CAVALIER

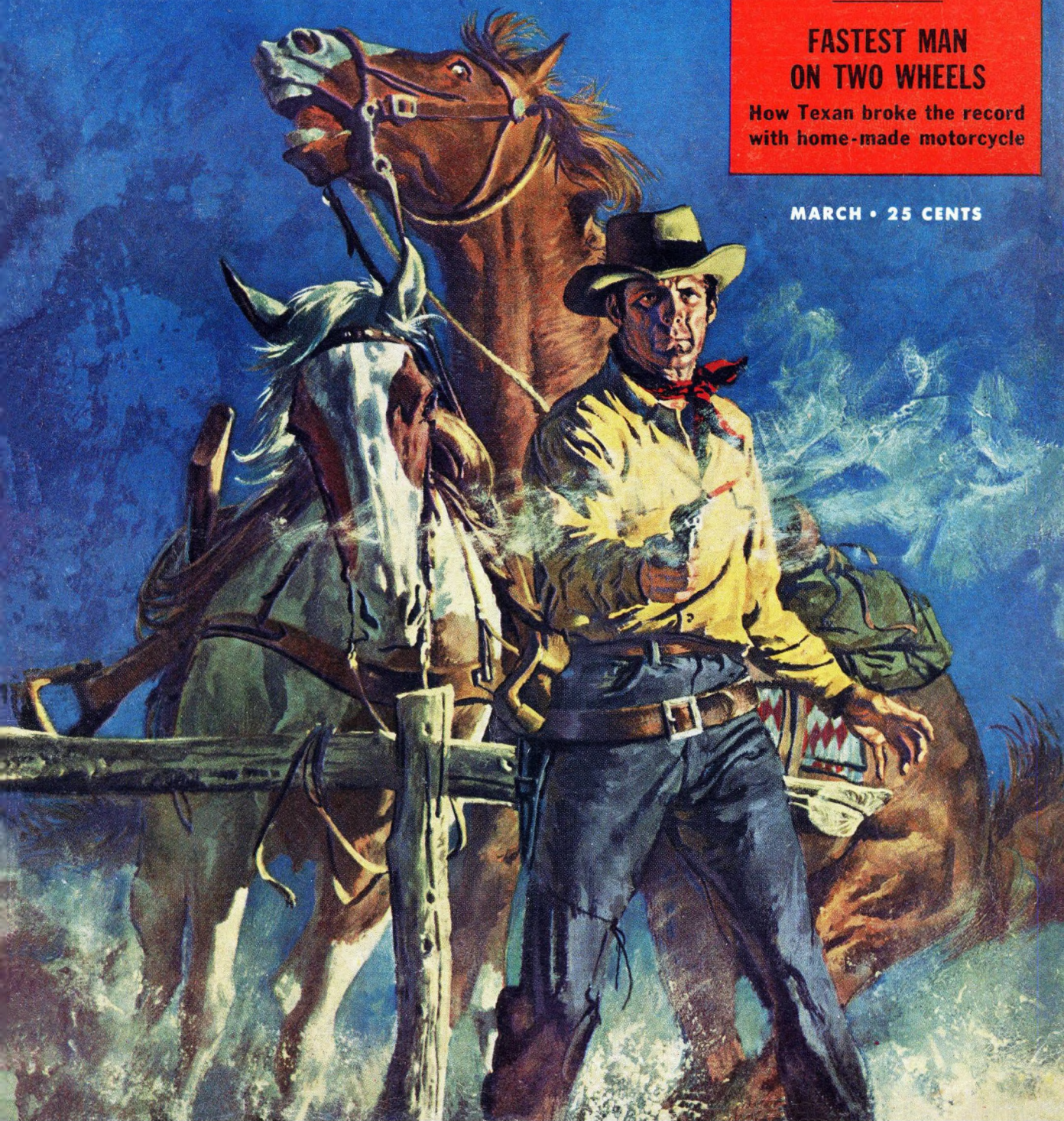
ACTION AND ADVENTURE FOR MEN

DOWN ON THE ICE!
Inside story of Arctic's biggest dirigible disaster

THE MAN WHO ATE A REGIMENT
World's greatest cannibal

FASTEST MAN ON TWO WHEELS
How Texan broke the record with home-made motorcycle

MARCH • 25 CENTS



NATIONAL BOOK CLUB'S

$40,000 CASH PRIZES

FORTUNE IN CASH!

HOURS OF FUN!

"NAME OF FAME" CONTEST!

Do you enjoy the fun, excitement and thrills of solving picture puzzles? Sure you do . . . everybody does . . . especially when your skill can bring you as much as $25,000 in cold cash. And *right now* is your chance to share in the action, the challenge, and . . . yes . . . the cash awards, too . . . of one of the greatest puzzle contests ever run in the United States! It's the sensational new National Contest Book Club Puzzle Contest, just getting under way . . . with 200 great cash prizes totaling $40,000!

Just think what you could do with prize money like that . . . all yours in a lump sum! It could buy you a beautiful new home . . . free and clear! A stunning new car, a boat, a luxury vacation cruise around the world! It could pay for a college education for your youngsters, or make your own retirement easier. It could give you a start in your own business. It could bring you the wonderful security that comes with a big, solid bank account! Enter now, and you may be a prize winner of any of 200 big cash prizes that must be paid. Enter now and make yourself eligible to win a fabulous $2,500.00 promptness bonus along with first prize of $22,500—a grand total of $25,000.00.

1st PRIZE

AS MUCH AS

$25,000.00

PLUS 200 BIG CASH AWARDS, SUCH AS:

2nd Prize.....	$5,000.00
3rd Prize.....	2,500.00
4th Prize.....	1,500.00
5th Prize.....	1,000.00
6th thru 10th ea.	200.00

Plus 190 additional Cash Prizes

Grand Total $40,000.00

THIS SAMPLE PUZZLE IS ALL WORKED OUT FOR YOU

SEE HOW MUCH FUN IT IS TO SOLVE!

This sample puzzle, as all our puzzles, has 3 clues to help you reach the answer. First, study the cartoon. Here it shows one man saying MARK, and the other mentions the word POLE. The letter "O" is shown twice. What else can the answer be but MARCO POLO? Below the cartoon, 4 names are listed as your second clue. Among them is MARCO POLO so you know your answer is right. For the third clue, look at the bottom portion of the puzzle. You will see that various objects and letters of the alphabet are portrayed. Identify each of the objects and add or subtract the letters as indicated. First there is a POT. You are told to subtract the letter T, then you add the word CLOCK which is the next pictured object. Then, you subtract the letters C C K. By correctly adding and subtracting you are left with the letters POLO. This spells the correct LAST NAME.

SAMPLE PUZZLE

The Correct Answer Is ONE Of These Names of Fame!

☐ Marco Polo ☐ Betsy Ross ☐ Genghis Khan ☐ Frank Buck

FREE GIFT!

To All Puzzle Entrants

The Puzzle Encyclopedia

Everyone who enters the National Contest Book Club Puzzle Contest receives this fascinating Puzzle Encyclopedia. Contains hundreds of quizzes, riddles, puzzles. Will give you many, many enjoyable hours.

Write Your Answer In Coupon Below.
We Send Complete Contest Details Immediately.

PRIZES PAID PROMPTLY

IN 2 YEARS $133,000.00 AWARDED FROM NATIONAL PUZZLE CONTESTS

National Puzzle Contests have offered $133,000.00 in prizes within the short space of 2 years! That's a whale of a lot of money! But now the National Contest Book Club . . . with prizes of an additional $40,000 . . . will raise that grand total to $173,000.00! If you are 18 years of age or older and live in the U. S., Canada or a U. S. Possession, you are eligible to enter this fabulous contest. It is sponsored by the National Contest Book Club, Inc. All judging will be conducted in an impartial, impersonal manner to assure absolute equality of opportunity to all. All contestants will receive exact information on the outcome of the contest . . . including names of all winners, plus correct puzzle solutions. All prizes will be paid promptly, in full. All cash prizes are held in escrow at the BANKERS TRUST COMPANY, N. Y.

MAIL COUPON TODAY — Give Yourself A Chance To Win $2,500.00 PROMPTNESS AWARD

National Contest Book Club, Inc.
509 Fifth Ave., Dept. 159, N. Y. C. 17, N. Y.

My Answer to Puzzle No. 1 is:

(PLEASE PRINT) | | | | | | |

I want full particulars about The National Contest Book Club's $40,000 "Name of Fame" Contest. Please mail me FREE the Official Entry Forms, Rules and First Series of Puzzles.

Name_____

Address_____

City_____ Zone_____ State_____

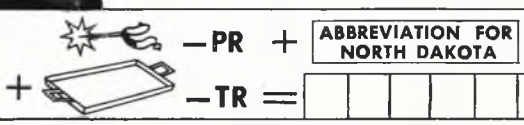
HERE IS YOUR FIRST PUZZLE!

Write Your Answer In Coupon Below (at right) Mail It NOW!

PUZZLE NO. ONE

The Correct Answer Is ONE Of These Names of Fame!

☐ Billy Sunday ☐ Robert Fulton ☐ Cotton Mather ☐ Ira Remsen



NATIONAL CONTEST BOOK CLUB, INC.

509 Fifth Avenue, Dept. 159, New York City 17, N. Y.

ARE THESE MISTAKES HOLDING YOU BACK?

If you're not getting ahead as fast as you'd like, check these possible reasons. Find out why you're not a success and what you can do about it.

YES NO

- ☐ ☐ **Do you put things off?** To get anywhere you have to make a start.
- ☐ ☐ **Do you really want to succeed?** Isn't there something you want enough to work for it? Marriage, a new home, money for your family—all depend on your advancement.
- ☐ ☐ **Are you unwilling to give up temporary pleasures?** Some people think more of a good time now than of promotion and higher pay later on.
- ☐ ☐ **Are you too lazy to plan ahead?** You've got to manage your life, plan for success and stick to it.
- ☐ ☐ **Are you afraid of responsibility?** In a bigger job you'll have to make decisions, act, *be* somebody.
- ☐ ☐ **Are you short on courage?** It takes grit and determination to set a course and stick to it.
- ☐ ☐ **Is your education limited?** The good jobs go to men who *know*—men with sound training in their field. I. C. S. offers you that training.
- ☐ ☐ **Do you think you can't afford specialized training?** College may be too expensive, but home study lets you earn while you learn, at 1/10 the cost.
- ☐ ☐ **Do you hesitate to find out where to get training?** If you shy off from taking the first step, you'll never achieve success.

