

Livermore Heritage Guild's 1920-26 Dalton Adding Machine



Rev. A - 11/13/2013
Harry Briley

Docent Operation

FIGURE IT ON YOUR



"The machine that does things"

Fewer Keys! Greater Speed!

To write 923 on the Dalton just strike the only 9, the only 2, the only 3 on the key board. No time is lost selecting a 9 in the hundreds column, a 2 in the tens, a 3 in the units. The Dalton prints each figure in the proper column automatically. The Dalton's simple key board insures incredible speed, obviates misreading of figures, reduces eye strain and lessens fatigue.

Dalton
ADDING LISTING AND CALCULATING MACHINE

Some of the Big Users of the Dalton

U.S. Government	2000
Pennsylvania R. R.	200
International Harvester Co.	100
General Chemical Co.	25
Amer. Weather Co.	25

Hundreds of the most successful business men use the Dalton the simplest, the quickest, the most accurate machine for all their adding, multiplying, subtracting, dividing, calculating, figuring interest, discounts, etc.

See the Dalton's built right in any of the one hundred leading stores or write for booklet.



The Dalton
 Adding Machine Co.
 100 West Street
 Norwood, Cincinnati, Ohio

- The Dalton was the **first ten key adding machine** and introduced in 1902. It became one of the most popular 10 key adders. It was patented in 1912
- Early models had glass inserts to view the gears calculating the answers. By the 1920's over 150 models had been designed and the glass windows ceased
- It's a hand crank machine
- The little square “silver window” is used to release untripped hammers
- As long as it operates, it is considered in good to very good condition

- Our Serial# **70521**, with a large carriage and four red keys on the left-hand side, appears manufactured in **1920-1926**, prior to the 1927 “Non-Print Key” patent
 - Dating and photos via: <http://francis-teyssier.com/dalton.php>
- Dalton merged with other companies to become Remington Rand in 1927. The 1928 Remington Rand catalog offered Dalton branded adding-listing machines

- Web-sites with many photos of pre-computer adding machines devices
 - http://www.officemuseum.com/calculating_machines_adding_listing.htm
 - <http://www.prehistoriadelainformatica.com/calculadoras-calculators/>
 - http://www.xnumber.com/xnumber/frame_malbum.htm

From Original Manual:



From Original Manual:

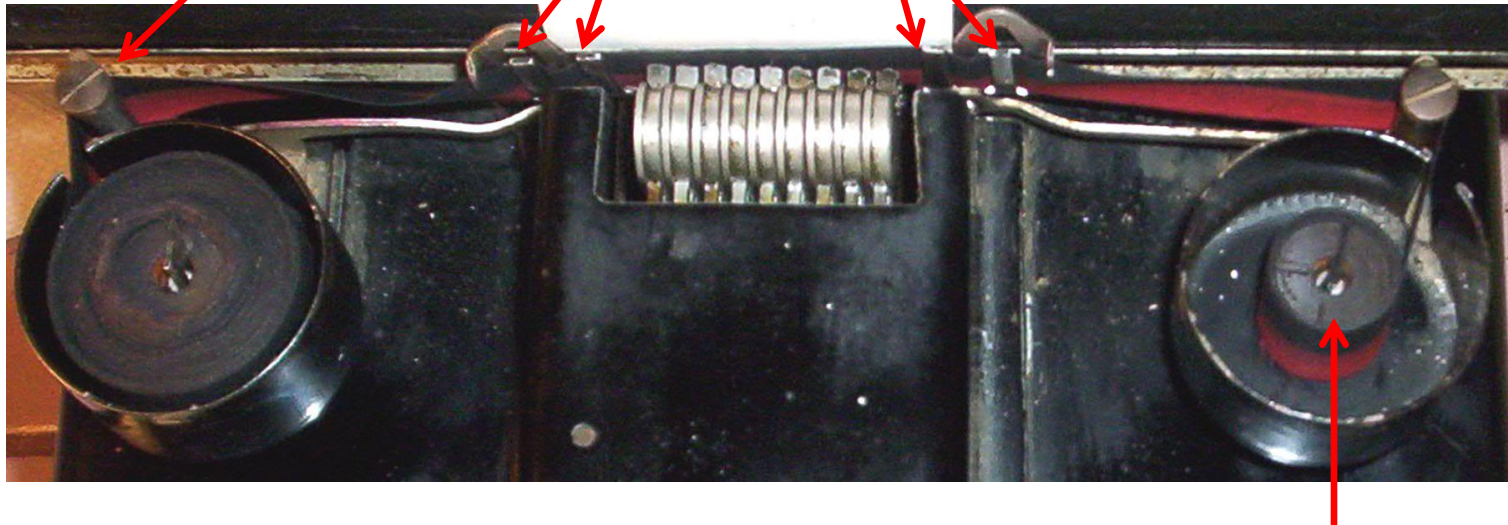
1. **Correction key**, used to correct errors, see page 10.
2. **Repeat Key**. (To repeat an item any desired number of times, hold this key down and pull the lever.)
3. **Total key**, or taking totals and sub-totals.
4. **Eliminating key**, for printing items without adding.
5. **Designating key**, to designate desired items, also used in connection with eliminating key, to designate items eliminated. On machines made prior to 1909, the eliminating and designating keys are one.
6. **Non-print lever**, used in connection with the non-print dial, to prevent printing any desired item.
7. **Non-print dial**, used in connection with non-print lever to prevent printing. When the "2" is uppermost on the dial, the non-print lever if depressed will prevent printing of any figures that may have been listed in the two left hand printing sectors. If the "4" is uppermost, it will prevent printing on any of the four left hand sectors, and if the "9" is uppermost, it will prevent printing in all nine of the sectors. Items thus prevented from printing will be added in the machine just the same as if they were printed in the usual way.
- 8-8. **Paper release levers**, used to release and straighten paper. To release paper, pull No. 8 forward.
- 9-9. **Column space levers**, for spacing carriage to right or left for new column. To space carriage for new column, pull No. 9 forward and move carriage to desired column. This lever No. 9 if pushed backward acts as a lock and will hold the carriage in any desired position regardless of the fixed spaces.
10. **Ribbon guides** through which ribbon must pass.
11. **Non-space lever**. To prevent line spacing, push backward.

From Original Manual:

12. **Platen knob** for turning platen by hand.
13. **Ribbon cups** for holding ribbon.
14. **Operating lever.**
15. **Door** for covering opening over the splitting mechanism. Full instructions for splitting will be found on page 34.
16. **Ribbon.** To put on new ribbon, first see that the machine is clear; then **push down** total key and **remove** finger as if for taking a sub-total; pull the operating lever forward slowly until total key **releases** and goes back to normal position, and leave lever in this position. This will bring the **ribbon guides** above the printing sectors so that the ribbon may be easily removed. Remove the covers from the ribbon cups and take old ribbon out, using care to see that the new ribbon is put back in exactly the same manner as the old one. Before removing the ribbon from the guides, be careful to note how it is **threaded** between the **fingers** of the **guides** and thread the new ribbon in the **same manner.** A little care in taking off the old ribbon will enable the operator to put on a new ribbon without trouble or confusion.
17. **Paper roll.** In putting on new paper roll it is important to see that paper feeds from the bottom of roll.
18. **Keyboard clear signal.** Always shows whether any figures have been introduced into the machine after the last operation of the lever.

