

POPULAR SCIENCE

MECHANICS AND HANDICRAFT REG.U.S.PAT.OFF.

MANAGING EDITORS: Fred O. Newman, Volta Torrey. ART EDITOR: Howard C. Jensen. MECHANICS & HANDICRAFT EDITOR: Harry Walton. ASSISTANT MANAGING EDITORS: Hartley E. Howe, Frank Rowsome, Jr.

ASSOCIATE EDITORS: Alden P. Armagnac, Devon ASSOCIATE EDITORS: Alden P. Armagnac, Devon Francis, Robert Gorman, Sheldon Gallager, Herbert Johansen, Martin Mann, John F. Stearns, Robert P.

ART DIRECTOR: Harry Samuels. ART ASSOCIATES: Herbert Anthony, Eric Karminski, Jr., Richard Meyer, Saverio Rada, Frances Cooper (Production).

STAFF PHOTOGRAPHERS: W. W. Morris (Chief), Hubert Luckett.

WESTERN EDITOR: Andrew R. Boone (Los Angeles).

EDITORIAL ASSISTANTS: Mae G. Dyer (Assistant to the Editor), Julia Charnif, Carol Ennis, Charlotte Korch, Georgette Sparks, Ruth Westphal.

PUBLISHER: Godfrey Hammond

CONTENTS FOR APRIL

Science News	Conon	APPER	
Plastic Magnets Do Tricks Freeze as You Please	Cover painting by	APRIL, 1948	111
Freeze Wagnets Do Triel	a 09	Reynold Brown	
Appl as You Please	The state of the state of	Aviation	
Pipple Flavor Square	107	Man	
Freeze as You Please	o Del:109	What's New in Aviation How to Talk to an Airplane	
Heated Bubb Improves	Di Delicacies, 111	How to Toll Aviation	108
Earth Ring Ceiling	ristol Aim 101	alk to an Airel	120
Slapless Trigger Improves Heated Rubber Ceiling Earth Ripper Digs Deep	121		
Stapless Trigger Improves Heated Rubber Ceiling Earth Ripper Digs Deep Chow Gear Improved Machine Probes Your Person Science at Work Picture of the No.	122	New Olds Gives Wider View Power in Sleek Package	PIPA
Probes V.	124	Por Olds Gives IV	1101
- 0180	mol: 195	Dewer in Sleel Wider View	11/4
Belence at W	mailty	Pontiac Cot & Package	117
Picture of the lark	148		
		Gus II Out Your	167
Phase M: Phase M:		Power in Sleek Package. Pontiac Gets "New Look" Gus Untangles a Document of the control of the c	168
Picture of the Month Oil By-Products Battle Bug Phase Microscope "Sees" th How You'll Use the New S Steel Samples Studied Aerial Spans C	S 47	Bump 'Em Out Yourself Gus Untangles a Double Cross Hints from the Model Garage New Scooter Uses A Bearings	170
61 - 41 (60 1)	10	Chevrolet I Model Coross	172
A PIEC CL T. TO	1100	New Scool Improves P. Garage	176
How You'll Use the New S Steel Samples Studied Aerial Spans Canyon Sound Without Fury Rockets Lay Pt.	incones 124	Chevrolet Improves Bearings. Trailer Coupler Is Removable.	178
Sound Without anyon	130	Coupler L. Auto Parts	178
Rockets Leave Fury	136	The tiemovol 1	-20
Aerial Spans Canyon Sound Without Fury Rockets Lay Phone Wires	144	Trailer Coupler Is Removable Inventions I'd Like to Couple Is Removable	220
Aerial Spans Canyon Sound Without Fury Rockets Lay Phone Wires PS Features 10 Ways to Get "41	154	I'd Like to See Them Make New Ideas from the Inventors	
World's Biggest Model K.P. Chores Made F. Rock A. Book A.	150	New Ideas from the Inventors Photography Condensers	
World's to Get "that s		from the Make	- 110
Iron Biggest Mai Extr	a P	Photo: Inventors	1.46
Ways to Get "that Extrument of the Company of the C		Con 1 PILL	
D. Chores M. Save V.		M. M. T.	
Tock-A-By D ade Easy	di Back112	Divies She improve E	
How English Mazor	137	Photo Id on C Enlarger	018
Seconds C. L. Experts Tr.	158	rueas and beiling.	210
Hot Dog Split a Mill: Hand	dle 01 150		
K.P. Chores Made Easy Rock-A-By Razor How English Experts Hand Hot Dogs Hitch a Ride Radiant Heat Packs a Pun This mark in text indicates Trade Nan Treasurer: R. Cat 333 Fourth A Separator, Object 28 Wilspourth A Separator, Obje	are Glass157	Movies Shown on Ceiling Mechanics & Shoperaft Center Finder Works Quickly Squaring Stock	220
Theat Pal Ride.	.,55158	C Shopen	
Inis mark in terri	162	Center Find Up will	
Publish Indicates Trad	ich 167	Tuner Walth Shime	
and Treasurer; by at a	ne	Squaria Measures Duicks Onicks	182
Popular on Ohio 28 Wilson Wilson		Taking Stock Engine Calckly	186
and International Published as at the north	le, New y	Center Finder Works Quickly Squaring Stock with Power Speed	186
a Copyright Co. ond cli	est Office, Steel, N	Tuner Measures Engine Speed Taking Inside Works Quickly Taking Inside Weasurements	100
POPULAR Be sure to countrion	All matter at New York Glan	Popul	192
SCIENCE SIVE both	\$3.50 Pan-Amerived to Officer	the Vice-p	203
Fullished intext indicates Trade Name. 162 Squaring Stock With Shims. 182 Squaring Stock Quickly. 186 Taking Inside With Power Tools. 186 Taking Inside Measurements. 182 Taking Inside With Power Tools. 192 Popular Science Incompanies and the control of the control			
addresses in nonventues, Ganada 879; Erkger. Gov.			

