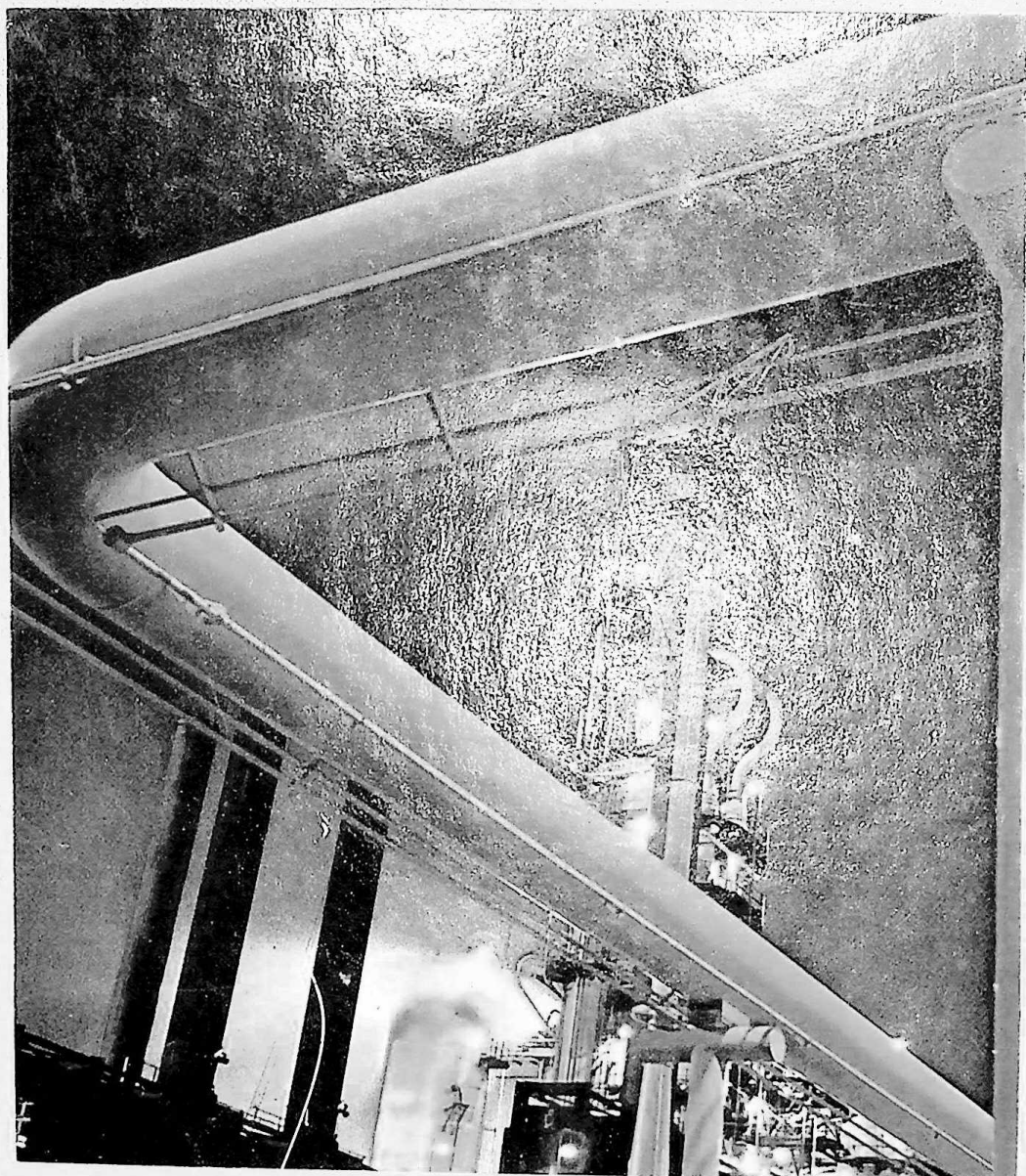


THE BOOK OF
Popular
Science

VOLUME

8



THE BOOK OF POPULAR SCIENCE

Volume 8



REF46

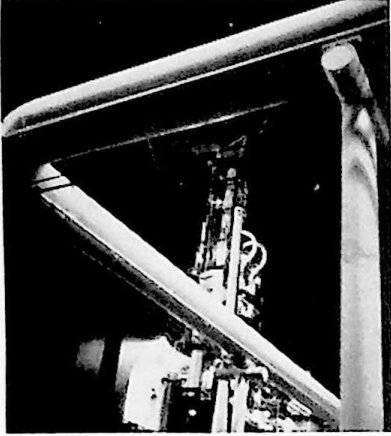
MANGALDAI COLLEGE CENTRAL LIBRARY



Grolier
INCORPORATED

Distributed in the United States by
THE GROLIER SOCIETY INC.

Distributed in Canada by
GROLIER LIMITED



Cover photograph: night view
of the large oil refinery at
Lake Charles, in Louisiana.

