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Linux and Player Pianos (Pianolas): A Correlation

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Warning!

To make a point, broad generalities are about to be spoken......

Nit-picking will not be tolerated!

Overview of Presentation

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- The History of Pianolas
- The correlation
- Questions

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Once Upon a Time

There was no music that you did not have to produce yourself:

- no MTV!!
- no televisions
- no radios
- no stereo
- no hi-fi
- no record players
- no tape recorders
- not even 8-tracks (what are 8-tracks?)

- well, there were music boxes.....but.....

Then in 1880.....

The player piano was invented:

- used rolls to play music
  - 56 holes in paper
  - 56 notes it could play
- used footpower to produce vacuum (before electricity)
  - powered take-up reel
  - powered piano hammers

Piano not instant success...

- 88 notes on piano
- 56 holes in paper
- piano could not play all of notes

Piano failed to meet "minimum requirements for functionality."

In 1890 a Major Breakthrough...

- 88 note standard piano was created
  - 88 holes
  - sustain hole
  - bellows guided paper over read head
- Between 1890 and 1929 (when depression cut off piano making)...

2.5 Million Player Pianos Generated in US alone.

- Huge number considering
  - population of US
  - high cost of player piano
- Huge demand generated duplication
  - 88 note became "standard"
    - other vendors made rolls
    - other vendors made mechanisms
    - improvements to both rolls and mechanisms

but 88 note standard was maintained...

Front Top of Piano

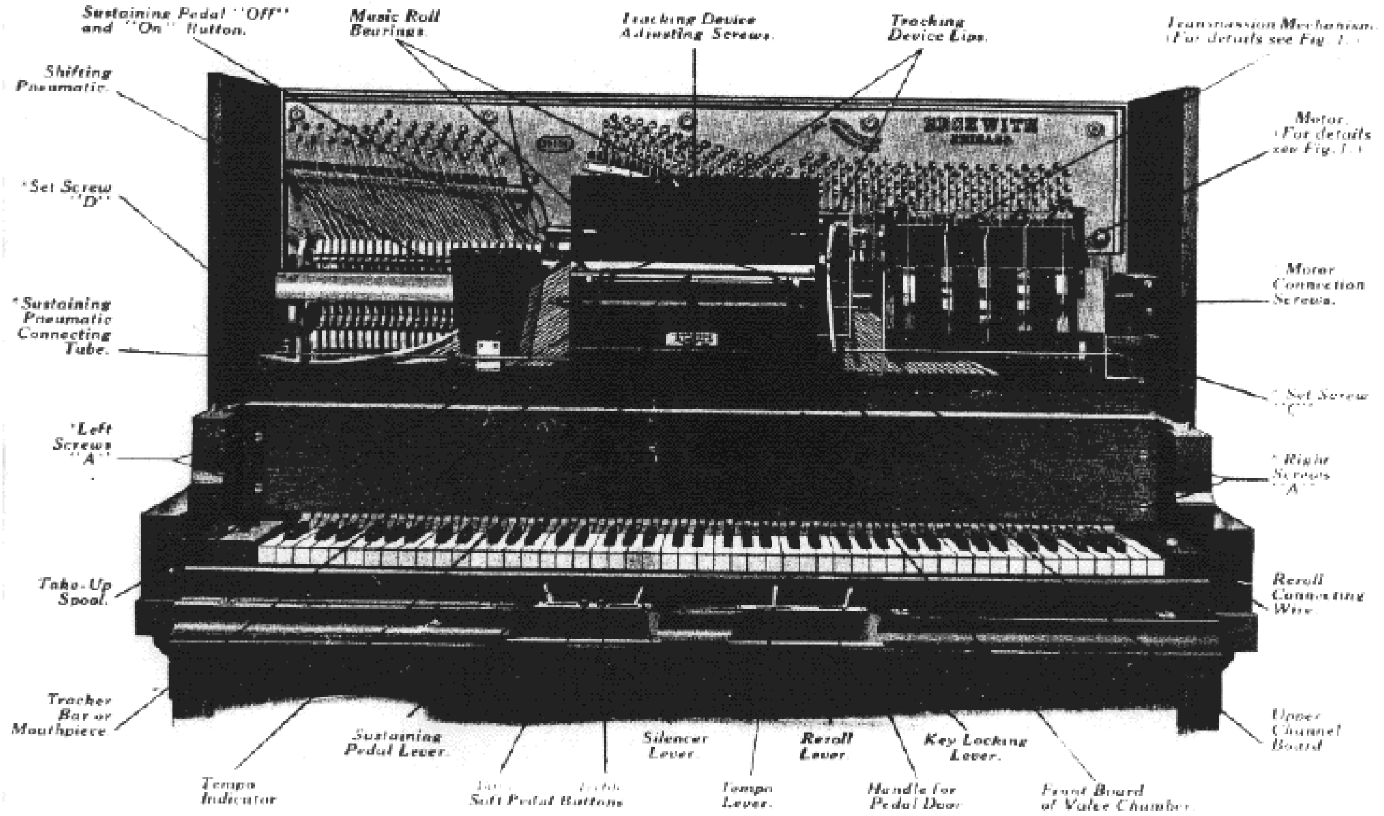

Figure 3. Top Player Action.

