

# Livermore Heritage Guild's 1923 Sundstrand Adding Machine



Rev. E - 4/24/2014  
Harry Briley

## Docent Operation

- Adjust feet to lift oil pan off the tabletop (scratch source)
- If tipped over, some oil drops may leak (a stain source)

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

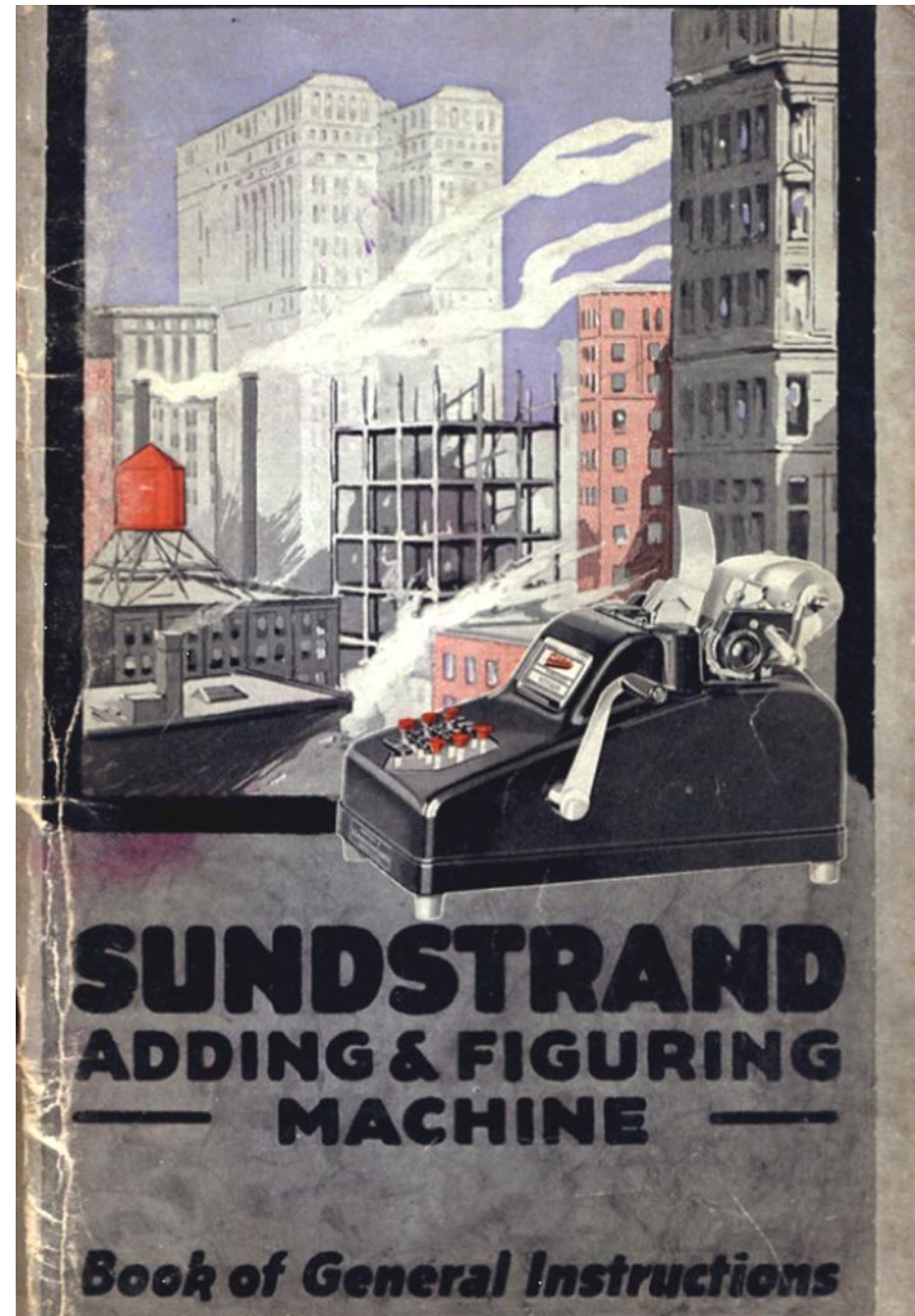
In 1923, the option to take a calculator out on the shop floor or to a loading dock **without electricity** was a true marvel. It is portable, but its weight insured that it stayed in the office.