Anthony Linck—Cities Service

COPYRIGHT © 1970 BY



Grolier
INCORPORATED

COPYRIGHT © 1970 BY GROLIER LIMITED

Standard Book Number 7172-1201-7

Library of Congress Catalog Card Number: 78-88108

Copyright © 1970, 1969, 1968, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960,
1959, 1958, 1957, 1956, 1955, 1954, 1953, 1952, 1951, 1950, 1947,
1946, 1945, 1943, 1941, 1939 by GROLIER INCORPORATED

Copyright © 1931, 1930, 1929, 1928, 1926, 1924 by THE GROLIER SOCIETY

Copyright © in Canada 1970, 1969, 1968 by GROLIER LIMITED; 1967, 1966, 1965,
1964, 1963, 1962, 1961, 1960, 1959, 1958, 1957, 1956, 1955, 1954,
1953, 1952, 1951, 1950 by GROLIER OF CANADA LIMITED

No part of THE BOOK OF POPULAR SCIENCE may be repro-
duced without special permission in writing from the publishers

VIII

PRINTED
IN
U.S.A.

CONTENTS OF VOLUME VIII

THE UNIVERSE		THE TRUE PARASITES360
THE GALAXIES	47	Organisms within or on Other Organisms
Island Universes in the Heavens		
ASTRONOMICAL OBSERVATORIES	55	MATTER AND ENERGY
An Account of the Astronomer's Headquarters		
THE MILKY WAY	151	PROGRESS IN ACOUSTICS
A Modern Interpretation of This "Band of Light."		
THE EARTH		38
Some Recent Advances in the Study of Sound		
THE WORK OF RUNNING WATER	9	A BIT OF ELECTRONIC HISTORY
How Streams and Rivers Carve the Land		
GEYSERS AND VOLCANOES	291	84
The Development of the Revolutionary Audion		
WATER IN THE GROUND	321	THE STRANGE WORLD OF "SILENT" SOUND
A Vast Reserve Stored Up in Soil and Rock		
CHANGING SHORELINES	348	103
Ultrasonics, a Powerful Tool for Man		
PLANT LIFE		THE LAND THEORY OF COLOR VISION
SOILLESS AGRICULTURE	34	178
A Revolutionary Mid-Century Development		
DISEASES OF GARDEN PLANTS	369	THE COSMIC RAYS
Methods of Prevention and Eradication		
ANIMAL LIFE		393
High-powered Missiles from Outer Space		
THE DOG FAMILY	132	INDUSTRY
Wolves, Coyotes, Jackals, Foxes and Others		
THE GNAWING ANIMALS	160	IRRIGATION AT WORK
The Rodents, Competitors of Man		
THE WILY WEASEL FAMILY	171	191
How Man Brings Water to His Farm Lands		
THE CATS	202	THE GROWING WORLD OF PLASTICS
Lions, Leopards, Jaguars, Pumas and Lynxes		
THE DEER FAMILY	234	220a
The Story of the Widespread Antlered Herd		
CIVETS, MONGOUSES AND HYENAS	244	EXPLOSIVES
Carnivores of the Old World Tropics		
THE ANTELOPE FAMILY	376	273
What They Are and How They Serve		
MAN		THE STORY OF DAMS
A BABY IS BORN	19	305
Structures That Hold Back, Store or Divert Water		
GROWTH, DEVELOPMENT AND DECLINE	90	GLASS HOUSES
A Survey of Human Life		
THE RACES OF MANKIND	213	388
New Windows on the World		
HEREDITY IN MAN	333	TRANSPORTATION
How Successive Generations Are Molded		
HEALTH		GUIDANCE IN SPACE
ON GROWING OLD	78	125
Controlling Missiles and Space Vehicles		
THE CANCERS	265	SCIENCE THROUGH THE AGES
A Survey of Malignant Growths in Man		
		SCIENCE AND PROGRESS (1815-95) VIII
		251
		Students of the World's Fauna and Flora
		The Bombshell — Evolution
		THE TWENTIETH CENTURY (1895-) I
		400
		The Achievements of the Miracle Decade
		The Road to Modern Alchemy
		PROJECTS AND EXPERIMENTS
		EXPERIMENTS WITH WATER
		1
		The Most Familiar of Chemical Compounds
		COMPETITIONS FOR YOUNG SCIENTISTS
		67
		A Survey of Projects and Awards
		HOME AQUARIUMS
		112
		Fish Pets and How to Care for Them
		EXPERIMENTS WITH LIGHT
		117
		How It Is Given Off and How It Travels
		EXPERIMENTS WITH MAGNETISM
		142
		A Mysterious Force That Serves Man in Many Ways
		THE NATURE OF MOLECULES
		181
		An Experimental Approach
		THE AMATEUR WEATHERMAN
		283
		How to Set Up Your Own Weather Station