

Sparks-Withington
Company's
**SPARTON
HORNS**



Last month we looked at the Klaxon Horn, the various models and repair and testing information. This month we will look at the other major electric horn manufacturer of the period: the Sparton Horn.

The name 'Sparton' is a part acronym/part contraction for the Sparks-Withington Company. In 1900 Philip and Winthrop Withington of Jackson, MI formed a company to produce steel parts, primarily for agriculture. A few years later, William Sparks joined the Withingtons, and the company name was changed to the Sparks-Withington Company. Added to the company's products were steel automotive stampings like hubcaps and brake drums. Then automotive fan cooling assemblies were added, and became a major segment of the company's production. By 1917 more than a quarter-million fan assemblies were being produced, making that part of the business the primary product. During this time the company began to use the 'Sparton' name. In 1911, along with the fan assemblies, the Sparton Company introduced the first all-electric horn. Hudson adopted the horns as standard equipment, replacing the bulb-squeeze horn. By the early 1920s, the Sparton horns were on 42 makes of automobiles.

During the mid-1920s, Sparks-Withington began manufacturing radios, and later phonographs, and still later televisions. In 1956 the company name was changed, and the brand name 'Sparton' became the company's official name.

Like many other companies, as the world and technology changed, the company branched out into more modern products and

entered the 'modern' world of electronics manufacturing circuit boards, military defense technology and telemetric health monitors. In 1996 it divested itself of the automotive-products division, and today operates as Sparton Electronics, Inc.; Sparton of Canada, Ltd.; Sparton Technology, Inc. and the Sparton Engineered Products, Inc.-Flora Group.

We must remember though, when we hear the very-dated, but somehow beloved Aah-oo-gah of an antique car horn, thanks go to Sparton.



Rather than trying to re-invent the wheel, we are republishing excerpts from Ken McNeil's 2009 column on 'The Ooh Gah Horn'. His column includes information on the workings of the horn, the maintenance of the Ooh-Gah (or Aah-oo-gah) horn, and adjustment for sound and volume.



Finally, another facet of the Sparton horn. In addition to the traditional warning signal horns with which we are familiar, for cars, motorcycles, scooters and boats, Sparton produced a complete line of musical horns, ranging from a two-trumpet version up to a four-trumpet version.

Sadly, with all of the available information in our library or on the Internet, we were not able to find a copy of the original instructions for the repair or adjustment of the Sparton Musical Horns. In 2006, *Skinned Knuckles* Contributing Editor Fritz Hennig detailed maintenance of the Sparton horns. We reprint that article below. And we do have lists; list of the 'song' titles that were available from Sparton.

Fritz also described several of the models of the Sparton auto horns. We have edited his column and include the information for you here.

The first configuration has the motor/compressor unit mounted at the rear or inlet

and perpendicular to the two, three or four trumpets (Sparton calls them 'projectors'). The two projector type is called a 'chime' and the two blow at the same time, resulting in a melodious tone that does not startle but "chimes and charms your way through traffic", according to the Sparton sales literature. The three-projector type is called a 'chime bugle' and plays the military bugle call for attack (I think - I was in the Navy so I may be wrong here). I have one of these restored and mounted on a car.

The four projector type is called a 'Repealer' and plays 'how - dry - I - am', so I expect it was sold and popular during the twenties and early thirties when there was a move afoot to repeal the 18th Amendment (Prohibition). Horns of this first configuration were intended to mount either under the hood or externally and carried nickel-plated trim, etc. to give a finished appearance. They are 6-volt horns.

The horns of the second configuration have the projectors clustered around and parallel to the motor/compressor unit. I only have two or three of these, and they are all of the four-trumpet type, and they carry no trim - as though they were intended to be mounted under the hood or otherwise hidden. At least one of these is 12-volt.

All these horns are operated by air pressure, generated by a vane type compressor driven by an electric motor. The air is directed to the various projectors by valves actuated by a little camshaft. The tone is produced by a diaphragm of thin brass mounted at the rear of each projector. I was able to get some spare brass diaphragms, but I have been told that used X-ray film can be successfully substituted. I found the adjustment of the diaphragms to be touchy and critical - the musical note is determined by the length of the projector.

The Sparton Chime: Back in the early 1920s, this was the horn that started it all. "The Horn 'Beautiful' ~ Sounding two marvelous

sharply harmonious notes simultaneously. With the graceful twin bells in polished nickel ~ the true aristocrat of all motorcar signals."

Early versions of the Chime didn't have any screens in the bells to keep the bugs out. And they only had one mounting bracket, which was on the front. The two electrical terminals were on the back. Later Chimes were made so brackets could be fastened to either side, but the terminals weren't moved to the front until later.

Although this family of horns was strictly aftermarket and not made for any specific make or model, many folks still think they were standard features on luxury cars like Cadillac and Packard.

The Chime cost \$19.50 when first introduced, but the price was quickly bumped up to \$22.50. Either price was too costly for the average 1920s driver. The horn was traditionally displayed on the headlight bar between the two front fenders. But it didn't play a tune.

Now, don't confuse this air-driven horn with the Sparton Trumpet, which has but one projector. Although powered by a 'magnetic motor', it does not have an air pump. However, the Trumpet has merit in that it "instantly produces a high pitched, distinctive note that dominates the road". Priced at \$15, it was definitely not a cheapie.

The Bugle: This was the first true Sparton musical horn. It sprouted a third projector, which we will hereinafter refer to as a 'trumpet.' Each trumpet gives off a different tone successively when the horn button is depressed. It proudly belts out the 'Attention!' bugle call.