Ribbon goes
between roller
and tine

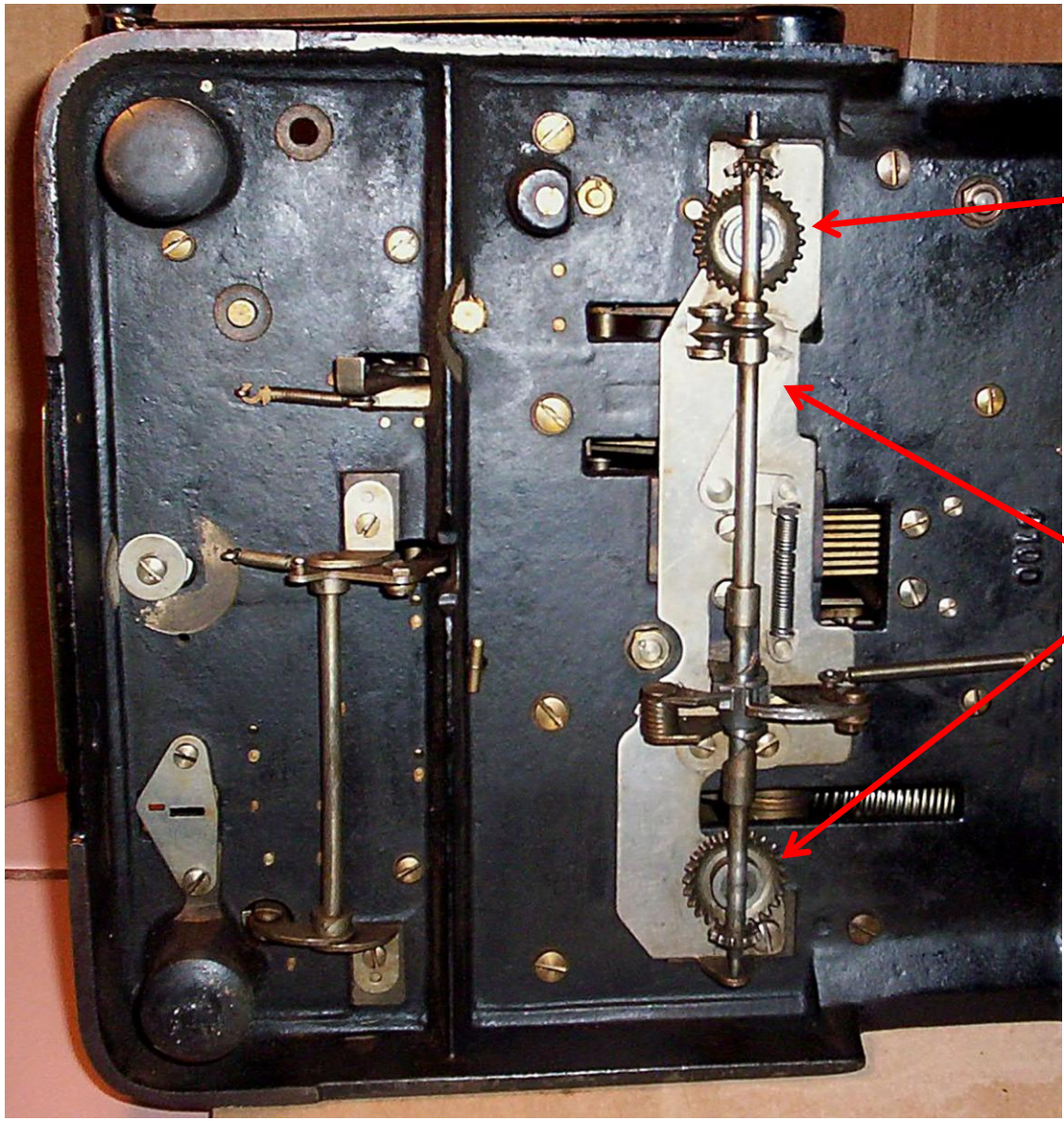
Ribbon goes
behind twin tines



Press Total Button and pull the handle slightly forward until the ribbon tines rise up. This makes it easier to thread the ribbon.

Metal clip on end of ribbon slides fully into wooden spool and into slot of turning shaft.

When ribbon does not auto-reverse, turn machine on side, push away latch, and slide shaft to engage gears on opposite end (See next slide)



Ribbon rotation Gear

- If ribbon does not auto-reverse:
- push away latch
 - slide shaft to engage gears on opposite end
 - return latch to locked position

From Original Manual:

To Clear Machine

Pull the operating lever forward to the **end** of the stroke and permit it to return to normal position; then depress the total key and **hold it down** while the operating lever is moved forward again and **until it returns to normal position**. This operation will cause to be printed the total amount that is in the machine and at the same time **lock the keyboard** so that no figures can be depressed. Pull the operating lever forward again, this time **without** holding down the total key, and a red cipher, which is the clearing sign, will print in the units column, which indicates that the machine is **clear**.