One out of three who read this page and check their shortcomings will *do* something about it. Two will stay in the rut. One will plan for self-improvement and stay with it till he gets there. Are you the one?

I. C. S. has helped train over 6 million men and women for better jobs. Among its 256 courses there's one that can help *you* succeed. I. C. S. lessons are clear, direct, authoritative. They give you bedrock facts and theory with practical application. Studying at home you can progress at your own speed, have the advantage of individual instruction. Choose the course you need from the list below, and *mail the coupon today!* We'll send you full information plus free book, "How to Succeed."

For Real Job Security—Get an I. C. S. Diploma! **I. C. S., Scranton 9, Penna.** Member, National Home Study Council

INTERNATIONAL CORRESPONDENCE SCHOOLS — 65TH YEAR

BOX 75946A, SCRANTON 9, PENNA.

(Partial list of 256 courses)

Without cost or obligation, send me "HOW to SUCCEED" and the opportunity booklet about the field BEFORE which I have marked X (plus sample lesson):

ARCHITECTURE and BUILDING CONSTRUCTION
- ☐ Air Conditioning—Refrig.
- ☐ Architecture
- ☐ Architectural Interiors
- ☐ Building Contractor
- ☐ Building Estimator
- ☐ Building Maintenance
- ☐ Carpentry and Mill Work
- ☐ Heating
- ☐ Painting Contractor
- ☐ Plumbing
- ☐ Reading Arch. Blueprints

ART
- ☐ Cartooning
- ☐ Commercial Art
- ☐ Fashion Illustrating
- ☐ Magazine Illustrating
- ☐ Show Card and Sign Lettering
- ☐ Sketching and Painting

AUTOMOTIVE
- ☐ Auto Body Rebuilding
- ☐ Auto Elec. Technician
- ☐ Auto-Engine Tune Up
- ☐ Automobile Mechanic

AVIATION
- ☐ Aeronautical Engineering Jr.
- ☐ Aircraft & Engine Mechanic

BUSINESS
- ☐ Advertising
- ☐ Bookkeeping and Accounting
- ☐ Business Administration
- ☐ Business Correspondence
- ☐ Public Accounting
- ☐ Creative Salesmanship
- ☐ Federal Tax
- ☐ Letter-writing Improvement
- ☐ Office Management
- ☐ Professional Secretary
- ☐ Retail Business Management
- ☐ Sales Management
- ☐ Stenographic-Secretarial
- ☐ Traffic Management

CHEMISTRY
- ☐ Analytical Chemistry
- ☐ Chemical Engineering
- ☐ Chem. Lab. Technician
- ☐ General Chemistry
- ☐ Natural Gas Prod. & Trans.
- ☐ Petroleum Engineering
- ☐ Plastics
- ☐ Pulp and Paper Making

CIVIL, STRUCTURAL ENGINEERING
- ☐ Civil Engineering
- ☐ Construction Engineering
- ☐ Highway Engineering
- ☐ Reading Struct. Blueprints
- ☐ Sanitary Engineering
- ☐ Structural Engineering
- ☐ Surveying and Mapping

DRAFTING
- ☐ Aircraft Drafting
- ☐ Architectural Drafting
- ☐ Electrical Drafting
- ☐ Mechanical Drafting
- ☐ Mine Surveying and Mapping
- ☐ Plumbing Drawing and Estimating
- ☐ Structural Drafting

ELECTRICAL
- ☐ Electrical Engineering
- ☐ Electrical Maintenance
- ☐ Electrician ☐ Contracting
- ☐ Lineman

HIGH SCHOOL
- ☐ Commercial ☐ Good English
- ☐ High School Subjects
- ☐ Mathematics

LEADERSHIP
- ☐ Foremanship
- ☐ Industrial Supervision
- ☐ Leadership and Organization
- ☐ Personnel-Labor Relations

MECHANICAL AND SHOP
- ☐ Gas—Electric Welding
- ☐ Heat Treatment ☐ Metallurgy
- ☐ Industrial Engineering
- ☐ Industrial Instrumentation
- ☐ Industrial Supervision
- ☐ Internal Combustion Engines
- ☐ Machine Design-Drafting
- ☐ Machine Shop Inspection
- ☐ Machine Shop Practice
- ☐ Mechanical Engineering
- ☐ Quality Control
- ☐ Reading Shop Blueprints
- ☐ Refrigeration
- ☐ Sheet Metal Worker
- ☐ Tool Design ☐ Toolmaking

RADIO, TELEVISION
- ☐ Industrial Electronics
- ☐ Practical Radio TV Eng'r'ng
- ☐ Radio and TV Servicing
- ☐ Radio Operating
- ☐ Television Technician

RAILROAD
- ☐ Air Brake Equipment
- ☐ Car Inspector
- ☐ Diesel Engineer & Fireman
- ☐ Section Foreman

STEAM AND DIESEL POWER
- ☐ Combustion Engineering
- ☐ Diesel—Elec. ☐ Diesel Eng's
- ☐ Electric Light and Power
- ☐ Stationary Fireman
- ☐ Stationary Steam Engineering

TEXTILE
- ☐ Carding and Spinning
- ☐ Cotton, Rayon, Woolen Mfg.
- ☐ Finishing and Dyeing
- ☐ Loom Fixi'g ☐ Textile Des'ing
- ☐ Textile Eng'r'g ☐ Throwing
- ☐ Warping and Weaving

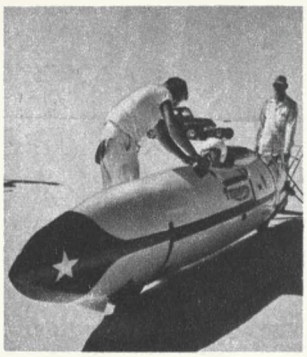
MISCELLANEOUS
- ☐ Domestic Refrigeration
- ☐ Marine Engineering
- ☐ Ocean Navigation
- ☐ Professional Engineering
- ☐ Short Story Writing
- ☐ Telephony

Name_____ Age_____ Home Address_____

City_____ Zone_____ State_____ Working Hours_____ A.M. to P.M._____

Occupation_____

Canadian residents send coupon to International Correspondence Schools, Canadian, Ltd., Montreal, Canada. . . . Special tuition rates to members of the U. S. Armed Forces.



On the flats—a 2-wheel terror

At the Pole—smashup and scandal

In the flesh—a Danish darling

In the cannon—a human projectile

CAVALIER

MARCH, 1957 **A FAWCETT PUBLICATION**

W. H. Fawcett, Jr., *President* Roger Fawcett, *General Manager*

Gordon Fawcett, *Sec.-Treas.* Roscoe K. Fawcett, *Circulation Director* Ralph Daigh, *Editorial Director*

Al Allard, *Art Director* Ralph Mattison, *Assoc. Art Dir.*

James B. Boynton, *Advertising Director*

James B. O'Connell.....*Editor*

Bob Curran .....*Managing Editor* **Gus Gazzola .....*Art Editor***

Arthur Herzog ....*Associate Editor* **Frederick W. Ruleff ...*Associate Editor***

CONTENTS

Cover by FRANK McCARTHY

VOL. 5 NO. 45

John H. Hickerson, *Advertising Manager*

CAVALIER is published monthly by Fawcett Publications, Inc., Fawcett Place, Greenwich, Conn. Printed in U.S.A. Director of Advertising, James B. Boynton. Advertising Offices: 67 W. 44th St., New York 36, N. Y.; 612 N. Michigan Ave., Chicago 11, Ill.; 672 S. Lafayette Park Place, Los Angeles 57, Cal.; 110 Sutter St., San Francisco 4, Cal.; 1589 Guardian Bldg., Detroit 26, Mich. Editorial Offices: 67 West 44th St., New York 36, N. Y. General Offices: Fawcett Place Greenwich, Conn. Entered as second-class matter August 15, 1952 at the post office at Greenwich, Connecticut, under the act of March 3, 1879. Additional entry at Louisville, Ky. Copyright 1957 by Fawcett Publications, Inc. Reprinting in whole or in part forbidden except by permission of the publishers. Title registered in the U. S. Patent Office and applied for in Canadian Patent Office. Address manuscripts to New York Editorial Offices. Not responsible for lost manuscripts or photos. Unacceptable contributions will be returned, if accompanied by sufficient first-class postage. Price 25¢ per copy, subscription price $2.00 for one year in the United States, possessions and Canada. All other countries $2.00 for one year. Foreign subscriptions and sales should be remitted by International Money Order in United States funds payable at Greenwich, Conn.

GREATEST ADVANCE IN SHOP-METHOD HOME TRAINING

EARN MORE MONEY... GET INTO TELEVISION ELECTRONICS–RADIO

Learn ALL 8 PHASES in ONE MODERN HOME-STUDY COURSE

At Home — In Spare Time

19 BIG KITS YOURS TO KEEP

YOU GET ALL THIS NEWEST PRACTICAL EQUIPMENT

- Parts to build a modern TV set, including all tubes plus a large screen Picture Tube
- Parts to build a powerful Superhet Receiver, standard broadcast and short wave
- Parts to conduct many experiments and build Continuity Checker, RF Oscillator, TV Circuits, Audio Oscillator, TRF Receiver, Signal Generator
- A Valuable Professional Multitester

YOUR NATIONAL SCHOOLS TELERAMA COURSE COVERS ALL 8 PHASES

1. TELEVISION, INCLUDING COLOR TV
2. RADIO, FM AND AM
3. INDUSTRIAL ELECTRONICS
4. SOUND RECORDING AND HI FIDELITY
5. PREPARATION FOR FCC LICENSE
6. AUTOMATION
7. RADAR AND MICRO WAVES
8. COMMUNICATIONS

YOU ARE NEEDED IN THE TELEVISION-ELECTRONICS-RADIO INDUSTRY! You can build a secure future for yourself if you get into Electronics NOW! Today's shortage of trained technicians creates tremendous opportunities. National Schools Shop-Method trained technicians are in constant and growing demand for high-pay jobs in Broadcasting and Communications, Electronic Research, Servicing and Repair, and many other branches.

