Multiplied by 25 we find there are 533 board feet of lumber. Multiplying this by $36.50 the price per thousand, and the result will be 1945450, pointing off five places from the right, gives us the correct answer of $19.45.

The SUNDSTRAND Chart for Figuring Lumber

		8	10	12	14	16	18	20	22	24
1" x	2	1.333	1.667	2.000	2.333	2.667	3.000	3.333	3.667	4.000
	3	2.000	2.500	3.000	3.500	4.000	4.500	5.000	5.500	6.000
	4	2.667	3.333	4.000	4.667	5.333	6.000	6.667	7.333	8.000
	5	3.333	4.167	5.000	5.833	6.667	7.500	8.333	9.167	10.000
	6	4.000	5.000	6.000	7.000	8.000	9.000	10.000	11.000	12.000
	7	4.667	5.833	7.000	8.167	9.333	10.500	11.667	12.833	14.000
	8	5.333	6.667	8.000	9.333	10.667	12.000	13.333	14.667	16.000
	10	6.667	8.333	10.000	11.667	13.333	15.000	16.667	18.333	20.000
	12	8.000	10.000	12.000	14.000	16.000	18.000	20.000	22.000	24.000
	14	9.333	11.667	14.000	16.333	18.667	21.000	23.333	25.667	28.000
	16	10.667	13.333	16.000	18.667	21.333	24.000	26.667	29.333	32.000
	18	12.000	15.000	18.000	21.333	24.000	27.000	30.000	33.000	36.000
	20	13.333	16.667	20.000	23.333	26.667	30.000	33.333	36.667	40.000
1¼" x	4	3.333	4.167	5.000	5.833	6.667	7.500	8.333	9.167	10.000
	5	4.167	5.208	6.250	7.991	8.333	9.375	10.416	11.458	12.500
	6	5.000	6.250	7.500	8.750	10.000	11.250	12.500	13.750	15.000
	8	6.667	8.333	10.000	11.667	13.333	15.000	16.667	18.333	20.000
	10	8.333	10.416	12.500	14.583	16.667	18.750	20.625	20.916	25.000
	12	10.000	12.500	15.000	17.500	20.000	22.500	25.000	27.500	30.000
	14	11.667	14.583	17.500	20.416	23.333	26.250	29.166	32.083	35.000
	16	13.333	16.667	20.000	23.333	26.667	30.000	33.333	36.667	40.000
	18	15.000	18.750	22.500	26.250	30.000	33.750	37.500	41.250	45.000
1½" x	4	4.000	5.000	6.000	7.000	8.000	9.000	10.000	11.000	12.000
	5	5.000	6.250	7.500	8.750	10.000	11.250	12.500	13.750	15.000
	6	6.000	7.500	9.000	10.500	12.000	13.500	15.000	16.500	18.000
	8	8.000	10.000	12.000	14.000	16.000	18.000	20.000	22.000	24.000
	10	10.000	12.500	15.000	17.500	20.000	22.500	25.000	27.500	30.000
	12	12.000	15.000	18.000	21.000	24.000	27.000	30.000	33.000	36.000
	14	14.000	17.500	21.000	24.500	28.000	31.500	35.000	38.500	42.000
	16	16.000	20.000	24.000	28.000	32.000	36.000	40.000	44.000	48.000
	18	18.000	22.500	27.000	31.500	36.000	40.500	45.000	50.500	54.000
2" x	4	5.333	6.667	8.000	9.333	10.667	12.000	13.333	14.667	16.000
	6	8.000	10.000	12.000	14.000	16.000	18.000	20.000	22.000	24.000
	8	10.667	13.333	16.000	18.667	21.333	24.000	26.667	29.333	32.000
	10	13.333	16.667	20.000	23.333	26.667	30.000	33.333	36.667	40.000
	12	16.000	20.000	24.000	28.000	32.000	36.000	40.000	44.000	48.000
	14	18.667	23.333	28.000	32.667	37.333	42.000	46.667	51.333	56.000
	16	21.333	26.667	32.000	37.500	42.667	48.000	53.333	58.667	64.000
	18	24.000	30.000	36.000	42.000	48.000	54.000	60.000	66.000	72.000
2½" x	12	20.000	25.000	30.000	35.000	40.000	45.000	50.000	55.000	60.000
	14	23.333	29.167	35.000	40.833	46.667	52.500	58.333	64.167	70.000
	16	26.667	33.333	40.000	46.667	53.333	60.000	66.667	73.333	80.003
	18	30.000	37.500	45.000	52.500	60.000	67.500	75.000	82.500	90.000
	20	33.333	41.667	50.000	58.333	66.667	75.000	83.333	91.667	00.000

