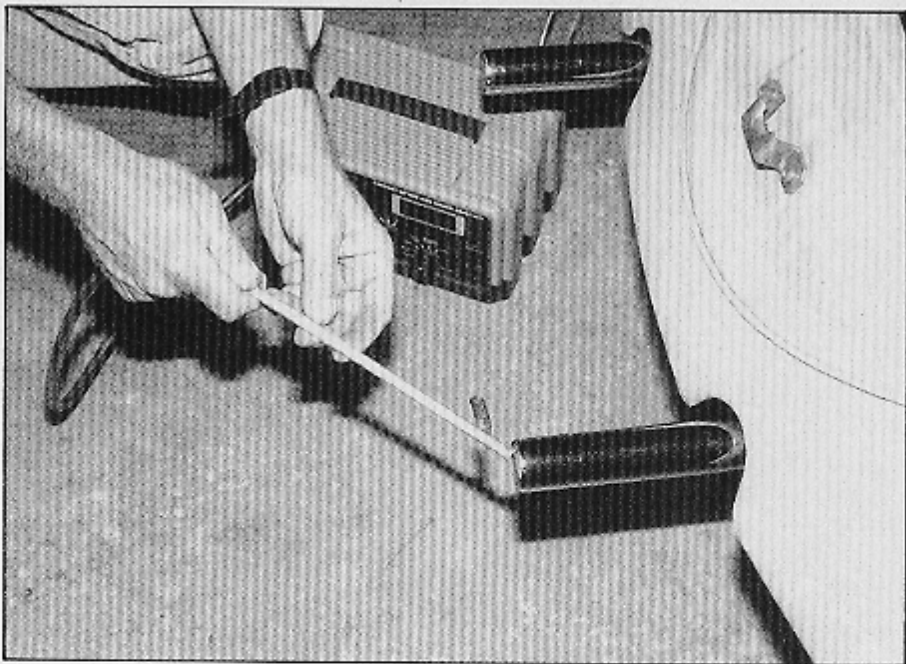


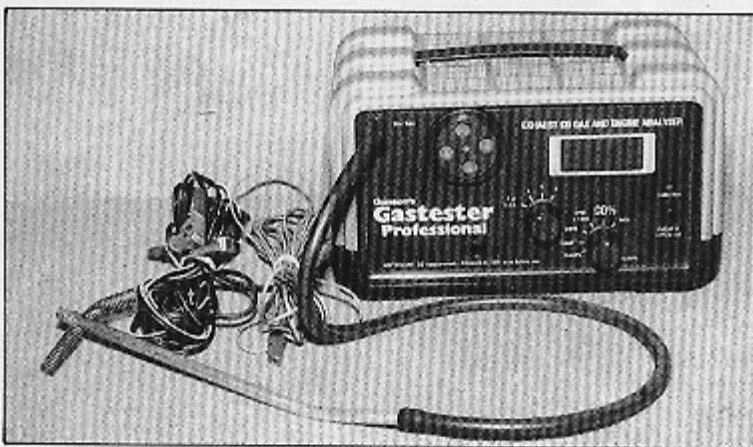
dwell meter and a volt meter to assist in complete tune-ups.

When we received our Gastester Professional, we went to work testing our own 1966 'vert with a bone stock 1971 1600cc engine. Right off the bat we knew we had some work ahead of us. The car idled terribly, had a major flat spot and it didn't take an electronic sniffer to tell us that it wouldn't pass the smog test for a '57 Caddy! We connected the two alligator clips to their respective positive and negative connections on the engine, and waited the required eight minutes for the unit to warm up and become acclimated to the outside air. During the warm-up period it is necessary to calibrate the unit to 2% CO reading, which just happens to be the natural CO content of our air (maybe not in L.A.!). After inserting the probe into our exhaust we immediately discovered two things, our CO was way high indicating a rich mixture at idle, and the readings between the two exhaust tips were radically different. After some investigating we discovered a dead number four cylinder at idle, caused by a leaking intake manifold.

*Continued on page 105*



ABOVE, just like an official testing station, the Gastester uses a "sniffer" that is placed in a vehicle's exhaust pipe. The sniffer has two springs to hold it in place, but with the VW's small tail pipes we needed to remove one. BELOW, these charts show the correlation between CO levels, air/fuel ratios, CO<sub>2</sub> levels and "Stoichiometry."



% CO	A/F	%CO	A/F
0.1	14.71	5.1	12.58
0.2	14.53	5.2	12.53
0.3	14.41	5.3	12.50
0.4	14.33	5.4	12.45
0.5	14.27	5.5	12.42
0.6	14.22	5.6	12.39
0.7	14.22	5.7	12.36
0.8	14.16	5.8	12.32
0.9	14.14	5.9	12.29
1.0	14.10	6.0	12.24
1.1	14.08	6.1	12.21
1.2	14.03	6.2	12.17
1.3	14.00	6.3	12.12
1.4	13.97	6.4	12.09
1.5	13.93	6.5	12.06
1.6	13.89	6.6	12.02
1.7	13.85	6.7	11.99
1.8	13.81	6.8	11.95
1.9	13.79	6.9	11.92
2.0	13.76	7.0	11.88
2.1	13.72	7.1	11.85
2.2	13.68	7.2	11.81
2.3	13.62	7.3	11.78
2.4	13.58	7.4	11.75
2.5	13.55	7.5	11.71
2.6	13.53	7.6	11.68
2.7	13.48	7.7	11.64
2.8	13.44	7.8	11.68
2.9	13.40	7.9	11.60
3.0	13.37	8.0	11.53
3.1	13.33	8.1	11.49
3.2	13.30	8.2	11.45
3.3	13.26	8.3	11.42
3.4	13.23	8.4	11.39
3.5	13.19	8.5	11.35
3.6	13.14	8.6	11.31
3.7	13.11	8.7	11.27
3.8	13.07	8.8	11.24
3.9	13.02	8.9	11.20
4.0	12.99	9.0	11.15
4.1	12.95	9.1	11.11
4.2	12.92	9.2	11.07
4.3	12.89	9.3	11.04
4.4	12.85	9.4	11.00
4.5	12.82	9.5	10.96
4.6	12.79	9.6	10.93
4.7	12.74	9.7	10.89
4.8	12.69	9.8	10.85
4.9	12.66	9.9	10.81
5.0	12.63	10.0	10.78