Let National Schools, a Resident Technical School for over 50 years train you for today's unlimited opportunities in electronics! Our Shop Method trains you to be a MASTER-TECHNICIAN. Completely up to date, developed by experienced instructors and engineers, your Telerama Course will teach you all phases of the industry quickly, clearly and correctly. You can master the most modern projects, such as Color TV, printed circuits — even prepare for FCC License without taking a special course. You can handle sales, servicing, manufacturing, or make good money in your own business. SEND FOR FACTS TODAY!

EARN AS YOU LEARN. Many of our students earn their entire tuition and more in Spare Time jobs we show them how to do while learning.

YOU GET EVERYTHING YOU NEED — Clear, profusely illustrated lessons, shop-tested manuals, modern circuit diagrams, practical job projects — all the valuable equipment shown above — many other materials and services — consultation privilege with our qualified staff, and Graduate Employment Service. EVERYTHING YOU NEED for outstanding success in Electronics.

RESIDENT TRAINING AT LOS ANGELES

If you wish to take your training in our Resident School at Los Angeles, the world's TV capital, start NOW in our big, modern Shops, Labs and Radio-TV Studios. Here you work with latest Electronic equipment—professionally installed—finest, most complete facilities offered by any school. Expert, friendly instructors. Personal attention. Graduate Employment Service. Help in finding home near school—and part time job while you learn. Check box in coupon for full information.

MEMBER

NATIONAL HOME STUDY COUNCIL

NATIONAL COUNCIL OF TECHNICAL SCHOOLS 1944

FREE! Fully illustrated "Career" Book in TV-Radio-Electronics. PLUS actual sample lesson—yours at no cost, no obligation. CLIP COUPON NOW . . . MAIL IT TODAY!

APPROVED FOR G.I. TRAINING

NATIONAL SCHOOLS

4000 S. FIGUEROA ST., LOS ANGELES 37, CALIF.
187 N. LA SALLE ST., CHICAGO 1, ILL.
IN CANADA: 811 W. HASTINGS ST., VANCOUVER, B. C.

NATIONAL SCHOOLS

TECHNICAL TRADE TRAINING SINCE 1905
LOS ANGELES 37, CALIFORNIA

GET FAST SERVICE—MAIL NOW TO OFFICE NEAREST YOU!

NATIONAL SCHOOLS, DEPT. RO-27
4000 S. FIGUEROA ST. LOS ANGELES 37, CALIF. OR 187 N. LA SALLE ST. CHICAGO 1, ILL.

Rush free TV-Radio "Opportunity" Book and sample lesson. No salesman will call.

NAME _____ AGE _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

☐ Check if interested ONLY in Resident School training at Los Angeles.

VETERANS: Give date of Discharge _____

GAGS FOR MEN ONLY

A druggist in a small town picked up the phone and got the following blast. "I am coming over there to knock your block off. No man can say what you did to my wife and get away with it."

The druggist paused and then answered. "Listen to my story first. I got up this morning, put the coffee on, started to shave, but couldn't find a new blade. While I was pulling out my whiskers with the dull blade, the coffee boiled all over the stove. I went to drink what was left and spilled the damn stuff all over my suit, changed my suit, and got in the car to drive to town. Couldn't start the fool thing but finally managed to hitch a ride. When I got down here, the phone was ringing off the wall. I went to unlock the door and found my keys were in the suit I took off. Phone kept ringing, so I figured it might be some emergency and smashed $12.50 worth of window so that I could unlatch the door. When I picked up the receiver, some woman wanted to know how to use a rectal themometer.

"I told her."

LOOKING AT THE GIRLS

"That girl has the Midas touch in reverse—no matter how much gold you give her, she'll instantly turn it into something else."—Van Johnson

"If she had her life to live over again, she should give the job to an understudy."—Don Ameche

"Her mind is a closed book, and what's worse, she is an awfully plain wrapper." —Joseph Cotten

"She's the kind who would put a knife in your back and then have you arrested for carrying a concealed weapon." —Xavier Cugat

★ ★ ★

"A woman columnist wrote the other day that she could hardly recognize Marilyn Monroe with her new hairdo. But who in heck would try to recognize Marilyn by her hairdo?"—Sidney Skolsky

"That girl is so perfect, even practice couldn't make her."—Peter Lawford

"Sweater girls can be so deceptive! Often that beauty goes only skein deep." —Keenan Wynn

"She is so ugly that even the sidewalk photographers skip taking her picture." —Jack Carson

★ ★ ★

According to Victor Mature, a nouveau riche middle-age couple went to Paris for their first trip abroad. The day they arrived the wife said, "Think I'll go shopping because I've always wanted to buy a dress designed by a French dressmaker."

"Okay," agreed the husband, "where will we go first?"

"I'd rather go alone," she said, "while you go to the Louvre and see the paintings." He agreed so they went their respective ways.

Strolling down the Champs de Elysees he was accosted by a striking looking and shapely street walker. He bought her a drink and when she suggested a rendezvous, asked the price.

"$20," she said.

"Not me," he declared, "$5.00 is my limit!"

So nothing happened and he went on his way. The following day both husband and wife were strolling down the same boulevard and stopped in front of a window to look at some antiques. The street walker saw them, recognized him, indicated his wife and said sarcastically:

"See what you get for $5.00?"

★ ★ ★

When Orson Welles returned to Hollywood after many years of absence, he needed urgent briefing on the town's new "Who's Who."

Reading the movie columns religiously in order to bring himself up to date, he came across an item quoting an actress to the effect that she and a certain actor were "just good friends."

"Will you set me straight on this," Welles asked a friend. "Are they preparing to elope, or have they just divorced?"

★ ★ ★

Marlon Brando told the story about a chap who came home unexpectedly one evening and found his wife in the arms of his best friend. Heated words followed and finally the friend confessed, "Yes, I love your wife and I want her to leave you and marry me. What do you want to do about it?" The husband replied, "Tell you what I'll do, you like to gamble, don't you?"

"Yes," answered the friend. The husband said:

"Then I'll play you a game of gin rummy for her!"

"Okay!" said the friend. The husband then added:

"To make it interesting I'll play you for a penny a point on the side!"

It happened at the old Friars Club in New York. A crowd used to gather every afternoon to play draw poker for table stakes. One player had a very bad reputation for not paying his gambling losses and also for passing out bouncing checks, so the ruling was made that the phony couldn't play in the game unless he purchased chips in advance—for cash.

Wilson Mizner, the famous wit, came to town and was invited into the game. Eventually he hooked up in a pot with the phony with the bad rep. The betting was so fast and furious that all the other players dropped out. Finally, completely out of chips, the phony drew a leather wallet out of his inside pocket, slapped it on the table and said, "I'll raise you five thousand."

Fully aware of his rep and with his keen sense of humor, Mizner quickly reached under the table, slipped off his shoe, also slapped it on the table and said, "If you're betting leather, I'll call."

★ ★ ★

Two horse players met. One looked unusually glum, so his friend asked what the trouble was.

"I had $100 stashed away in a drawer and when I went to get it it was gone," the sad gent explained.

"Well, what happened to it?"

"The wife found it and blew it on the rent and groceries."

Hollywood TV producer Phillip Cohan was worried by what he saw and phoned the wife of an actor who once in a while worked for him.

"Jane, you better come down to the Brown Derby and look after your husband," he told her. "He is in the bar, and something seems to be wrong with him."

"There is nothing unusual about him being in the bar," said the little woman.

"No," replied Cohan, "but he's in the bar and he's refusing drinks."

WHAT HAPPENS WHEN A MAN DECIDES TO DO SOMETHING ABOUT HIS FUTURE!

The proven rule of "learn more to earn more" took M.E.F. (name on request) from a position of truck driver to that of an accounting executive in sixteen months. Listen to what M.E.F. says:

"I was driving a truck—working long hours and not making much money. I had a burning desire to better myself in life, and decided to enroll with LaSalle. I went along driving my truck days and studying nights and got my first break after completing 35 assignments. I took a cost accounting position. Within one month after starting full-time, I received my first raise, thereafter followed more. One of the greatest thrills of my life came just nineteen months after I started with LaSalle. When our firm opened up a branch office, I was assigned to take charge of the Accounting Department and my salary is doubled."

M.E.F. took a proved road to success—and his letter is typical of the thousands we have in our files from men and women in all walks of life.

There is no reason why you can't win success through LaSalle Accounting Training. Today the demand for good accountants far exceeds the supply. This spells real opportunity to the man who is prepared.

You need no special talents to become a success in Accounting. You do not even need a preliminary knowledge of bookkeeping. All you need is the will to work—to achieve success perhaps years sooner.

Under the LaSalle Problem Method you can acquire a thorough knowledge of Accounting—you can master its fundamental principles—become expert in the practical application of those principles. You learn by doing—without losing any time from your present work. You train directly under the supervision of a competent staff of Certified Public Accountants and accounting experts.

Our book "Accountancy, The Profession That Pays" is FREE. It explains how we train you from the ground up—or from where you are now—according to your individual needs. The cost is low—terms easy.

Send the coupon RIGHT NOW. Don't lay it aside and say you'll do it later. It can be the means of your SUCCESS—perhaps larger success than you have ever dreamed. At least it's worth considering.

MAIL THE COUPON—NOW!

CHARTER MEMBER OF THE NATIONAL HOME STUDY COUNCIL

OVER 4,200 CPA's HAVE BEEN TRAINED BY THE FAMOUS LASALLE PROBLEM METHOD

LEU

SEND FOR FREE BOOK

LaSalle EXTENSION UNIVERSITY
A Correspondence Institution

DEPT. H616 417 SOUTH DEARBORN STREET, CHICAGO 5, ILLINOIS

Please send me, free of all cost or obligation, your illustrated book, "Accountancy, the Profession That Pays."

