

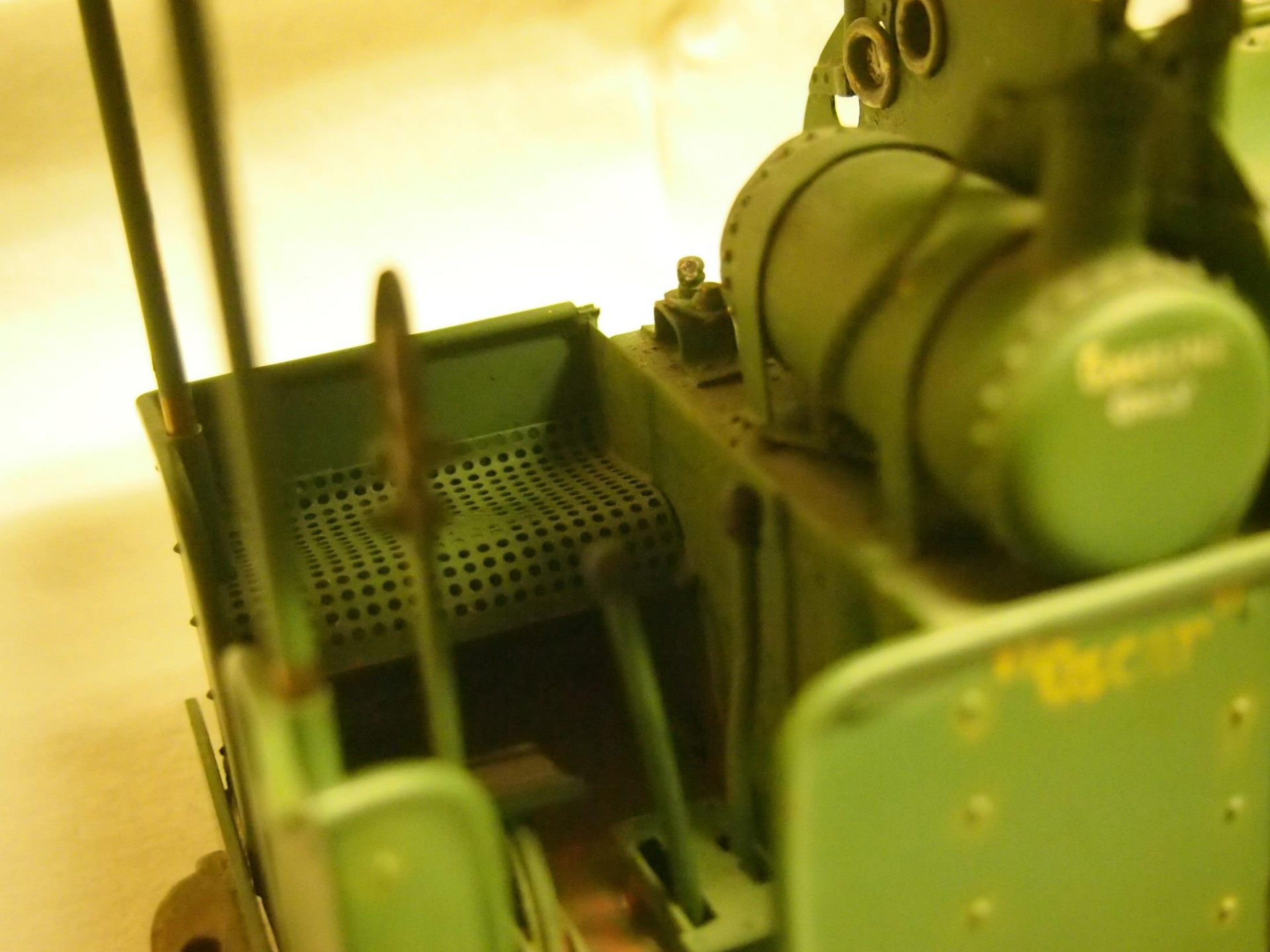
Scale?