Front Bottom of Piano

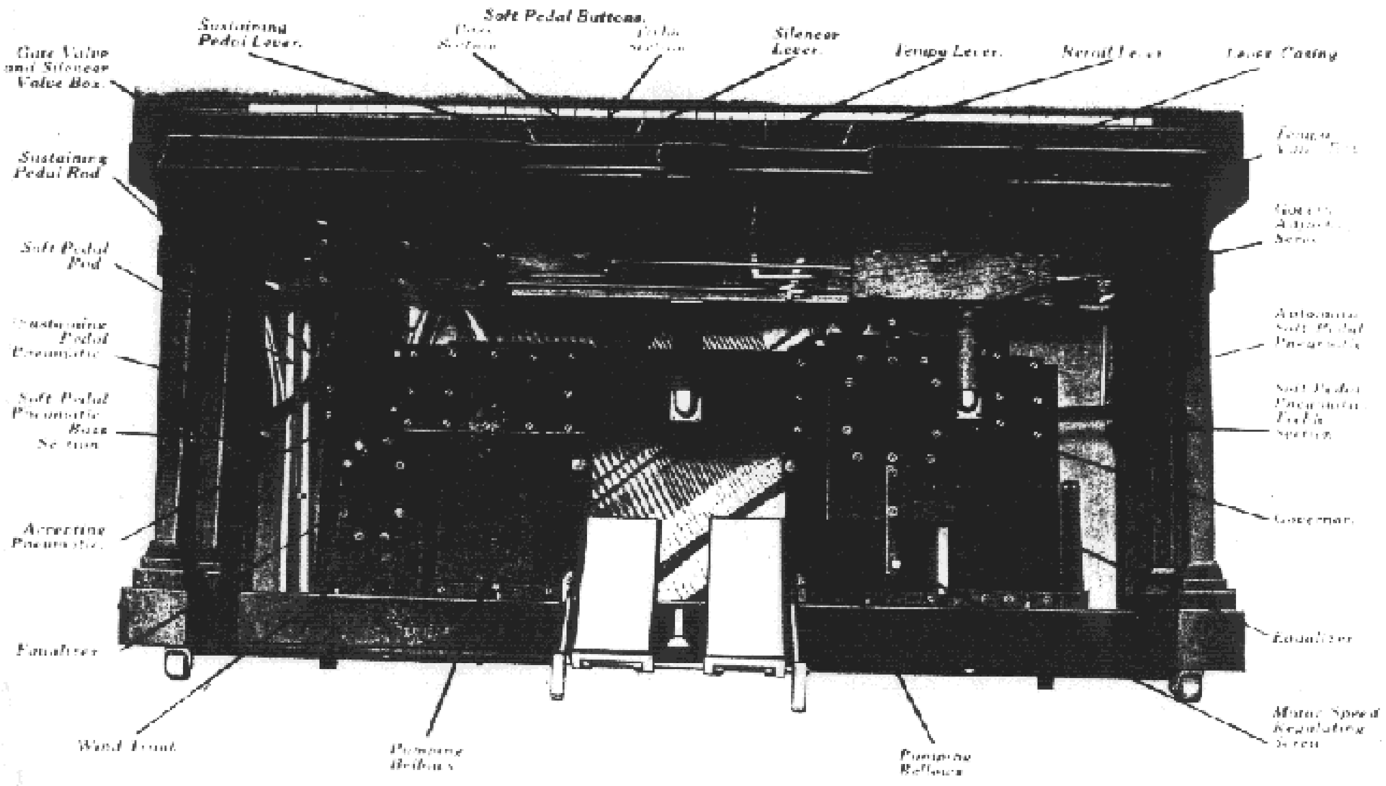

Figure 2. Bottom Player Action.