Name _____ Age _____

Address _____

City, Zone, State _____

YOU SAID IT. . .

TO CAVALIER • 67 W. 44th STREET • NEW YORK 36, N. Y.

PHONY PHYSICS

Bill Ballantine's "One False Step and —Splat!" was an interesting story, but I fully disagree that the bicycle-on-a-wire act is dangerous. I've learned enough physics to know that the combined weight of the bike, the trapezes and performers lowers the center of gravity so that the bicycle is stable. In my estimation, the bike couldn't be knocked off by a cannon.

B. Smith
Tokyo, Japan

Alzana and his entire bicycle act fell in 1947. He fractured his spine, so did his sister. Their father tore the ligaments in his neck. Two other Alzanas miraculously escaped injury in the same accident. For more on circus daredevils, see page 38 of this issue.

RECOGNITION—PLANE AND FANCY

Happily wending my way through November CAVALIER, I was entertained by your story "Greatest Fighter Pilot that Ever Lived" about Hans Marseille, the German ace. But I was surprised to read that Marseille never smoked, while across the page is a picture showing Marseille with a pipe in his pocket. Did he use it to blow bubbles? Where would he have gotten the water in North Africa?

Lt. Bruce E. Benson
Phoenix, Arizona

Sharp-eyed Lt. Benson illustrated his letter with his conception (shown below) of Captain Marseille, the bubble-blowing ace. Benson is right, of course: Marseille did smoke a pipe.

In the Marseille story you mention a British plane called a Lysander. In all my plane recognition courses I must have repeatedly slept through the photo of a Lysander.

M. D. Montgomery
Billings, Mont.

You say—and Marseille's log verifies—that he shot down a number of P-46s. What the hell is a P-46? The only type of 46 the U. S. had was the Douglas O-46 which was obsolete. Could it be that Marseille had everyone snowed? Maybe he should be rated the "Best B. S. Artist in the World." Clue me if I'm wrong.

R. Hodges
Colo. Springs, Colo.

We may get caught with our flaps down once, but not twice. The Lysander was a high-wing, two-seater the British used as a night fighter. The P-46 was a P-40 souped up for desert fighting—the British called it the "Tomahawk." Both planes were used extensively in the early days of the North African fighting.

DUMB DIVERS

I don't think your natives—"The South Seas' Incredible Land Divers"—are very intelligent. To prove their superiority to women they have to dive onto dry land

from high towers, while the women watch below. If they were really smart they'd make the women do the diving.

Elsie Lancaster
Butte, Montana

The ways of men may seem mysterious, Elsie, but don't try to understand them. The natives have their own way of handling their women—as all men do.

WAYS OF THE REDMAN

I have just finished reading "I Am Cochise" (Dec.) and I want to say it is the most interesting article I have ever read on the ways of the Indians in our country. Do you happen to know where I can get a photo of Cochise?

Jack Thibeau
Chicago

We searched high and low for a picture of Cochise to use with the article, but couldn't find one. Apparently he was camera shy.

JAMES WILLARD SCHULTZ

I read with great pleasure James Willard Schultz' "My Last Great Buffalo Kill" in the November issue. Mr. Schultz has long been a favorite author of mine. Can you give me his address?

J. R. Snyder
Evanston, Ill.

We wish that we could. James Schultz, one of the finest writers of the west, died several years ago. He will long be missed. We plan, however, to print more of his previously unpublished stories.

THE READER SCREAMS

I have just read your story about the 101st Airborne, "The Eagle Screams Again" (Dec.) and liked it. But you ought to know better than to call a streamer a cigarette roll. Also, what jumpmaster is going to wait until the green light is on to stand his men in the door. That little error would put the last men out in the trees.

Pat Phelan
Casper, Wyo.

Hold on, Pat. The difference between a cigarette roll and a streamer is academic—both mean a tangled or unopened canopy. CAVALIER'S *man was a little nervous up there between "Stand up and hook up"—and "Stand in the door," which is why he failed to notice exactly when the green light went on. Back to the 34-foot tower for him, and for you, too.*

NOTRE DAME MEMORIES

I have just dug out of my bookcase and presented to my neighbor, an ardent Notre Dame fan, a copy of your December, 1954 issue in which you forecast Trouble for Notre Dame and said that by 1956 N. D. would be just another ball team. How did you know?

Ed Moriarty
Quincy, Ill.

We are handwriting (on wall) experts.

PERFECTIONISTS WITH GUNS

Your "Hard-Way Shooters" (Jan.), don't deserve the name hunter. They're only interested in target practice not in bringing down game, like normal hunters. If the varminter really wants to give himself a challenge, why doesn't he try shooting his 'chucks by radar?

V. M. Knowles
San Diego, Calif.

A SENSATIONAL NEW OFFER FROM THE COLUMBIA (LP) RECORD CLUB

Free... Any 3

OF THESE SUPERB HIGH-FIDELITY 12" COLUMBIA (LP) RECORDS

If you join the Columbia (LP) Record Club now—and agree to accept as few as 4 selections during the coming 12 months

YES! You may have, FREE, ANY 3 of these best-selling 12" Columbia (LP) records. We make this unique offer to introduce you to the money-saving program of the Columbia (LP) Record Club . . . a program that selects for you each month the greatest works in every field of music—performed by the world's finest artists and brilliantly reproduced on Columbia (LP) records.

HOW THE CLUB OPERATES

To enjoy the benefits of the Club's program and to receive your 3 records free—mail the coupon, indicating which of the four Club divisions best suits your musical taste: Classical; Jazz; Listening and Dancing; Broadway, Movies, Television and Musical Comedies.

Each month you will receive free the Club Magazine which describes the current selections in all four divisions. You may accept or reject the monthly selection for your division. You may also take records from the other Club divisions. This unique advantage assures you the widest possible choice of recorded entertainment. Or you may tell us to send you NO record in any month. Your only obligation is to accept as few as 4 selections from the almost 100 that will be offered during the next 12 months, and you may cancel membership at any time thereafter. The records you want are mailed and billed to you at only $3.98 (original cast Broadway Shows somewhat higher) plus a small mailing charge.

FREE BONUS RECORDS GIVEN REGULARLY

The 3 records sent to you now represent an "advance" of the Club's bonus system—given to you at once. After you have fulfilled your membership obligation by purchasing four records, you will receive an additional free Bonus record of your choice for every two additional Club selections you accept. Bonus records are superb 12" Columbia (LP) records—the very best of the world-famous Columbia (LP) catalog—just like those shown here. Because you are given a Columbia (LP) record free for each two records you purchase from the Club, your membership provides the best buy in records—anywhere.

Indicate on the coupon which 3 records you want free, and the division you prefer. Then mail the coupon at once. You must be delighted with membership or you may cancel without obligation by returning the free records within 10 days.

COLUMBIA (LP) RECORD CLUB
165 West 46th Street, New York 36, N. Y.

MAIL ENTIRE COUPON NOW!

COLUMBIA (LP) RECORD CLUB,
Dept. 136, 165 West 46th St.,
New York 36, N. Y.

Please send me as my FREE gift the 3 records indicated here: (Select the records you want by checking the 3 boxes in the list at the right)
. . . and enroll me in the following Division of the Club:

(check one box only)

☐ **Classical** ☐ **Listening and Dancing**

☐ **Broadway, Movies, Television and Musical Comedies** ☐ **Jazz**

Each month you will send me the Columbia (LP) Record Club Magazine which describes the records offered in all four Club divisions. I have the privilege of accepting the monthly selection in the division checked above, or any other selection described, or none at all. My only obligation is to accept a minimum of four records in the next 12 months at the regular list price plus a small mailing charge. After accepting 4 records, I will receive a free Bonus record for every two additional records I purchase. If not delighted with membership, I may cancel within 10 days by returning all records.

Name.....
(Please Print)

Address.....

City.....Zone.....State.....

CANADA: Prices slightly higher.
Address 11-13 Soho St., Toronto 2B

If you wish to have this membership credited to an established Columbia Records dealer, authorized to accept subscriptions, please fill in the dealer's name and address also.

Dealer's Name.....

Dealer's Address..... 45A-3

CHECK THE 3 RECORDS YOU WANT:

☐ **Tchaikovsky: Nutcracker Suite; The Sleeping Beauty Ballet** Philadelphia Orchestra, Ormandy, cond.

☐ **Day Dreams** Doris Day sings 12 popular songs—including *Sometimes I'm Happy, You Go To My Head,* etc.

☐ **King of Swing; Vol. 1** Benny Goodman and Original Orch., Trio Quartet. *Ridin' High, Moonglow*—9 more.

☐ **My Fair Lady** Percy Faith and his Orchestra play music from this hit show.

☐ **Brahms: Double Concerto; Variations on a Theme by Haydn; Tragic Overture** Stern, violin; Rose, 'cello; N. Y. Philharmonic, Walter, cond.

☐ **Songs from Walt Disney's Magic Kingdom** 12 happy songs from famous Disney films.

☐ **Concert by the Sea** Erroll Garner — recorded in an actual performance at Carmel, Calif.—playing 11 numbers—*Red Top, Where or When,* etc.

☐ **Levant Plays Gershwin** 3 works—Rhapsody In Blue; Concerto in F; An American in Paris.

☐ **The Voice** Frank Sinatra in 12 songs that first made him famous — *Lover, Fools Rush In,* etc.

☐ **Rimsky-Korsakov: Scheherazade** Philadelphia Orch., Ormandy, conductor. A superb performance of this exotic score.