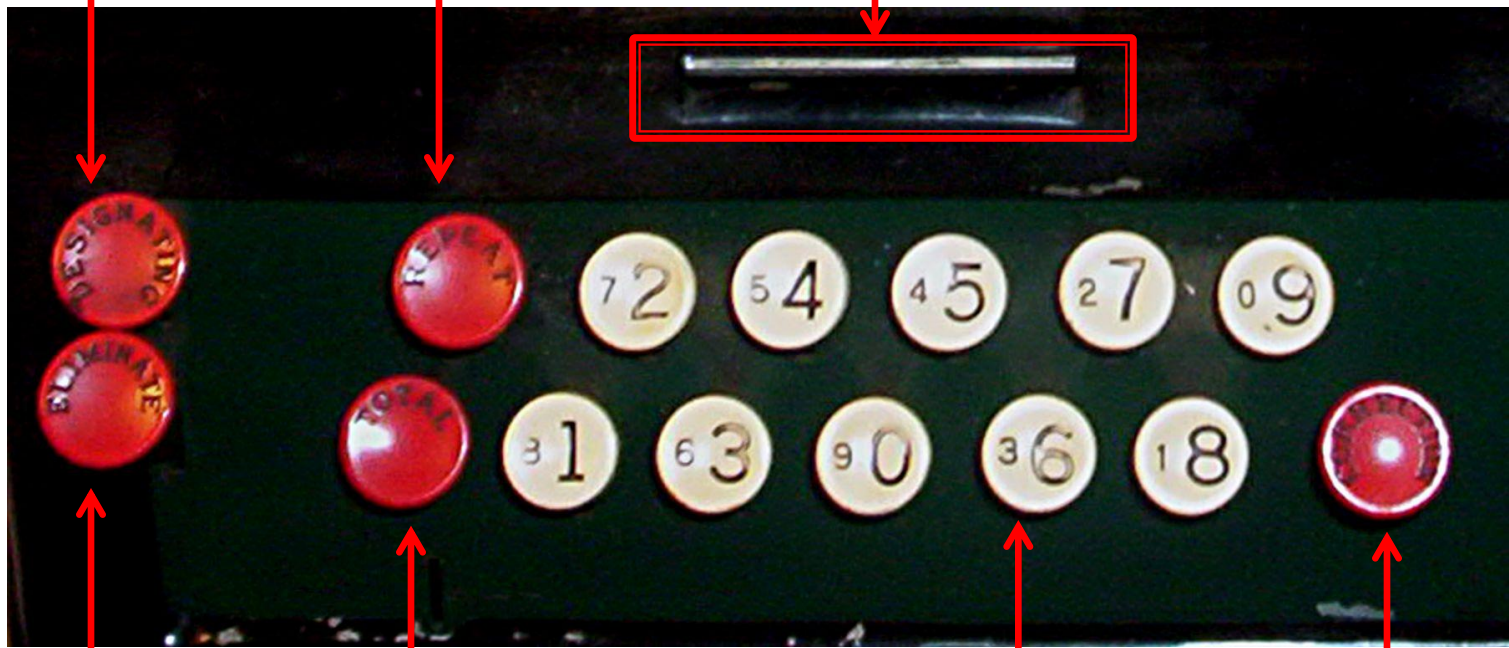
Correcting Errors

If by mistake a wrong key has been depressed, thus setting up an erroneous amount and the error is noted **before pulling the lever**, the entire amount so set up can be taken out by depressing the **correction** key, using care to **push it all the way down**. This operation clears out of the keyboard all the figures of the item in which the error occurred, so that the correct amount can be set up in the usual way.

Prints an 'E'
on paper

Before pulling
handle, hold
down to repeat
current number

Digit tally window is merely
a painted stick with dots
that slides back and forth!



Ignore - Subtraction
is complicated to do

Pull lever to clear,
Press Total,
Pull lever to total,
Pull lever to clear

Use BIG digits for
typing in a number.
Lightly touch, digit
occurs upon release

Press correct ALL the
way down the clear an
unwanted number