Read Head

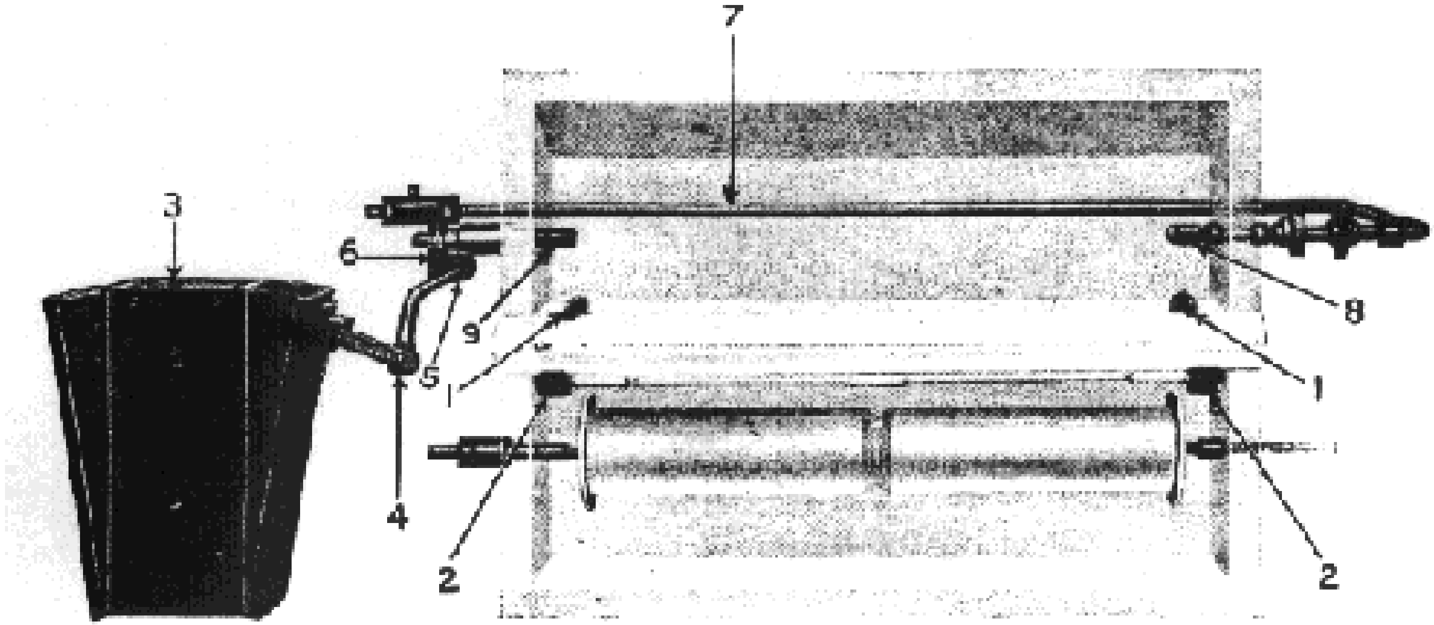

Figure 6.

Device Driver

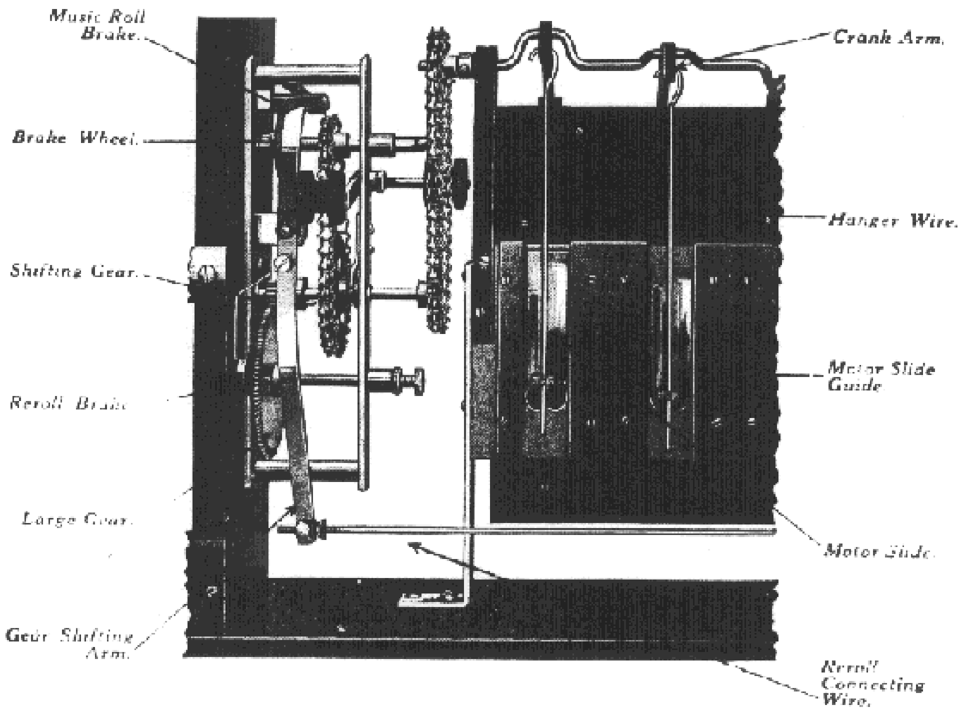

Figure 1.