Smokestacks and factories in the urban downtown in 1920's was a sign of PROGRESS and not of city decay or pollution. →



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

Sundstrand **invented** the 9 digit over zero keypad. This novel "stripped down" number pad became our standard ever since.







This indicator tells how many digits you entered. Users quickly became one-handed “touch-typists” making this indicator useless.

This machine requires two decimal places for dollars and cents.

- **Type 25** for 25 cents
- **Type 2500** for 25 dollars

First, RESET the accumulator (This gives a **Grand Total** since the last reset)

- **Hold down the TOTAL button** and do this double action
- Pull lever.
  - It prints a blank space.
- pull lever (**second time**)
  - It prints a red square. [If this fails, try again a bit quicker.]



### Data Entry:

- **Enter a number**, pull lever
  - It prints in Black Ink
- **Enter a number, press subtract (S'TRACT) button**, pull lever
  - It prints in Black Ink with a negative sign

### Bad Data (Two methods to Fix)

- **Enter a wrong number (gasp!), hold down "NON ADD" button**, pull lever
  - It prints in Black Ink with a square mark.
  - This number will be excluded from total
- **Enter a wrong number (gasp!), flick the lever forward slightly**
  - It resets the indicator

The **REPEAT button** is a latch

- Press down to set
- Flick towards you to release

## The Sub-Total and Total steps are double-pulls.

- The **Grand Total** is the same as resetting the accumulator.



- To get a **Subtotal** – Do this double action
- **Pull lever**
  - It prints a blank space.
- **Pull lever**
  - It prints CURRENT subtotal in red ink

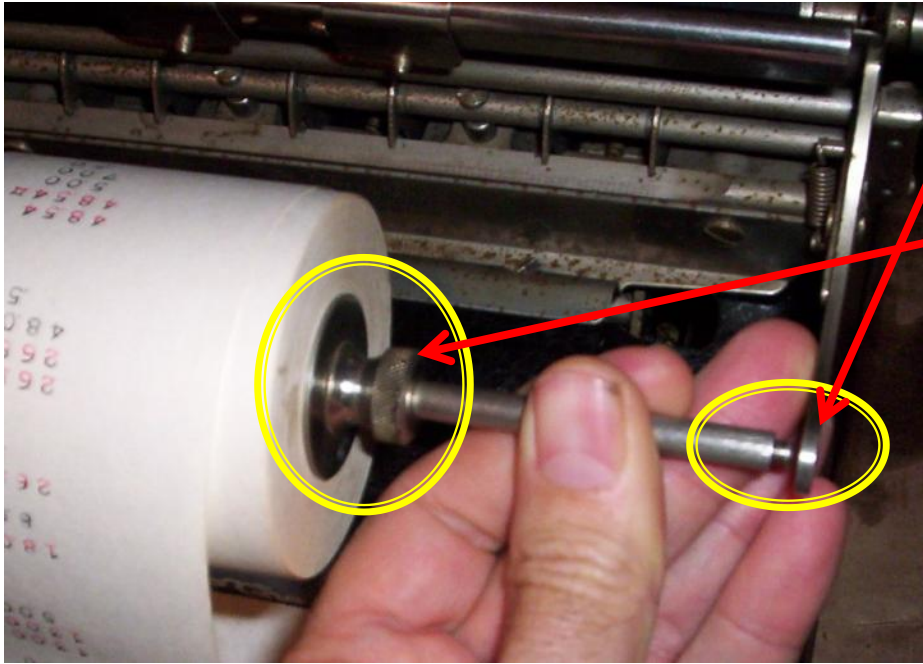


If it does not total, simply try again, but a bit quicker.