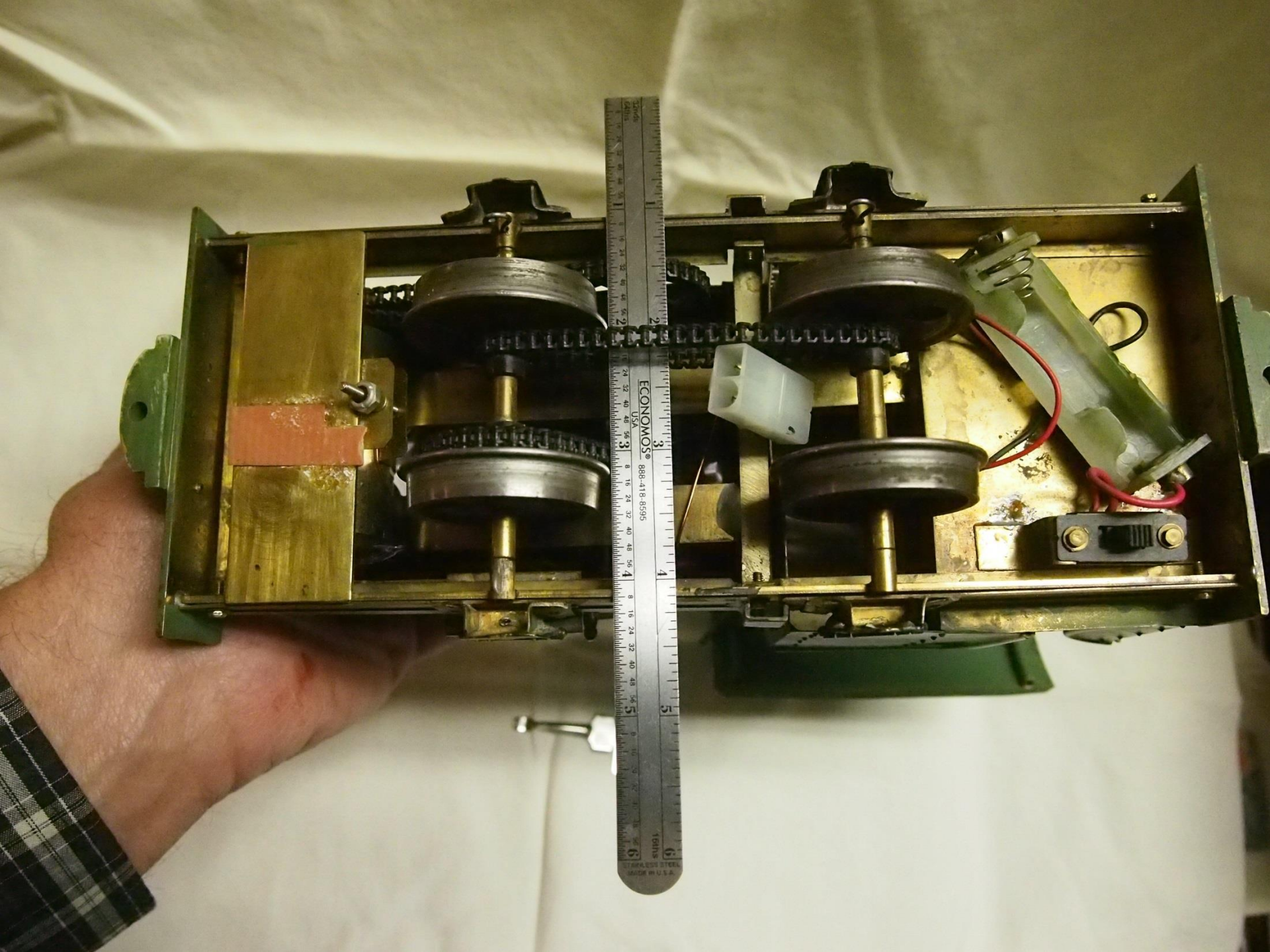
Gauge?

Scale versus Gauge

- Scale is ratio of prototype to model dimensions
- Gauge is the distance between railheads







ECONOMOS® 888-418-8395
6
5
4
3
2
1
0
10 20 30 40 50 60 70 80 90 100
1 2 3 4 5 6
TENTHS
STEEL
MADE IN U.S.A.

The image shows the internal mechanism of a device, likely a scale, housed in a green plastic casing. The mechanism consists of several brass gears of different sizes mounted on shafts. A central horizontal gear is connected to a larger gear above it. To the right, there is a white plastic component with two rectangular openings, possibly a connector or a sensor. A red wire is connected to a small black component with two gold-colored terminals. The entire assembly is mounted on a brass frame. A ruler is placed vertically in the center of the device for scale, showing measurements in inches and tenths of an inch.

Scale \neq Gauge

One can mix equipment and parts from
one scale to another.

The relative gauge changes.