Transmission Mechanism and Section of Motor.

Sears, Roebuck and Co., Chicago *Eleven*

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Bus Lines and Controllers

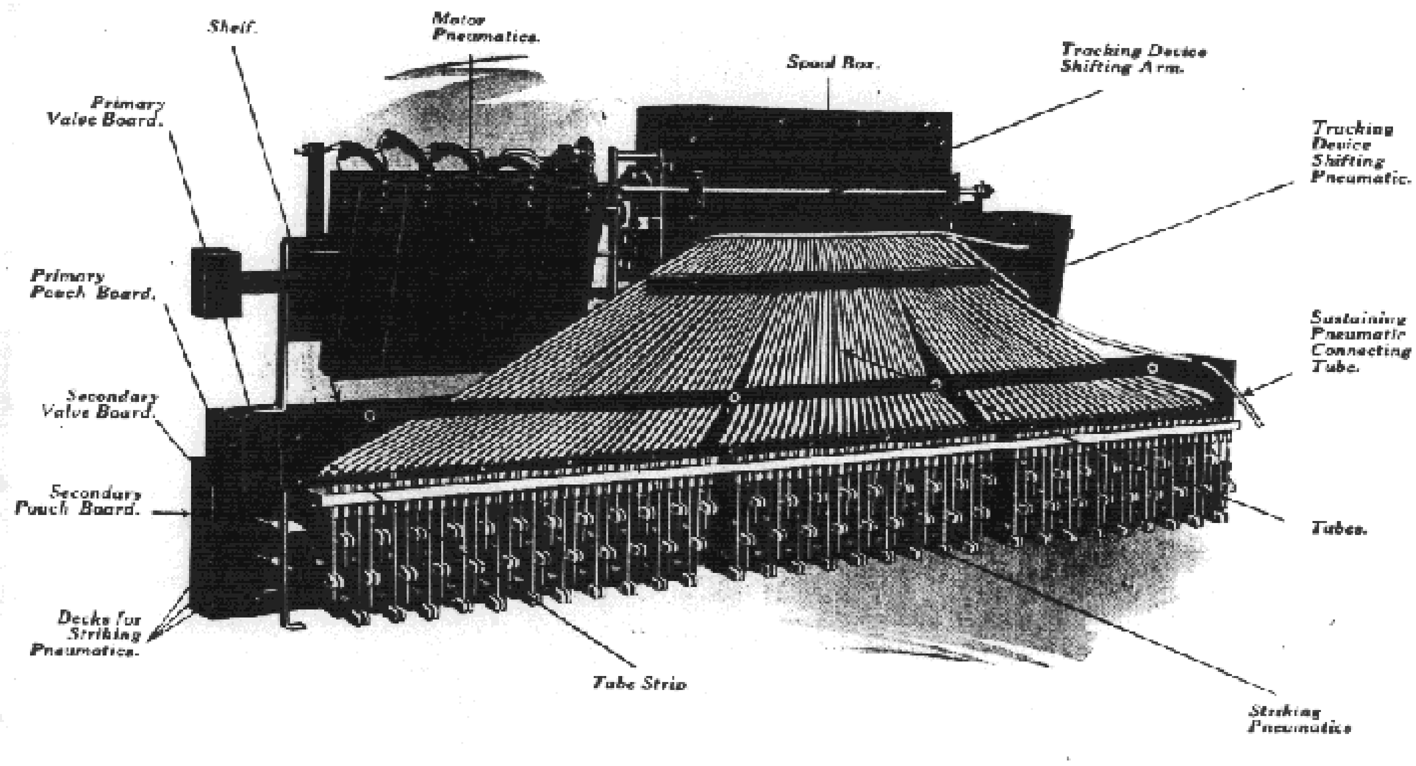


Figure 4. Back View of Top Player Action.

Accessory Catalog

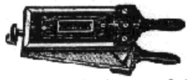
Silent Note Pumps for Player Pianos

It is important to keep the mouthpiece of a player piano free from dirt and paper dust which sometimes accumulate. Many perfect rolls are pronounced defective just because of such obstructions. The pumps listed operate on the vacuum system and are guaranteed to remove accumulations of dirt and dust in mouthpiece tubes.