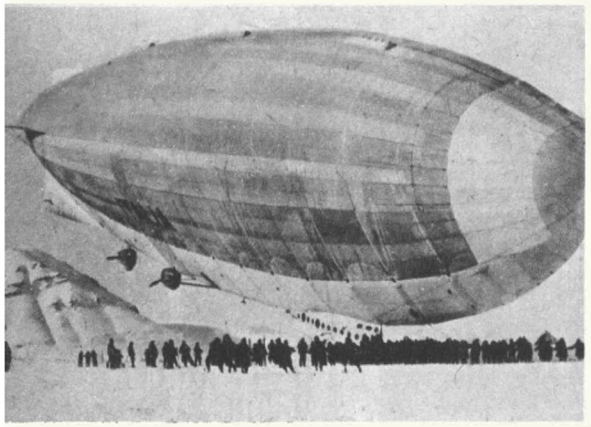
☐ **Music of Jerome Kern** Andre Kostelanetz and his Orchestra play 20 Kern favorites.

☐ **Jazz: Red Hot & Cool** Dave Brubeck Quartet in *Love Walked In, The Duke*—5 more.

Now The Full Story:

TO THE POLE IN A GAS BAG

The Italia's tragic crash grabbed world headlines. But out of the garbled accounts came an even bigger, more sensational story. Here, from the survivors themselves, is the truth



AIRSHIP Italia as it looked just before it started across Arctic on way to North Pole and disaster.

LEADER General Umberto Nobile was 43 and a hero in Italy at time of second attack on Pole.

BY JOHN TOLAND

BOOK-LENGTH TRUE ADVENTURE

The following narrative is based on several chapters from a new book about dirigibles titled Ships In the Sky *by John Toland to be published soon by Henry Holt and Company.*

In the spring of 1926 the imagination of all mankind was centered on two small outposts of civilization, each well within the Arctic Circle—Point Barrow, Alaska, and the tiny town of King's Bay, on the Norwegian island of Spitsbergen. For 29 years, since the suicidal attempt of Salomon Andree to free-balloon across the Pole, man had made sporadic and vain attempts at this seemingly most unobtainable goal in aviation.

On May 8th, Commander Richard E. Byrd, flying from King's Bay, successfully flew to the Pole and returned safely. Captain George H. Wilkins, who in Point Barrow had been racing to beat Byrd into the air, gave up his attempt shortly after, but the world still held its collective breath. For at King's Bay, Colonel Umberto Nobile, of Italy, Roald Amundsen, of Norway, and Lincoln Ellsworth, of the United States, were readying for a Polar flight which seemed almost as madly suicidal as the fatal attempt so many years before of Salomon Andree. In the semi-rigid Italian airship, *Norge*—a midget compared to the great rigid dirigible *Shenandoah* which had been destroyed in a summer line squall the year before—they were calmly planning a flight across the top of the world from Spitsenberg to Point Barrow, through arctic weather which had overwhelmed and destroyed so many land expeditions in the long years of Polar exploration.

At 8:30 on the morning of May 11, 1926, the *Norge* was pulled slowly out of its strange, roofless hangar and was led, like a great white whale of the sky, to King's Bay's small, snow-covered air field.

King's Bay was beautiful in the yellow light of the perpetual sun. White-capped mountains surrounded the long arm of sea near the hangar, enclosing it in a kind of amphitheatre of snow and ice.

After a few brief goodbyes, the *Norge* slowly rose. Those on the ground were worried as the airship gracefully headed toward the North Pole. But those on board felt only joy and relief. At last, after many months of preparation which had been marred by bitter personal wrangles, they were off.

CREW MEMBERS Dr. Behounek and Lt.-Comm. Viglieri at crash site, stand guard over the radio that saved their lives.

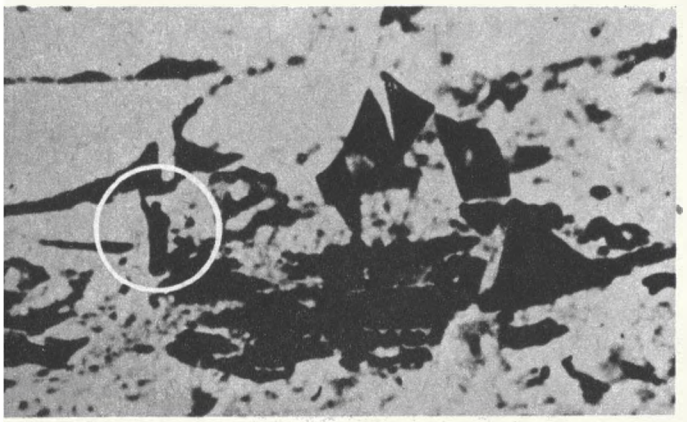
Suddenly there was a roar, and a blue Fokker flew by the *Norge*. It was Commander Richard E. Byrd's plane, the *Josephine Ford*, which only three days before had been the first aircraft ever to fly over the North Pole. Byrd waved in greeting. For an hour the American plane hovered around the plodding airship it had beaten in the bitterly-contested race to the Pole. Then there was a final wave from Byrd and the *Josephine Ford* turned back toward King's Bay.

The skipper of the *Norge*, Colonel Umberto Nobile, waved in answer. Then, grim-faced, he once more faced the north. A man of fanatic determination, he had been deprived the honor of being first over the Pole, but an even greater and more dangerous endeavor—the first exploratory trip across the roof of the world to Alaska—lay ahead.

The sky was pure turquoise as the semi-rigid airship headed toward the Pole. Below, its dark shadow ran over the broken ice, startling three white whales, which headed in apparent panic for the protective shelf of an ice floe. Polar bears,

CRITIC Roald Amundsen of Norway predicted foul-up, but gave life in rescue effort.

To the Pole In A Gas Bag



HISTORIC photo taken from plane that spotted wreck, shows the ruins of gondola (right), one survivor (circled).

frightened by the monster in the air, dove from ice cakes, sending up silent columns of spray.

At 10:30 the ice-edge was passed. A thousand feet below the explorers lay the ice field of the Polar Sea. Glittering in the sunlight, it was inspiring yet terrifying in its immensity. The 16 members of the Amundsen-Ellsworth-Nobile Polar Expedition now settled down for the long trip to Alaska. They were an oddly-assorted lot. Although Nobile was captain of the dirigible, the titular leader of the expedition was Roald Amundsen, the Norwegian discoverer of the South Pole. Next in command was a wealthy American, Lincoln Ellsworth—as efficient as he was affable. Six Norwegians, five Italians and one Swede completed the crew. There were also two passengers: the Norwegian journalist, Ramm, and Nobile's little white terrier, Titina.

The *Norge* was as strange as its crew. Compared to the great rigid dirigibles, like the *Shenandoah*, the *Norge* was a baby airship. It was only 348 feet long, with a capacity of a little less than 550,000 cubic feet. Its gas bag was divided into a number of compartments by means of transverse diaphragms. Unlike the rigid ships, this great gas bag wasn't enclosed in a metal frame, but was covered simply by rubberized three-ply fabric. A V-shaped keel, running along the bottom of the ship like a tunnel, gave the *Norge* semi-rigidity. An ingenious system of air ballonets compensated for any loss of hydrogen and kept the ship from losing its shape.

Three 250 horse-power motors drove the dirigible at a top speed of 71.4 miles an hour. But for long flights only two motors were used, giving the *Norge* a cruising speed of 50 miles an hour. The motor in the rear gondola, just aft of amidships, was always in use. The other two motors, located just forward of amidships, were run alternately. The idle motor was kept warm through pipes connected with its active partner.

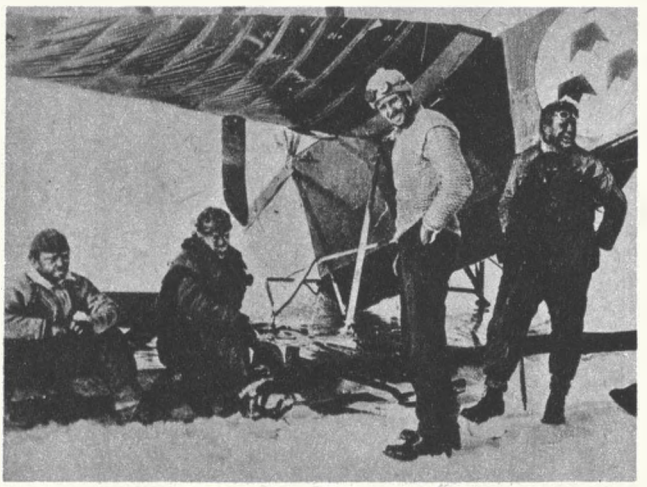
The control cabin, fastened directly under the forward part of the keel, was divided into several sections. Forward were the controls. The rudder wheel was centrally located near the front window; the elevator wheel, which sent the ship up or down, was on the starboard side. Over the helmsman's head were toggles for the hydrogen valves and controls that regulated the air pressure in the air ballonets.

In the rear section of the gondola was a compartment for the navigator, containing the only two chairs on the ship. In the stern on the starboard was a tiny radio room and on the port, a lavatory. In front of the radio room, a vertical ladder led up into the open keel.

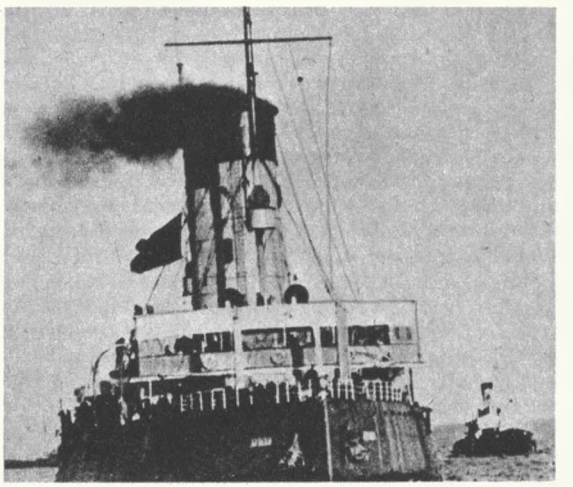
The top of the aft section of the control car was covered with a cloth roof, but the forward part was open. Without leaving his post directly under the engine telegraph system, Nobile could look up and shout orders directly to riggers on the keel.

All in all, the *Norge* was a tight, carefully-conceived, and exceedingly practical little ship.

The idea for the daring expedition had originated with



BY AIR the first rescue came—and took Nobile. On second landing plane overturned. Note position of skis.