Example: G “Scale”

LGB: 45 mm “Gauge”

(meter gauge at 1:22.5 Scale Ratio)

Use of G “Gauge”

<u>Scale</u>	<u>Gauge</u>	<u>Represents:</u>
1:32	45 mm	Standard gauge for #1 scale
1:29	45 mm	4' 3" gauge
1:24	45 mm	3' 6" gauge
1:22.5	45 mm	meter gauge in G-Scale
1:20.3	45 mm	3' gauge in F-Scale

Scale and Gauge Table

			Version:							November 5, 2019		© M Havens									
Ratio (to 1:)			12	13.7	16	19	20.32	22.5	24	29	32	35	48	64	76.2	87	120	160	220		
Scale Name			F	G	No 1	Armor	O	S	OO	HO	TT	N	Z								
1 scale ft =			1 in	7/8 in	3/4 in	16 mm	15 mm	13.5 mm	1/2 in	10.5 mm	3/8 in	1/4 in	3/16 in	4 mm	3.5 mm						
Gauge (in)																					
56.50	Std Gauge	4.708	4.124	3.531	2.974	2.781	2.511	2.354	1.948	1.766	1.177	0.883	0.741	0.649	0.471	0.353	0.257				
36.00	3 ft Gauge	3.000	2.628	2.250	1.895	1.772	1.600	1.500	1.241	1.125	0.750	0.563	0.472	0.414	0.300	0.225	0.164				
24.00	2 ft Gauge	2.000	1.752	1.500	1.263	1.181	1.067	1.000	0.828	0.750	0.500	0.375	0.315	0.276	0.200	0.150	0.109				
18.00	18 in Gage	1.500	1.314	1.125	0.947	0.886	0.800	0.750	0.621	0.563	0.375	0.281	0.236	0.207	0.150	0.113	0.082				
15.00	15 in Gauge	1.250	1.095	0.938	0.789	0.738	0.667	0.625	0.517	0.469	0.313	0.234	0.197	0.172	0.125	0.094	0.068				
Gauge (inches)	Gauge (mm)	Gauge Name																			
4.750	121.00	1" std																			
3.500	89.00	3/4" std																			
2.781	70.69	3 ft ga																			
1.772	45.00	G Gauge																			
1.766	44.85	No 1																			
1.311	32.00	7/8 n18																			
1.250	31.75	O Gauge	15" ga																		
1.177	28.90	Proto 48																			
1.125	28.60	2 ft ga																			
0.883	22.43	S Gauge																			
0.750	19.05	O 3 ft Gauge	15" ga	18" ga																	
0.650	16.50	HO, OO, On30																			
0.563	14.30	Sn3																			
0.500	12.70	On2																			
0.472	12.00	HO meter																			
0.470	11.94	TT Gauge																			
0.413	10.50	HOn3																			
0.353	8.97	N, HOn30																			
0.276	7.00	HOn2																			
0.256	6.50	Nn3																			
0.177	4.50	Nn2																			
0.256	6.50	Z																			

Disneyland Vertical Perspective Main Street Building, etc.

		<u>Ratio</u>

_____	3 rd Floor = 1/2	50 %
_____	2 nd Floor = 5/8	62 %
_____	1 st Floor = full size	100%

Scales in Perspective

Vers
ion: November 6, 2019

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<u>Scale Name</u>	<u>Scale (dimms)</u>	<u>Scale Ratio</u>	<u>Relative Ratio</u>	F 20.32	G 22.5	24	Armour 35	O 48	S 64	HO 87	N 160	Z 220
F	15 mm	20.32	100%	111%	118%	172%	236%	315%	428%	787%	1083%	
G	13.5 mm	22.5	90%	100%	107%	156%	213%	284%	387%	711%	978%	
	1/2 inch	24	94%	94%	100%	146%	200%	267%	363%	667%	917%	
	10.5 mm	29	83%	78%	83%	121%	166%	221%	300%	552%	759%	
No 1	No 1	32	91%	70%	75%	109%	150%	200%	272%	500%	688%	
Armour		35	91%	64%	69%	100%	137%	183%	249%	457%	629%	
O	1/4 inch	48	73%	47%	50%	73%	100%	133%	181%	333%	458%	
S	3/16 inch	64	75%	35%	38%	55%	75%	100%	136%	250%	344%	
HO	3.5 mm	87	88%	26%	28%	40%	55%	74%	100%	184%	253%	
N		160	75%	14%	15%	22%	30%	40%	54%	100%	138%	
Z		220	73%	10%	11%	16%	22%	29%	40%	73%	100%	



Prototype Rubber Gauge Track

End of Track