They are invaluable to piano tuners, as much time would be saved in trying to locate the cause of a defective note if mouthpiece tubes were thoroughly gone over with one of these vacuum pumps.

No. 12Y211 Black finish, rubberized cloth bellows. Aluminum mouthpiece. A very good pump at a low price. Frame, 7½ inches long and 2½ inches wide. Shipping weight, 13 ounces.

Price. **75c**



No. 12Y213 Mahogany finish, rubberized cloth bellows, metal bound edges, aluminum mouthpiece. Frame, 9½ inches long, 3¾ inches wide and more powerful than No. 12Y211. Shipping weight, 1½ pounds.

Price. **$1.75**

Official Motor Graphite

Flake graphite, ground fine. Suitable for lubricating motor slides of player pianos. Use dry or mixed with grease or oil. Comes in three sizes.

Catalog No.	Size Can, Abt., Lbs.	Shpg. Wt., Abt., Lbs.	Price, per Can
28Y11073	½	1½	$0.30
28Y11074	1	2	.55
28Y11075	5	7¼	2.60

Lightning Furniture and Piano Polish

Especially recommended for polishing pianos and other highly finished furniture and woodwork. It may also be used for polishing automobile bodies.

Lightning Furniture and Piano Polish will not injure the finest finish. Furniture on which this polish is used retains its highly lustrous finish for a long time, and it is not necessary to repolish quite as often as when inferior polishes are used. Apply the polish with a piece of cheesecloth.

No. 30Y2768	½ Pint	1 Pint	1 Quart
Shipping weight, pounds.	1¼	1⅝	3
Price.	**19c**	**30c**	**53c**

SEARS, ROEBUCK AND CO., CHICAGO

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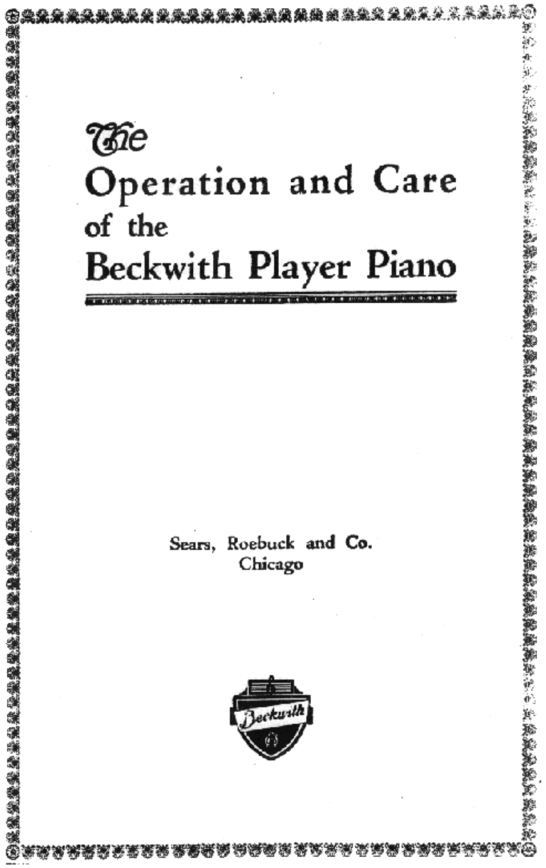
Instruction Manual (Never Opened)


The
Operation and Care
of the
Beckwith Player Piano

Sears, Roebuck and Co.
Chicago

Reproducing Player Pianos

- Some manufacturers thought 88 note could be improved
  - 88 note always hit with same force
  - not the way pianos are played
  - "reproducers" were created
- Reproducers could sound just like artist
  - 50% more holds in paper
  - 50% greater cost of piano
- Four vendors, four "standards"
- Reproducers were "proprietary"

Public Rejects Reproducers

- Not enough selection in rolls
- Too much cost for perceived value
- Hard to find service, parts for them

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Depression Hits (1930)

- Most piano firms go out of business
- Player pianos never recover market
  - radio
  - phonograph
  - TV
- Pianos sit in living rooms, basements
  - rubber tubes rot
  - leather bellows rot
  - mice!

1960s Revival

- Pianos still in homes
  - restoration begins
  - revival in roll business
    - QRS
    - Playwrite
    - Others
  - old songs re-created
  - new songs generated
- Even new player pianos generated (Seneca, Pennsylvania, USA)

But 88-note only

Not enough market for reproducers

- Reproducers too expensive
- too hard to find parts
- too hard to find rolls

So it is with Linux

- Basic functionality at a low price
- Innovation within standards
- Many platforms for applications to run on
- Numbers breeds longevity

Questions?

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