BY SEA, often through ice, came the Russian ice cutter, *Krassin*, to get all remaining survivors of expedition.

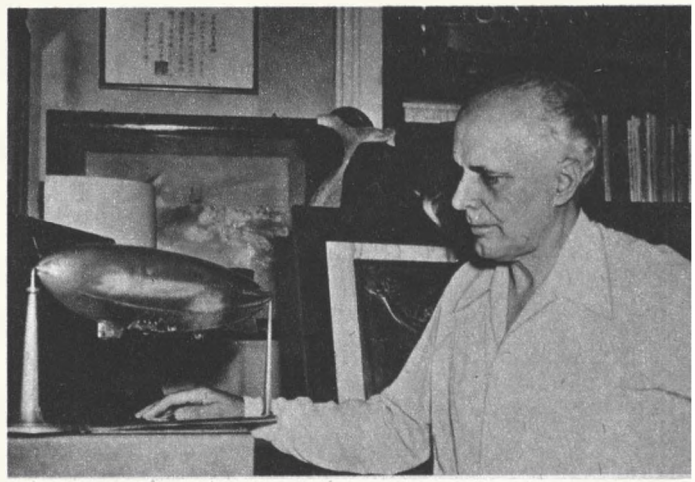
Amundsen. In the Spring of 1925 the Norwegian had attempted a flight across the Polar Sea with Lincoln Ellsworth, Leif Dietrichsen and Hjalmar Riiser-Larsen in two Dornier seaplanes. The planes had been forced to land on the ice pack and for 25 days were given up for lost. Airmen of many countries were in the midst of rescue operations when one of the Dorniers was repaired and made a remarkable take off with all four men.

As soon as the Amundsen party returned safely to Spitsbergen, the grizzled 53-year-old leader, who had aged at least 10 years in the first five terrible days on the ice pack, could talk of little but a second flight. This time Amundsen, having no stomach for another forced landing in a plane, insisted on an airship. Riiser-Larsen, who had taken an airship pilot's course in England, suggested that the N-1, an Italian semirigid dirigible built by Colonel Umberto Nobile, would be the safest and most practical type of ship for the expedition. A tentative proposal was made to Nobile. The Italian airshipman was enthusiastic. He had long been mulling over just such a trip himself. He agreed to come immediately to Norway and talk things over.

Ellsworth put up $85,000 for the expedition and the Norwegian Aero Club agreed to be sponsor. Late in June Nobile arrived at the Amundsen home in Bundefjord, near Oslo. A small, energetic man of 41 with deep, brooding eyes, he told Amundsen, Ellsworth and Riiser-Larsen that Italy's dynamic Premier, Benito Mussolini, was greatly interested in the trip and would donate the army airship, N-1, if the Italian flag were flown.

Amundsen, a strange, tormented, super-sensitive man, refused bluntly: as far as he was concerned, the expedition was strictly a Norwegian and American venture. Nobile quickly made a new proposal. He said Mussolini would be willing to sell the ship for $75,000. The others eagerly snapped up the offer. In August they went to Rome to sign the contract.

At this second meeting Nobile promised to pilot the ship if experienced Italian mechanics and riggers were signed on. This was agreeable to Amundsen, provided his old comrade, Oskar Wisting, one of the four men to accompany him on his successful race to the South Pole, would man the elevators, Emil Horgen the rudder, and Riiser-Larsen take charge of navigation.

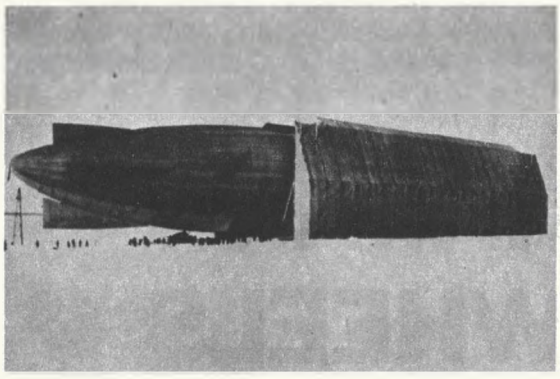


NOBILE TODAY at the age of 72 is teaching aeronautics at Naples University. Models help him remember old days.

Nobile made no objections. But when Amundsen kept insisting that he and Ellsworth would be in absolute charge of the expedition and make all the major decisions, the colonel became quite evidently worried. The only non-Italian who had ever been inside an airship and understood its peculiar limitations was Riiser-Larsen. Nobile wanted it understood that if, in his opinion, conditions were too bad, the ship would return to Spitsbergen after reaching the Pole instead of flying, as planned, on to Alaska.

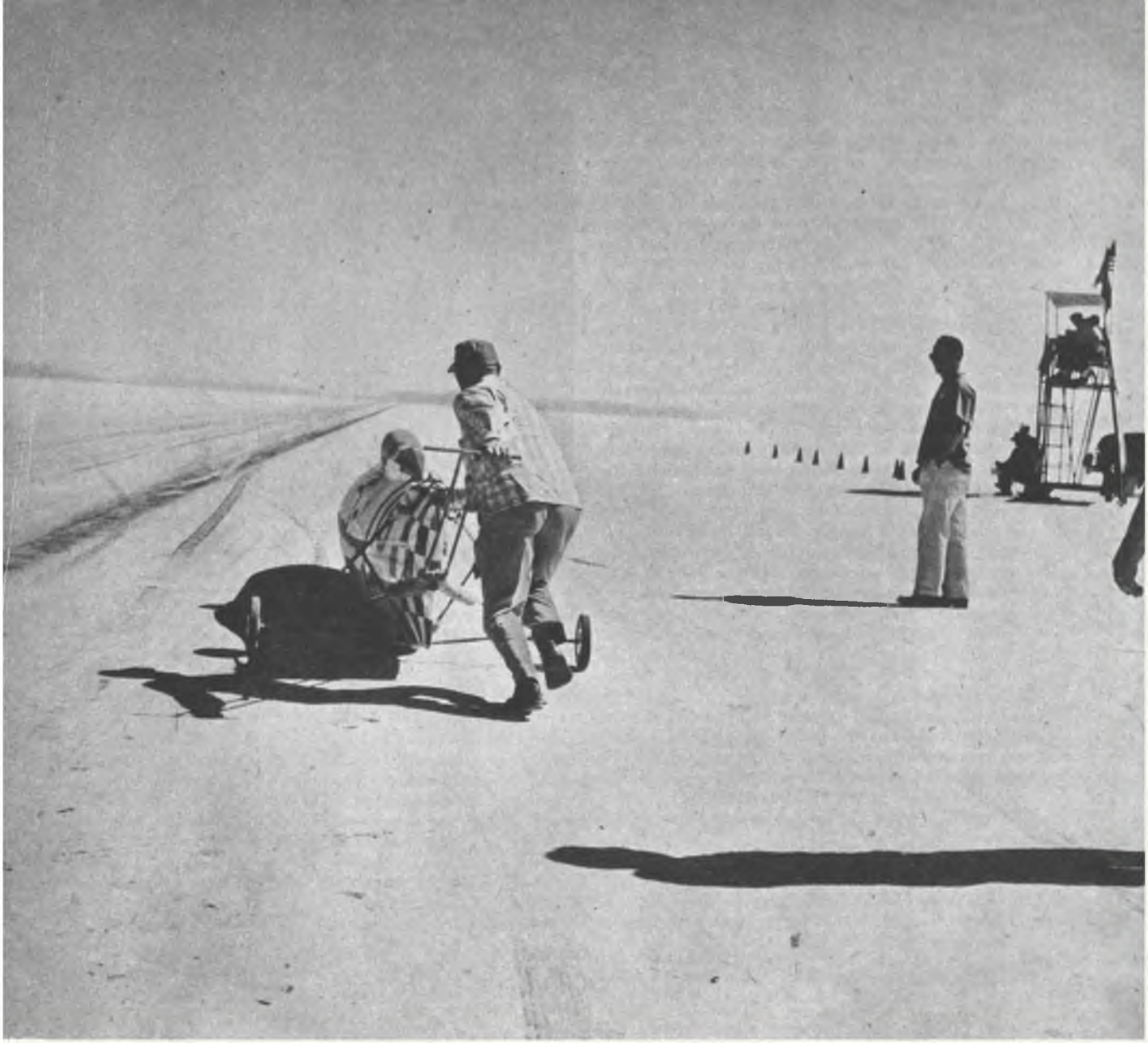
"Nothing doing," Amundsen snapped. "You're only a hired pilot."

Nobile decided that the flight [*Continued on page* 69]



STRANGE HOME of Italia was this domeless hangar where the airship was kept during its preparation runs.

STRANGE LOOK of airship came from many Nobile innovations that helped make ship stronger and lighter.



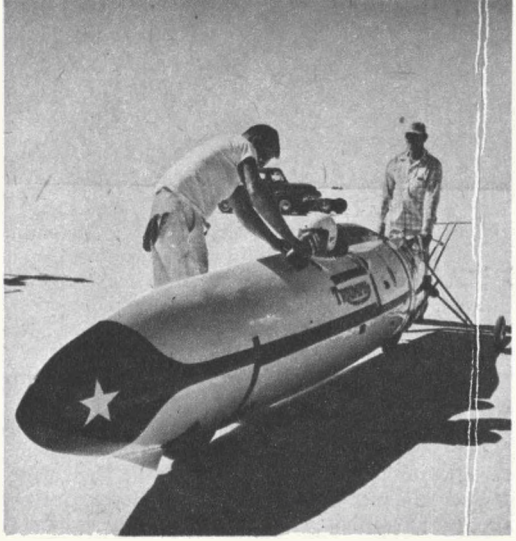
Stormy Mangham pushes off his Texas cigar with Johnny Allen driving for record-breaking 214 mph run at Bonneville.