### TRY THIS! Let the machine guess your Birth Year!

- Enter today's four digit year (e.g. 2013), pull lever
- Enter your age, press subtract button, pull lever
- Hold down the **Grand Total** Button
- Do the Total double-action

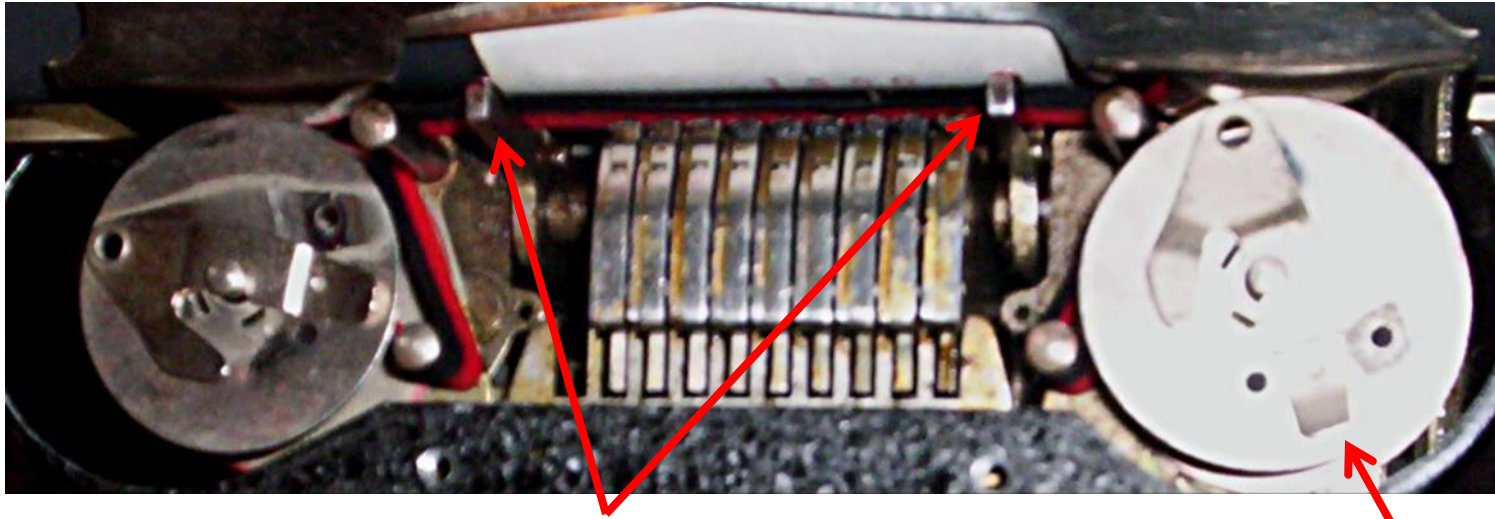
# Replacing Paper Spool



- Remove the paper spool rod (held by **spring-tension**).
- The paper spool has two **friction-slider** end-caps.
- Pull out one end cap, replace paper spool, replace end-cap.
- Adjust end caps to center the paper spool.
- Feed spool paper through adjustable paper guides and up behind tear-off guide.
- Set “Paper Feed” to “1”



# Replacing Half-Black/Half-Red Ribbon



- Install ribbon **within** lifter tines, NOT in front.
- Feed the ribbon around the pins one spool at a time.
- The pins activate the AUTO-REVERSE feature.
- Push/Slide Spool latch to center hole

Latch spool to spindle

- Remove Spool Dust Cover
- Unlatch and remove spools
- Wind on fresh ribbon
- Re-install ribbon as above
- Latch spools to spindles
- Reattach spool dust cover