The SUNDSTRAND Chart for Figuring Lumber

		8	10	12	14	16	18	20	22	24
3' x	6	12.000	15.000	18.000	21.000	24.000	27.000	30.000	33.000	36.000
	8	15.000	20.000	24.000	28.000	32.000	36.000	40.000	44.000	48.000
	10	20.000	25.000	30.000	35.000	40.000	45.000	50.000	55.000	60.000
	12	24.000	30.000	36.000	42.000	48.000	54.000	60.000	66.000	72.000
	14	28.000	35.000	42.000	49.000	56.000	63.000	70.000	77.000	84.000
	16	32.000	40.000	48.000	56.000	64.000	72.000	80.000	88.000	96.000
	18	36.000	45.000	54.000	63.000	72.000	81.000	90.000	99.000	108.000
4' x	4	10.667	13.333	16.000	18.667	21.333	24.000	26.667	29.333	32.000
	6	16.000	20.000	24.000	28.000	32.000	36.000	40.000	44.000	48.000
	8	21.333	26.667	32.000	37.333	42.667	48.000	53.333	58.667	64.000
	10	26.667	33.333	40.000	46.667	53.333	60.000	66.667	73.333	80.000
	12	32.000	40.000	48.000	56.000	64.000	72.000	80.000	88.000	96.000
	14	37.333	46.667	56.000	65.333	74.667	84.000	93.333	102.667	112.000
6' x	6	24.000	30.000	36.000	42.000	48.000	54.000	60.000	66.000	72.000
	8	32.000	40.000	48.000	56.000	64.000	72.000	80.000	88.000	96.000
	10	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000
	12	48.000	60.000	72.000	84.000	96.000	108.000	120.000	132.000	144.000
	14	56.000	70.000	84.000	98.000	112.000	126.000	140.000	154.000	168.000
	16	64.000	80.000	96.000	112.000	128.000	144.000	160.000	176.000	192.000
	18	72.000	90.000	108.000	126.000	144.000	162.000	180.000	198.000	216.000
8' x	8	47.667	53.333	64.000	74.667	85.333	96.000	106.667	117.333	128.000
	10	53.333	66.667	80.000	93.333	106.667	120.000	133.333	146.667	160.000
	12	64.000	80.000	96.000	112.000	128.000	144.000	160.000	176.000	192.000
	14	74.667	93.333	112.000	130.667	149.333	168.000	186.667	205.333	224.000
	16	85.333	106.667	128.000	149.333	170.667	192.000	213.333	234.667	256.000
	18	96.000	120.000	144.000	168.000	192.000	216.000	240.000	264.000	288.000
10' x	10	66.667	83.333	100.000	116.667	133.333	150.000	166.667	183.333	200.000
	12	80.000	100.000	120.000	140.000	160.000	180.000	200.000	220.000	240.000
	14	93.333	116.667	140.000	163.333	186.667	210.000	233.333	256.667	280.000
	16	106.667	133.333	160.000	186.667	213.333	240.000	266.667	293.333	320.000
	18	120.000	150.000	180.000	210.000	240.000	270.000	300.000	330.000	360.000
12' x	12	96.000	120.000	144.000	168.000	192.000	216.000	240.000	264.000	288.000
	14	112.000	140.000	168.000	196.000	224.000	252.000	280.000	308.000	336.000
	16	128.000	160.000	192.000	224.000	256.000	288.000	320.000	352.000	384.000
	18	144.000	180.000	216.000	252.000	288.000	324.000	360.000	396.000	432.000
	14	130.667	163.333	196.000	228.667	261.333	294.000	326.667	359.000	392.000
	16	149.333	186.667	224.000	261.333	298.667	336.000	373.333	410.667	448.000
	18	168.000	210.000	252.000	294.000	336.000	378.000	420.000	462.000	504.000
	20	186.667	233.333	280.000	326.667	373.333	420.000	466.667	513.333	560.000

14' x

		26	28	30	32	34	36	38	40	42
	14	424.667	457.333	490.000	522.667	555.333	588.000	620.667	653.333	686.000
	16	485.333	522.667	560.000	597.333	634.667	672.000	709.333	746.667	784.000
	18	546.000	588.000	630.000	672.000	714.000	756.000	798.000	840.000	882.000
	20	606.667	653.333	700.000	746.667	793.333	840.000	886.667	933.333	980.000