Early Bugles had two front electrical terminals: the left one was 'hot' and the center one was for the horn button. A third terminal for ground was later adapted, why I don't know, because it wasn't needed. As you shall later see.

The Combination Chime-Bugle: This Sparton musical horn looks identical to the Bugle, but was the most complicated of the series. Sometime over the years, the upper part was made slightly thinner, a distinguishing characteristic when determining age.

This tooter is operated by means of a double push button. The original factory instruction sheet recommends using nothing smaller than 14 (AWG) gauge wire, as there is neither a relay nor fuse in the electrical circuit. These air horns were made in 6- and 8-volt configurations for cars and small trucks, and 12-volts for large trucks.

Three different mounting brackets were available for the early models. The horn could be attached to the headlight bar (cross bar) or under the hood on the engine. However, it should never be mounted near the exhaust manifold.

Later factory-supplied brackets provided for mounting the horn in various locations under the hood: the frame, inner fender panel, or the dash (firewall). Of course, there were always some mechanics who preferred to make their own brackets.

The horn must be mounted so the trumpets are in a horizontal position or pointed downward. Never mount the horn with the trumpets pointed upward. If moisture is trapped in a trumpet ahead of the diaphragm, it will not operate properly, if at all.

When wiring the horn system, use a relay and a 12-20-amp range fuse. Insure that the horn body is grounded. There are three terminals on the horn. As seen from the front, the left terminal is 'hot' and originally was distinguished from the others by having a brass nut. Like other DC electric motors, it doesn't make any difference whether the electrical system is positive or negative ground, as the motor always spins in the same direction. The instructions don't refer to + - polarity because many cars had positive ground.

Two separate push buttons may be used, but since the instructions call for a double push button setup, that's the way the wiring will be described. The double push button has one central ground wire. The wire from the RED push button goes to the center terminal, which is the way the single-function Bugle is wired. The wire from the GREEN push button goes to the right terminal. On all other Sparton musical horns, the right terminal is a redundant ground (the horn is already grounded through the mount bracket). All that does is confuse people.

When the RED button is pushed, the four-note regulation Army bugle call is sounded. Push the GREEN button and you will get a three-tone chime note. The combination horn button is usually mounted on the steering column, but separate buttons can be mounted on the floor so one or the other can be operated by the left foot. Later versions of the Chime-Bugle used a coarser screen in the bells,

The Repealer was made in response to the unpopular National Prohibition Act. The early Music-Aires looked like the Repealer except for the varied lengths of the trumpets. The trumpets, compressor, and motor cover were all painted in a Hammertone texture, with no nickel or chrome bells. The trumpet screens were smaller and set deeper inside the bells. The redundant ground terminal was eliminated, leaving one terminal for 'hot' and one for the horn button.

Later versions were designed with the trumpets surrounding the motor, and should always be installed with the data plate and terminals facing upward, as there is a drain vent on the underside of the motor cover.

This new configuration was necessary to save space as cars became more streamlined. No longer could these horns be mounted on the car's exterior, and space under the hood was becoming more cramped.

The last Music-Aires had diaphragms that could no longer be replaced, as the ends of the diaphragm housings were now crimped on.

Today replica musical horns are available, but not from Sparton. A number of com-

panies manufacture musical horns that play one tune The Dukes of Hazzard's 12-note 'Dixie' is one of the most popular) to electronic versions that play a selection of tunes orchestrated by, what else? A computer. Sorry, virtually all are designed for 12-volt, negative ground systems.

SPARTON MUSICAL HORNS

On the front of the cylinder that covers the mechanism is an oval tag, which occasionally listed the name of the tune, but more often there would just be a number. The list that follows documents which tune was assigned to which number and the number of trumpets the horn should have. There may have been variations to each tune. The illustration of the name tag lists number 167A. Our list does not include the suffix 'A' but the number 167 is for the popular Merry Oldsmobile. See #158, also listed as Merry Oldsmobile.



IDENTIFICATION NUMBER	# OF HORNS	SONG TITLE	IDENTIFICATION NUMBER	# OF HORNS	SONG TITLE
151	4	Repealer (how dry I am)	174	4	Around the Town
152	4	Sweet Adeline	175	4	East Side - West Side
153	3	Bugle.Chime- Bugle	176	4	Summer Time
154	3 or 4	California Here I Come	177	4	Old MacDonald
155	4	New Yorker	178	4	Keep the home fires Burning
156	3	Me & Mamie O'Rourke	179	4	Hail, Hail Gangs all Here
158	4	Merry Oldsmobile	180		Happy Days
159BB	4	Happy Days Are Here Again	181	3	Mountain Water
160	3	Merrily We Roll Along	182	3	Over the fence
161	3	Huntsman	183		Old Cow Hand
162	4	Midshipman	184		Comin' Thru the Rye
163	4	Rock -A- Bye Baby	186	3	Tea for Two
164	4	Bandsman	187		Let's Have Coffee
165	4	Crusader	188		Ice Cream
166	4	Marseillaise (Marshall)	189		The Barrel Roll
167	4	Merry Oldsmobile #2	190		Shave and a Haircut
168	3	The Way We Wash Clothes	194		Happy Highways
169 or			195	4	Old Ange Sine
170	2	Pepsi-Cola	196		Good Morning To You
171	3	Highlander	197	4	God Bless America
172	3	Round the Mulberry Bush	198	3	'Music Aire'
			199		The American
173	4	Old Gray Bonnet	none	3	Dance of the Valkyries
			none	4	Beethoven's 5th