Duel on the Salt Flats

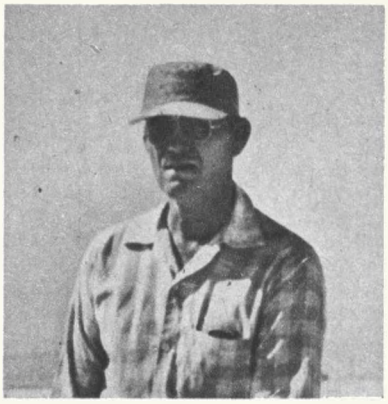
FASTEST MAN ON TWO WHEELS

With his homemade, radically designed motorcycle, this tough Texan blew into Bonneville and blitzed a high-powered German team to walk off with a new world's record

BY GRIFFITH BORGESON



Designer Mangham and mechanic Wilson button in driver Allen. These three were entire Texas crew.



Only an amateur, Stormy Mangham designed and built record-breaking bike.

Anyone will tell you that these days, in any kind of competition, it's the guy with the most dough that always wins. Whatever he needs he can buy—including brains. This is such a thoroughly accepted axiom of the twentieth century, especially where technology is involved, that it seems like flying in the face of nature when a little guy tries to compete with the big ones. This is what anyone in his right mind must have thought when three Texans in bib overalls challenged the biggest motorcycle manufacturer in the world, NSU WERKE AKTIENGESELLSCHAFT of Germany, and set the stage for what has been—so far—a three-round battle of wits and courage with the most dangerous sporting machines in the world: super-fast motorcycles.

The preliminaries to the Texan-German war began one day in May, 1954. Mangham, an American Airlines pilot who owns a little airport near Fort Worth, was passing the time of day with an old buddy from the Air Force. They were talking about speed.

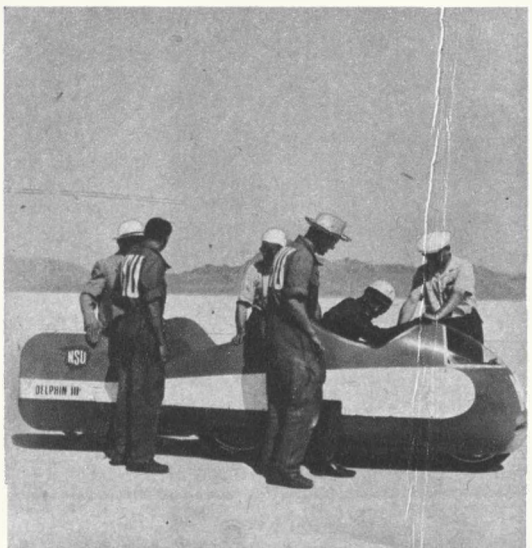
"Now you take motorcycles, for example," said Mangham's pal. "It's fantastic the kind of power and speed they can drag out of a tiny engine. Do you know what the absolute world record for motorcycles is? 180 mph! And that's with a little NSU 30-and-a-half cubic inch power plant! Now there, man, is a record that's going to stand for a while."

Mangham raised his eyebrows. "Hell you say," he said. "If I was going out after records that's the one I'd shoot for. Easiest one in existence to break."

If Mangham wanted a rise, he got it. For the next three hours subjects like frontal area, drag coefficient, center of pressure and yaw angle were kicked to death. But nobody's opinion got changed. Finally, with a tolerant smile, Mangham drawled, "You know, I'm not too busy right now. I think I might just build a streamliner and break that record myself."

Stormy is not a man given to idle boasting. That night he started the pencil work on a record machine. At this time he was 47 years old. He was no avid motorcyclist although he had bought his first bike in

For Bonneville run, NSU brought full staff of experts and two 'cycles, Dolphin (above) and Baumm machine.



Daredevil German Herz lost two of nine lives in Bonneville accidents.

1922 and still used one, a Triumph Thunderbird, to get around the airport. But he did have a long-standing interest in aerodynamics. During his tens of thousands of hours in the cockpits of old-time transports he had whiled away a lot of time experimenting with streamlined shapes. He'd whittle one in wood, attach it to a rod, and poke it out into the stream of air rushing past the plane. It was a poor man's wind tunnel, but a good one. He'd learned more about the drag and high-speed behavior of all kinds of streamlined forms than most engineers will ever know.

With this background Mangham was able to make a quick decision about the ideal shape to use. He drew it up, skipping the model stage entirely, and in a matter of weeks built full-scale molds for a Fiberglas body directly from his drawings. Stormy, a master of deadpan underplay, says, "Wasn't much to it. Just a simple aerodynamic problem. You take the width you can seat a man in and make it long enough to streamline the man properly, and you got it."

The key word, of course, is "properly." Actually, there are few things tougher than designing a good streamlined shell for a motorcycle. Building a car that will go 200 mph is tough enough because each mile-per-hour increase in speed causes unpredictable changes in the flow of air around the machine. With any untried streamlined shape you don't know what kind of behavior to expect at a certain speed until you actually get there. But a car is braced at four corners and even a sudden gust of cross-wind isn't likely to do more than nudge it off its course. A fast-moving motorcycle, though, balanced as it is on two tiny patches of rubber, is not only far more sensitive to cross-winds but also to disturbances in the air flow that its own shape and speed create. One small defect in streamlining, unnoticeable at 190 mph, can mean loss of control at 200 and if it does, you're probably dead. When you design a machine to beat the world's motorcycle record you want to have a rare and remarkable grasp of what you're doing. Stormy Mangham had this grasp.

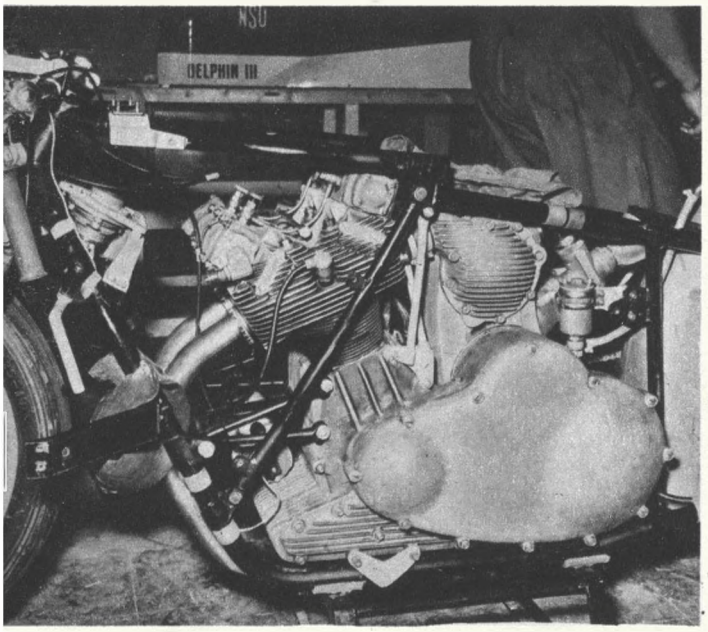
The shape he used did not resemble any conventional cycle. It looked rather like a long cigar that had been sat on. The curved sides trimmed to sharp edge at top and bottom. Nose and tail were shaped like wedges to cleave cleanly through the wind. Stormy could have made the shell even slimmer by making it round instead of elliptical, but he knew that wind eddies near the ground would become severely violent in the neighborhood of 200 mph. "With an elliptical shape," he says, "the wind doesn't have near as much chance to get hold of you."

Toward the end of August, 1954, he took the engine out of his "hack" Triumph, dropped it in the streamliner and headed for the annual speed trials at Bonneville for his first test run.

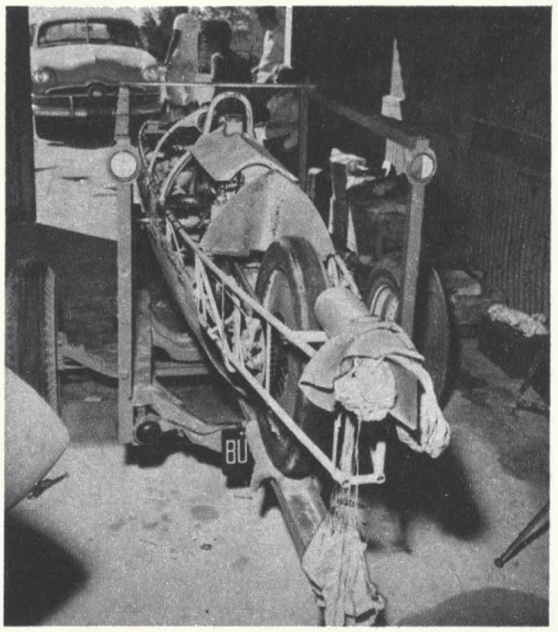
Mangham did not plan to break records—yet. What he wanted was to learn everything he could about the machine before he put a hot engine in it. But his runs gave him a hint of the effectiveness of his streamlining. With a sick engine firing on just one of its two cylinders, and running on mere gasoline instead of the more potent fuels generally used on the salt, he went through the timing traps at 138 mph. This was so clearly remarkable that a timing official, crediting the power plant instead of the body, asked, "Say, who built that engine for you?"

"Why, Mr. Triumph did," Mangham replied.

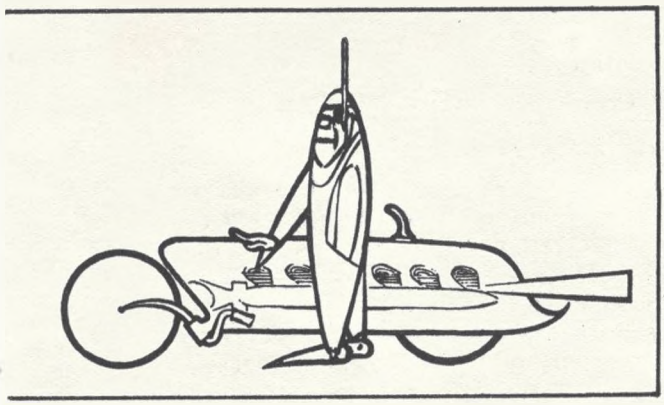
"Yeah, I understand that, but who built it *up* for you?"