Reciprocals of Numbers—1 to 288

No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal
1	1.0000000	37	.0270270	73	.0136986	109	.0091743	145	.0068966	181	.0055249	217	.0046083	253	.0039526
2	0.5000000	38	.0263158	74	.0135135	110	.0090909	146	.0068493	182	.0054945	218	.0045872	254	.0039370
3	.3333333	39	.0256410	75	.0133333	111	.0090090	147	.0068027	183	.0054645	219	.0045662	255	.0039216
4	.2500000	40	.0250000	76	.0131579	112	.0089286	148	.0067568	184	.0054348	220	.0045455	256	.0039063
5	.2000000	41	.0243902	77	.0129870	113	.0088496	149	.0067114	185	.0054054	221	.0045249	257	.0038911
6	.1666667	42	.0238095	78	.0128205	114	.0087719	150	.0066667	186	.0053763	222	.0045045	258	.0038760
7	.1428571	43	.0232558	79	.0126582	115	.0086957	151	.0066225	187	.0053476	223	.0044843	259	.0038610
8	.1250000	44	.0227273	80	.0125000	116	.0086207	152	.0065789	188	.0053191	224	.0044643	260	.0038462
9	.1111111	45	.0222222	81	.0123457	117	.0085470	153	.0065359	189	.0052910	225	.0044444	261	.0038314
10	.1000000	46	.0217391	82	.0121951	118	.0084746	154	.0064935	190	.0052632	226	.0044248	262	.0038168
11	.0909091	47	.0212766	83	.0120482	119	.0084034	155	.0064516	191	.0052356	227	.0044053	263	.0038023
12	.0833333	48	.0208333	84	.0119048	120	.0083333	156	.0064103	192	.0052083	228	.0043860	264	.0037879
13	.0769231	49	.0204082	85	.0117647	121	.0082645	157	.0063694	193	.0051813	229	.0043668	265	.0037736
14	.0714286	50	.0200000	86	.0116279	122	.0081967	158	.0063291	194	.0051546	230	.0043478	266	.0037594
15	.0666667	51	.0196078	87	.0114943	123	.0081301	159	.0062893	195	.0051282	231	.0043290	267	.0037453
16	.0625000	52	.0192308	88	.0113636	124	.0080645	160	.0062500	196	.0051020	232	.0043103	268	.0037313
17	.0588235	53	.0188679	89	.0112360	125	.0080000	161	.0062112	197	.0050761	233	.0042918	269	.0037175
18	.0555556	54	.0185185	90	.0111111	126	.0079365	162	.0061728	198	.0050505	234	.0042735	270	.0037037
19	.0526316	55	.0181818	91	.0109890	127	.0078740	163	.0061350	199	.0050251	235	.0042553	271	.0036900
20	.0500000	56	.0178571	92	.0108696	128	.0078125	164	.0060976	200	.0050000	236	.0042373	272	.0036765
21	.0476190	57	.0175439	93	.0107527	129	.0077519	165	.0060606	201	.0049751	237	.0042194	273	.0036630
22	.0454545	58	.0172414	94	.0106383	130	.0076923	166	.0060241	202	.0049505	238	.0042017	274	.0036496
23	.0434783	59	.0169492	95	.0105263	131	.0076336	167	.0059880	203	.0049261	239	.0041841	275	.0036364
24	.0416667	60	.0166667	96	.0104167	132	.0075758	168	.0059524	204	.0049020	240	.0041667	276	.0036232
25	.0400000	61	.0163934	97	.0103093	133	.0075188	169	.0059172	205	.0048780	241	.0041494	277	.0036101
26	.0384615	62	.0161290	98	.0102041	134	.0074627	170	.0058824	206	.0048544	242	.0041322	278	.0035971
27	.0370370	63	.0158730	99	.0101010	135	.0074074	171	.0058480	207	.0048309	243	.0041152	279	.0035842
28	.0357143	64	.0156250	100	.0100000	136	.0073529	172	.0058140	208	.0048077	244	.0040984	280	.0035714
29	.0344828	65	.0153846	101	.0099010	137	.0072993	173	.0057803	209	.0047847	245	.0040816	281	.0035587
30	.0333333	66	.0151515	102	.0098039	138	.0072464	174	.0057471	210	.0047619	246	.0040650	282	.0035461
31	.0322581	67	.0149254	103	.0097087	139	.0071942	175	.0057143	211	.0047393	247	.0040486	283	.0035336
32	.0312500	68	.0147059	104	.0096154	140	.0071429	176	.0056818	212	.0047170	248	.0040323	284	.0035211
33	.0303030	69	.0144928	105	.0095238	141	.0070922	177	.0056497	213	.0046948	249	.0040161	285	.0035088
34	.0294118	70	.0142857	106	.0094340	142	.0070423	178	.0056180	214	.0046729	250	.0040000	286	.0034965
35	.0285714	71	.0140845	107	.0093458	143	.0069930	179	.0055866	215	.0046512	251	.0039841	287	.0034843
36	.0277778	72	.0138889	108	.0092593	144	.0069444	180	.0055556	216	.0046296	252	.0039683	288	.0034722