SPARK PLUG

Here's what it is

The many benefits which can be obtained through a wider than standard spark gap setting are well known to the automotive industry. Up to this time the rate of spark gap increase due to electrode erosion has been such that the desired wide setting has not been generally used. Auto-Lite, working with leading car and truck manufacturers, has Ignition Engineered a built-in 10,000 Ohm Resistor which reduces electrode erosion so that Auto-Lite Spark Plugs can now be given this wider gap setting desirable for improved operation and economy.

Here's what it does

PROMOTES SMOOTHER IDLING, because the wider spark gaps help eliminate occasional missing.

REDUCES MISFIRING due to lean spots in carburetion. ASSISTS IN BURNING OF LEANER MIXTURES for improved engine economy at idle and throughout the speed

REDUCES RING AND CYLINDER WEAR when lubrication is washed away by gasoline not burned as a result of occasional misses.

INCREASES ELECTRODE LIFE up to 200% and more. SUPPRESSES SPARK PLUG INTERFERENCE with radio, radio-telephone, radar and television reception.*

Advantages So Significant They Are Expected To Affect The Entire Industry

A complete line of Auto-Lite Resistor Spark Plugs with the built-in Resistor will soon be available for original equipment and replacement on popular makes of cars, trucks and tractors. The regular line of ignition engineered Auto-Lite Spark Plugs, which has won such an enviable reputation for dependability of performance, will continue to be manufactured. Ask your favorite dealer.

THE ELECTRIC AUTO-LITE COMPANY Toronto 1, Ontario Toledo 1, Ohio



BUILT-IN RESISTOR

Auto-Lite Ignition Engineers, working with leading automotive manufacturers, have developed the new Auto-Lite Resistor Spark Plug with this builtin resistor. As a result, improved operation and economy will be possible for the owners of cars, trucks and tractors everywhere.



POPULAR April 1948 · 25c SCIENCE