No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal
289	.0034602	325	.0030769	361	.0027701	397	.0025189	433	.0023095	469	.0021322	505	.0019802	541	.0018484	577	.0017331
290	.0034483	326	.0030675	362	.0027624	398	.0025126	434	.0023041	470	.0021277	506	.0019763	542	.0018450	578	.0017301
291	.0034364	327	.0030581	363	.0027548	399	.0025063	435	.0022989	471	.0021231	507	.0019724	543	.0018416	579	.0017271
292	.0034247	328	.0030488	364	.0027473	400	.0025000	436	.0022936	472	.0021186	508	.0019685	544	.0018382	580	.0017241
293	.0034130	329	.0030395	365	.0027397	401	.0024938	437	.0022883	473	.0021142	509	.0019646	545	.0018347	581	.0017212
294	.0034014	330	.0030303	366	.0027322	402	.0024876	438	.0022831	474	.0021097	510	.0019608	546	.0018315	582	.0017182
295	.0033898	331	.0030211	367	.0027248	403	.0024814	439	.0022779	475	.0021053	511	.0019569	547	.0018282	583	.0017153
296	.0033784	332	.0030120	368	.0027174	404	.0024752	440	.0022727	476	.0021008	512	.0019531	548	.0018248	584	.0017123
297	.0033670	333	.0030030	369	.0027100	405	.0024691	441	.0022676	477	.0020964	513	.0019493	549	.0018215	585	.0017094
298	.0033557	334	.0029940	370	.0027027	406	.0024631	442	.0022624	478	.0020921	514	.0019455	550	.0018182	586	.0017065
299	.0033445	335	.0029851	371	.0026954	407	.0024570	443	.0022573	479	.0020877	515	.0019417	551	.0018149	587	.0017036
300	.0033333	336	.0029762	372	.0026882	408	.0024510	444	.0022523	480	.0020833	516	.0019380	552	.0018116	588	.0017007
301	.0033223	337	.0029674	373	.0026810	409	.0024450	445	.0022472	481	.0020790	517	.0019342	553	.0018083	589	.0016978
302	.0033113	338	.0029586	374	.0026738	410	.0024390	446	.0022422	482	.0020747	518	.0019305	554	.0018051	590	.0016949
303	.0033003	339	.0029499	375	.0026667	411	.0024331	447	.0022371	483	.0020704	519	.0019268	555	.0018018	591	.0016920
304	.0032895	340	.0029412	376	.0026596	412	.0024272	448	.0022321	484	.0020661	520	.0019231	556	.0017986	592	.0016892
305	.0032787	341	.0029326	377	.0026525	413	.0024213	449	.0022272	485	.0020619	521	.0019194	557	.0017953	593	.0016863
306	.0032680	342	.0029240	378	.0026455	414	.0024155	450	.0022222	486	.0020576	522	.0019157	558	.0017921	594	.0016835
307	.0032573	343	.0029155	379	.0026385	415	.0024096	451	.0022173	487	.0020534	523	.0019120	559	.0017889	595	.0016807
308	.0032468	344	.0029070	380	.0026316	416	.0024038	452	.0022124	488	.0020492	524	.0019084	560	.0017857	596	.0016779
309	.0032362	345	.0028986	381	.0026247	417	.0023981	453	.0022075	489	.0020450	525	.0019048	561	.0017825	597	.0016750
310	.0032258	346	.0028902	382	.0026178	418	.0023923	454	.0022026	490	.0020408	526	.0019011	562	.0017794	598	.0016722
311	.0032154	347	.0028818	383	.0026110	419	.0023866	455	.0021978	491	.0020367	527	.0018975	563	.0017762	599	.0016694
312	.0032051	348	.0028736	384	.0026042	420	.0023810	456	.0021930	492	.0020325	528	.0018939	564	.0017731	600	.0016667
313	.0031949	349	.0028653	385	.0025974	421	.0023753	457	.0021882	493	.0020284	529	.0018904	565	.0017699	601	.0016639
314	.0031847	350	.0028571	386	.0025907	422	.0023697	458	.0021834	494	.0020242	530	.0018868	566	.0017668	602	.0016611
315	.0031746	351	.0028490	387	.0025840	423	.0023641	459	.0021786	495	.0020202	531	.0018832	567	.0017637	603	.0016584
316	.0031646	352	.0028409	388	.0025773	424	.0023585	460	.0021739	496	.0020161	532	.0018797	568	.0017606	604	.0016556
317	.0031546	353	.0028329	389	.0025707	425	.0023529	461	.0021692	497	.0020121	533	.0018762	569	.0017575	605	.0016529
318	.0031447	354	.0028249	390	.0025641	426	.0023474	462	.0021645	498	.0020080	534	.0018727	570	.0017544	606	.0016502
319	.0031348	355	.0028169	391	.0025575	427	.0023419	463	.0021598	499	.0020040	535	.0018692	571	.0017513	607	.0016474
320	.0031250	356	.0028090	392	.0025510	428	.0023364	464	.0021552	500	.0020000	536	.0018657	572	.0017483	608	.0016447
321	.0031153	357	.0028011	393	.0025445	429	.0023310	465	.0021505	501	.0019960	537	.0018622	573	.0017452	609	.0016420
322	.0031056	358	.0027933	394	.0025381	430	.0023256	466	.0021459	502	.0019920	538	.0018587	574	.0017422	610	.0016393
323	.0030960	359	.0027855	395	.0025316	431	.0023202	467	.0021413	503	.0019881	539	.0018553	575	.0017391	611	.0016367
324	.0030864	360	.0027778	396	.0025253	432	.0023148	468	.0021368	504	.0019841	540	.0018519	576	.0017361	612	.0016340

No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal
613	.0016313	649	.0015408	685	.0014599	721	.0013870	757	.0013210	793	.0012610	829	.0012063	865	.0011561	901	.0011099
614	.0016287	650	.0015385	686	.0014577	722	.0013850	758	.0013193	794	.0012594	830	.0012048	866	.0011547	902	.0011086
615	.0016260	651	.0015361	687	.0014556	723	.0013831	759	.0013175	795	.0012579	831	.0012034	867	.0011534	903	.0011074
616	.0016234	652	.0015337	688	.0014535	724	.0013812	760	.0013158	796	.0012563	832	.0012019	868	.0011521	904	.0011062
617	.0016207	653	.0015314	689	.0014514	725	.0013793	761	.0013141	797	.0012547	833	.0012005	869	.0011507	905	.0011050
618	.0016181	654	.0015291	690	.0014493	726	.0013774	762	.0013123	798	.0012531	834	.0011990	870	.0011494	906	.0011038
619	.0016155	655	.0015267	691	.0014472	727	.0013755	763	.0013106	799	.0012516	835	.0011976	871	.0011481	907	.0011025
620	.0016129	656	.0015244	692	.0014451	728	.0013736	764	.0013089	800	.0012500	836	.0011962	872	.0011468	908	.0011013
621	.0016103	657	.0015221	693	.0014430	729	.0013717	765	.0013072	801	.0012484	837	.0011947	873	.0011455	909	.0011001
622	.0016077	658	.0015198	694	.0014409	730	.0013699	766	.0013055	802	.0012469	838	.0011933	874	.0011442	910	.0010989
623	.0016051	659	.0015175	695	.0014388	731	.0013680	767	.0013038	803	.0012453	839	.0011919	875	.0011429	911	.0010977
624	.0016026	660	.0015152	696	.0014368	732	.0013661	768	.0013021	804	.0012438	840	.0011905	876	.0011416	912	.0010965
625	.0016000	661	.0015129	697	.0014347	733	.0013643	769	.0013004	805	.0012422	841	.0011891	877	.0011403	913	.0010953
626	.0015974	662	.0015106	698	.0014327	734	.0013624	770	.0012987	806	.0012407	842	.0011876	878	.0011390	914	.0010941
627	.0015949	663	.0015083	699	.0014306	735	.0013605	771	.0012970	807	.0012392	843	.0011862	879	.0011377	915	.0010929
628	.0015924	664	.0015060	700	.0014286	736	.0013587	772	.0012953	808	.0012376	844	.0011848	880	.0011364	916	.0010917
629	.0015898	665	.0015038	701	.0014265	737	.0013569	773	.0012937	809	.0012361	845	.0011834	881	.0011351	917	.0010905
630	.0015873	666	.0015015	702	.0014245	738	.0013550	774	.0012920	810	.0012346	846	.0011820	882	.0011338	918	.0010893
631	.0015848	667	.0014993	703	.0014225	739	.0013532	775	.0012903	811	.0012330	847	.0011806	883	.0011325	919	.0010881
632	.0015823	668	.0014970	704	.0014205	740	.0013514	776	.0012887	812	.0012315	848	.0011792	884	.0011312	920	.0010870
633	.0015798	669	.0014948	705	.0014185	741	.0013495	777	.0012870	813	.0012300	849	.0011779	885	.0011299	921	.0010858
634	.0015773	670	.0014925	706	.0014164	742	.0013477	778	.0012853	814	.0012285	850	.0011765	886	.0011287	922	.0010846
635	.0015748	671	.0014903	707	.0014144	743	.0013459	779	.0012837	815	.0012270	851	.0011751	887	.0011274	923	.0010834
636	.0015723	672	.0014881	708	.0014124	744	.0013441	780	.0012821	816	.0012255	852	.0011737	888	.0011261	924	.0010822
637	.0015699	673	.0014859	709	.0014104	745	.0013423	781	.0012804	817	.0012240	853	.0011723	889	.0011249	925	.0010811
638	.0015674	674	.0014837	710	.0014085	746	.0013405	782	.0012788	818	.0012225	854	.0011710	890	.0011236	926	.0010799
639	.0015649	675	.0014815	711	.0014065	747	.0013387	783	.0012771	819	.0012210	855	.0011696	891	.0011223	927	.0010787
640	.0015625	676	.0014793	712	.0014045	748	.0013369	784	.0012755	820	.0012195	856	.0011682	892	.0011211	928	.0010776
641	.0015601	677	.0014771	713	.0014025	749	.0013351	785	.0012739	821	.0012180	857	.0011669	893	.0011198	929	.0010764
642	.0015576	678	.0014749	714	.0014006	750	.0013333	786	.0012723	822	.0012165	858	.0011655	894	.0011186	930	.0010753
643	.0015552	679	.0014728	715	.0013986	751	.0013315	787	.0012706	823	.0012151	859	.0011641	895	.0011173	931	.0010741
644	.0015528	680	.0014706	716	.0013966	752	.0013298	788	.0012690	824	.0012136	860	.0011628	896	.0011161	932	.0010730
645	.0015504	681	.0014684	717	.0013947	753	.0013280	789	.0012674	825	.0012121	861	.0011614	897	.0011148	933	.0010718
646	.0015480	682	.0014663	718	.0013928	754	.0013263	790	.0012658	826	.0012107	862	.0011601	898	.0011136	934	.0010707
647	.0015456	683	.0014641	719	.0013908	755	.0013245	791	.0012642	827	.0012092	863	.0011587	899	.0011123	935	.0010695
648	.0015432	684	.0014620	720	.0013889	756	.0013228	792	.0012626	828	.0012077	864	.0011574	900	.0011111	936	.0010684

Reciprocals of Numbers—937 to 1224

No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal
937	.0010672	973	.0010277	1009	.0009911	1045	.0009569	1081	.0009251	1117	.0008953	1153	.0008673	1189	.0008410
938	.0010661	974	.0010267	1010	.0009901	1046	.0009560	1082	.0009242	1118	.0008945	1154	.0008666	1190	.0008403
939	.0010650	975	.0010256	1011	.0009891	1047	.0009551	1083	.0009234	1119	.0008937	1155	.0008658	1191	.0008396
940	.0010638	976	.0010246	1012	.0009881	1048	.0009542	1084	.0009225	1120	.0008929	1156	.0008651	1192	.0008389
941	.0010627	977	.0010235	1013	.0009872	1049	.0009533	1085	.0009217	1121	.0008921	1157	.0008643	1193	.0008382
942	.0010616	978	.0010225	1014	.0009862	1050	.0009524	1086	.0009208	1122	.0008913	1158	.0008636	1194	.0008375
943	.0010604	979	.0010215	1015	.0009852	1051	.0009515	1087	.0009200	1123	.0008905	1159	.0008628	1195	.0008368
944	.0010593	980	.0010204	1016	.0009843	1052	.0009506	1088	.0009191	1124	.0008897	1160	.0008621	1196	.0008361
945	.0010582	981	.0010194	1017	.0009833	1053	.0009497	1089	.0009183	1125	.0008889	1161	.0008613	1197	.0008354
946	.0010571	982	.0010183	1018	.0009823	1054	.0009488	1090	.0009174	1126	.0008881	1162	.0008606	1198	.0008347
947	.0010560	983	.0010173	1019	.0009814	1055	.0009479	1091	.0009166	1127	.0008873	1163	.0008598	1199	.0008340
948	.0010549	984	.0010163	1020	.0009804	1056	.0009470	1092	.0009158	1128	.0008865	1164	.0008591	1200	.0008333
949	.0010537	985	.0010152	1021	.0009794	1057	.0009461	1093	.0009149	1129	.0008857	1165	.0008584	1201	.0008326
950	.0010526	986	.0010142	1022	.0009785	1058	.0009452	1094	.0009141	1130	.0008850	1166	.0008576	1202	.0008319
951	.0010515	987	.0010132	1023	.0009775	1059	.0009443	1095	.0009132	1131	.0008842	1167	.0008569	1203	.0008313
952	.0010504	988	.0010121	1024	.0009766	1060	.0009434	1096	.0009124	1132	.0008834	1168	.0008562	1204	.0008306
953	.0010493	989	.0010111	1025	.0009756	1061	.0009425	1097	.0009116	1133	.0008826	1169	.0008554	1205	.0008299
954	.0010482	990	.0010101	1026	.0009747	1062	.0009416	1098	.0009107	1134	.0008818	1170	.0008547	1206	.0008292
955	.0010471	991	.0010091	1027	.0009737	1063	.0009407	1099	.0009099	1135	.0008811	1171	.0008540	1207	.0008285
956	.0010460	992	.0010081	1028	.0009728	1064	.0009398	1100	.0009091	1136	.0008803	1172	.0008532	1208	.0008278
957	.0010449	993	.0010070	1029	.0009718	1065	.0009390	1101	.0009083	1137	.0008795	1173	.0008525	1209	.0008271
958	.0010438	994	.0010060	1030	.0009709	1066	.0009381	1102	.0009074	1138	.0008787	1174	.0008518	1210	.0008264
959	.0010428	995	.0010050	1031	.0009699	1067	.0009372	1103	.0009066	1139	.0008780	1175	.0008511	1211	.0008258
960	.0010417	996	.0010040	1032	.0009690	1068	.0009363	1104	.0009058	1140	.0008772	1176	.0008503	1212	.0008251
961	.0010406	997	.0010030	1033	.0009681	1069	.0009355	1105	.0009050	1141	.0008764	1177	.0008496	1213	.0008244
962	.0010395	998	.0010020	1034	.0009671	1070	.0009346	1106	.0009042	1142	.0008757	1178	.0008489	1214	.0008237
963	.0010384	999	.0010010	1035	.0009662	1071	.0009337	1107	.0009033	1143	.0008749	1179	.0008482	1215	.0008230
964	.0010373	1000	.0010000	1036	.0009653	1072	.0009328	1108	.0009025	1144	.0008741	1180	.0008475	1216	.0008224
965	.0010363	1001	.0009990	1037	.0009643	1073	.0009320	1109	.0009017	1145	.0008734	1181	.0008467	1217	.0008217
966	.0010352	1002	.0009980	1038	.0009634	1074	.0009311	1110	.0009009	1146	.0008726	1182	.0008460	1218	.0008210
967	.0010341	1003	.0009970	1039	.0009625	1075	.0009302	1111	.0009001	1147	.0008718	1183	.0008453	1219	.0008203
968	.0010331	1004	.0009960	1040	.0009615	1076	.0009294	1112	.0008993	1148	.0008711	1184	.0008446	1220	.0008197
969	.0010320	1005	.0009950	1041	.0009606	1077	.0009285	1113	.0008985	1149	.0008703	1185	.0008439	1221	.0008190
970	.0010309	1006	.0009940	1042	.0009597	1078	.0009276	1114	.0008977	1150	.0008696	1186	.0008432	1222	.0008183
971	.0010299	1007	.0009930	1043	.0009588	1079	.0009268	1115	.0008969	1151	.0008688	1187	.0008425	1223	.0008177
972	.0010289	1008	.0009921	1044	.0009579	1080	.0009259	1116	.0008961	1152	.0008681	1188	.0008418	1224	.0008170

Reciprocals of Numbers—1225 to 1512

No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal	No.	Reciprocal
1225	.0008163	1261	.0007930	1297	.0007710	1333	.0007502	1369	.0007305	1405	.0007117	1441	.0006940	1477	.0006770
1226	.0008157	1262	.0007924	1298	.0007704	1334	.0007496	1370	.0007299	1406	.0007112	1442	.0006935	1478	.0006766
1227	.0008150	1263	.0007918	1299	.0007698	1335	.0007491	1371	.0007294	1407	.0007107	1443	.0006930	1479	.0006761
1228	.0008143	1264	.0007911	1300	.0007692	1336	.0007485	1372	.0007289	1408	.0007102	1444	.0006925	1480	.0006757
1229	.0008137	1265	.0007905	1301	.0007686	1337	.0007479	1373	.0007283	1409	.0007097	1445	.0006920	1481	.0006752
1230	.0008130	1266	.0007899	1302	.0007680	1338	.0007474	1374	.0007278	1410	.0007092	1446	.0006916	1482	.0006748
1231	.0008123	1267	.0007893	1303	.0007675	1339	.0007468	1375	.0007273	1411	.0007087	1447	.0006911	1483	.0006743
1232	.0008117	1268	.0007886	1304	.0007669	1340	.0007463	1376	.0007267	1412	.0007082	1448	.0006906	1484	.0006739
1233	.0008110	1269	.0007880	1305	.0007663	1341	.0007457	1377	.0007262	1413	.0007077	1449	.0006901	1485	.0006734
1234	.0008104	1270	.0007874	1306	.0007657	1342	.0007452	1378	.0007257	1414	.0007072	1450	.0006897	1486	.0006729
1235	.0008097	1271	.0007868	1307	.0007651	1343	.0007446	1379	.0007252	1415	.0007067	1451	.0006892	1487	.0006725
1236	.0008091	1272	.0007862	1308	.0007645	1344	.0007440	1380	.0007246	1416	.0007062	1452	.0006887	1488	.0006720
1237	.0008084	1273	.0007855	1309	.0007639	1345	.0007435	1381	.0007241	1417	.0007057	1453	.0006882	1489	.0006716
1238	.0008078	1274	.0007849	1310	.0007634	1346	.0007429	1382	.0007236	1418	.0007052	1454	.0006878	1490	.0006711
1239	.0008071	1275	.0007843	1311	.0007628	1347	.0007424	1383	.0007231	1419	.0007047	1455	.0006873	1491	.0006707
1240	.0008065	1276	.0007837	1312	.0007622	1348	.0007418	1384	.0007225	1420	.0007042	1456	.0006868	1492	.0006702
1241	.0008058	1277	.0007831	1313	.0007616	1349	.0007413	1385	.0007220	1421	.0007037	1457	.0006863	1493	.0006698
1242	.0008052	1278	.0007825	1314	.0007610	1350	.0007407	1386	.0007215	1422	.0007032	1458	.0006859	1494	.0006693
1243	.0008045	1279	.0007819	1315	.0007605	1351	.0007402	1387	.0007210	1423	.0007027	1459	.0006854	1495	.0006689
1244	.0008039	1280	.0007813	1316	.0007599	1352	.0007396	1388	.0007205	1424	.0007022	1460	.0006849	1496	.0006684
1245	.0008032	1281	.0007806	1317	.0007593	1353	.0007391	1389	.0007199	1425	.0007018	1461	.0006845	1497	.0006680
1246	.0008026	1282	.0007800	1318	.0007587	1354	.0007386	1390	.0007194	1426	.0007013	1462	.0006840	1498	.0006675
1247	.0008019	1283	.0007794	1319	.0007582	1355	.0007380	1391	.0007189	1427	.0007008	1463	.0006835	1499	.0006671
1248	.0008013	1284	.0007788	1320	.0007576	1356	.0007375	1392	.0007184	1428	.0007003	1464	.0006831	1500	.0006667
1249	.0008006	1285	.0007782	1321	.0007570	1357	.0007369	1393	.0007179	1429	.0006998	1465	.0006826	1501	.0006662
1250	.0008000	1286	.0007776	1322	.0007564	1358	.0007364	1394	.0007174	1430	.0006993	1466	.0006821	1502	.0006658
1251	.0007994	1287	.0007770	1323	.0007559	1359	.0007358	1395	.0007168	1431	.0006988	1467	.0006817	1503	.0006653
1252	.0007987	1288	.0007764	1324	.0007553	1360	.0007353	1396	.0007163	1432	.0006983	1468	.0006812	1504	.0006649
1253	.0007981	1289	.0007758	1325	.0007547	1361	.0007348	1397	.0007158	1433	.0006978	1469	.0006807	1505	.0006645
1254	.0007974	1290	.0007752	1326	.0007541	1362	.0007342	1398	.0007153	1434	.0006973	1470	.0006803	1506	.0006640
1255	.0007968	1291	.0007746	1327	.0007536	1363	.0007337	1399	.0007148	1435	.0006969	1471	.0006798	1507	.0006636
1256	.0007962	1292	.0007740	1328	.0007530	1364	.0007331	1400	.0007143	1436	.0006964	1472	.0006793	1508	.0006631
1257	.0007955	1293	.0007734	1329	.0007524	1365	.0007326	1401	.0007138	1437	.0006959	1473	.0006789	1509	.0006627
1258	.0007949	1294	.0007728	1330	.0007519	1366	.0007321	1402	.0007133	1438	.0006954	1474	.0006784	1510	.0006623
1259	.0007943	1295	.0007722	1331	.0007513	1367	.0007315	1403	.0007128	1439	.0006949	1475	.0006780	1511	.0006618
1260	.0007937	1296	.0007716	1332	.0007508	1368	.0007310	1404	.0007123	1440	.0006944	1476	.0006775	1512	.0006614

Sundstrand
ADDING AND CALCULATING MACHINE

Illustrating the Improved electric drive on the SUNDSTRAND

A tap of a convenient bar takes the place of the handle pull. The motor does the work.

The Sundstrand electric drive can be operated at top speed all day long without tiring the operator.

The guarantee you get with the SUNDSTRAND Figuring Machine

❧ When you buy a SUND-STRAND you know you are buying a product that is backed by the manufacturers — first, last and all the time.

❧ With every SUNDSTRAND a guarantee bond is issued that reads as follows:

We Hereby Certify That SUNDSTRAND

MACHINE NO.............MODEL.............
and sold to...
has been tested and found up to our standard of efficiency and is absolutely free from imperfections in material and workmanship.

We hereby agree to replace, free of charge, any part or parts proving defective either in material or workmanship (accident and misuse excepted) within a period of one year from this date.

SUNDSTRAND ADDING MACHINE CO.
By..

Executed at Rockford, Illinois, this........
day of....................................19.............