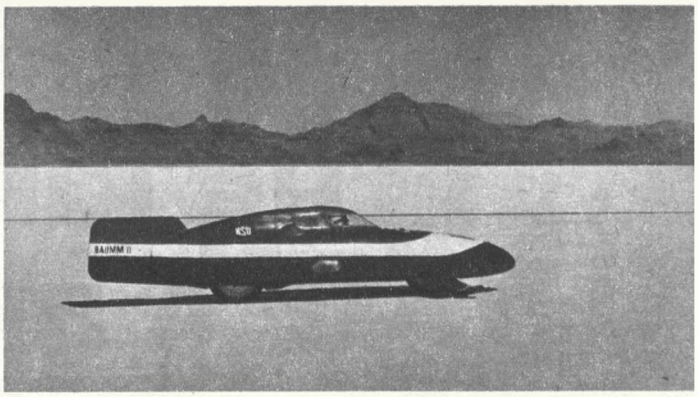
Supercharged power plant used by NSU for record runs develops 110 horsepower. Only eight of its kind exist.



Mangham's machine uses mass-produced engine, gets record speed from radical design. Parachutes are for braking.



Designer Baumm got his start drawing fantastic bikes in gag cartoons, later talked NSU into building one of them.



Baumm machine at start of record attempt. With Herz in cockpit, machine nosed over at 180 mph. Herz was unhurt.

"I don't know what you mean," said Mangham, winding up for a tall Texan answer to a silly question. "I've been pumpin' water for the cows with this little ole engine for the last couple of years. When I got this shell buttoned together I just pulled the engine loose and stuck it in."

When Mangham got back to Fort Worth he could pick his helpers from the best mechanics and riders in the big state of Texas. He chose Jack Wilson, service manager of a Fort Worth 'cycle shop, and Johnny Allen, a young and nerveless lightweight with a fine racing record. For nearly a year the little three-man team planned how they would attack the world's record and made constant shakedown runs on long, straight, back-country roads. And in August of '55, when the salt was dry, hard and ready again for racing, they were ready too.

They were still using a 40 cubic inch (650 cc) Triumph Thunderbird engine but this time it had been meticulously prepared for peak power output and it was running on racing fuel, not pump gas. They made dozens of trial runs, feeling their way out into speed ranges the machine had never approached before. The 'cycle still wasn't handling ideally by any means, but Allen's patience and courage were inexhaustible. Finally he was ready for the record try. And he hurled the plastic cigar through the AAA clocks for a two-way average of 193 mph.

This was faster than NSU's record, 13 mph faster than anyone had ever gone on two wheels. But it wasn't a record, the Texans eventually learned. Someone in the AAA, which was undergoing a confusing change in internal structure, had goofed. Allen's speed wasn't officially recognized. But the Texans couldn't have cared less. Official or not, they'd made their point and tossed out a challenge that the world couldn't ignore. Among the people who didn't ignore it and actually honored it were the directors of NSU, in Germany.

NSU is a big company and like many large, old corporations its policies are sometimes a contradictory mixture of daring and conservatism. On the one hand, they had always been willing to stake the prestige of their machines on racing and records, and the Texans' challenge needled them where it hurt. But on the other hand, they often moved slowly, cautiously, and sometimes unintelligently. Way back in '49, for example, they had been offered a design for a two-wheeled streamliner created by a German authority on aerodynamics, one Konig Fachsenfeld. NSU bought it, built it, but junked it before it had ever been ridden 10 feet because various "name" racing drivers objected to its oddball seating position and general layout. The machine, ironically, was nearly a dead-ringer for the one Mangham was to build five years later.

When, in 1951, NSU decided to make an attempt to take the absolute record, which had stood at 174 mph for 14 years, they did it with a far more conventional shell, a huge, hump-backed job with a big tail fin and a big opening through which the driver's head and shoulders protruded. The "Dolphin," as they named this uninspired, clumsy projectile, had a supercharged 30-and-a-half cubic inch (500 cc) engine which was [*Continued on page* 52]

NSU men measure driver in racing position to build smallest shell possible. Germany staked national prestige on race.

TRUE ADVENTURE

THE KING WHO ATE A REGIMENT

For 17 years the world's greatest cannibal happily roasted both friends and enemies. The life of this six-foot-six Fiji King was one long banquet until a gunboat gave him indigestion

By ERNEST S. DODGE

Early one morning in 1843, Thakombau, Prince of Mbau, son of Tanoa, King of all Fiji, stood at the helm of a war canoe surging through the sea toward battle on the mainland of Viti Levu. Behind him, just launched off log rollers into the Koro Sea, was part of his Mbau "navy," a dozen giant war canoes with sculptured prows, each loaded with 300 warriors, their bodies rippling under heavy slicks of copra oil.

Thakombau, and his father before him, had built up a war canoe "navy" to make their small island, Mbau, master of an island empire. Mbau, the one-mile round rocky, tropical island of 3000 natives was, under its ferocious chiefs, the ruler of the Fiji string of islands that stretched from the central Pacific clear northward to the Windward Islands.

However, it was not just the thought of bloody combat that filled the mind of the 26-year-old black-bearded giant. His mouth watered at the thought of something greater than mere victory. For Thakombau was a gourmand with a special taste and "long pig" was the specialty. The thing that delighted him most about the coming fray was the fact that every enemy who fell in battle would grace the victory feast tables. He smiled contentedly at the thought of his booty. Soon there would be a few more stones in his collection back at the Mbau palace. Each stone represented one "long pig," a human body roasted in its own juices that Thakombau had eaten.

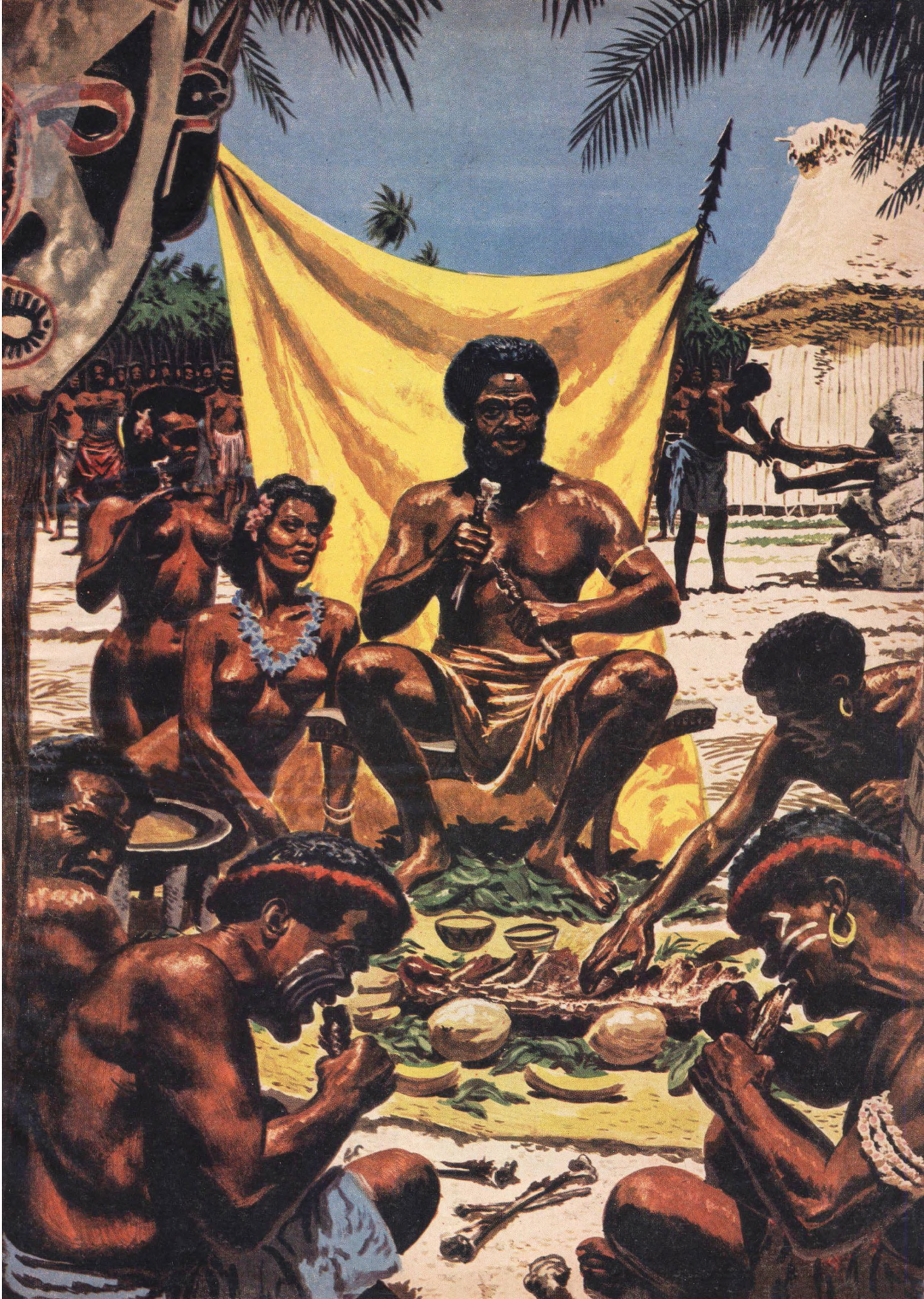
Thakombau the Great in his dietary twilight.

After the battle that day, Thakombau and his warriors returned to Mbau. Trailing his war boats, in long canoes brought along for that purpose, were the spoils of his rapid conquest of the mainland village. More than one hundred bodies—men, women, even infants—were piled on top of each other in a bloody indiscriminate heap, black legs and torsos jutting through the bodies from the bottom of the pile.

Thakombau puffed out his nude oily chest and smiled indulgently at the corpses being dragged ashore by Mbauian warriors. He turned proudly to a lieutenant. [*Continued on page* 92]

After a battle none outdid the voracious Fiji King at the "Long Pig" victory feasts. ▶

Illustrated by John McDermott



How To Dunk Danish Pastry

According to Greta Thysson it was in her native Denmark that dunking was invented. Doughnut dunkers are only imitators, and pretty uninteresting ones at that. Of course anyone can dunk a doughnut, but not everyone is equipped to dunk Danish pastry as Greta is

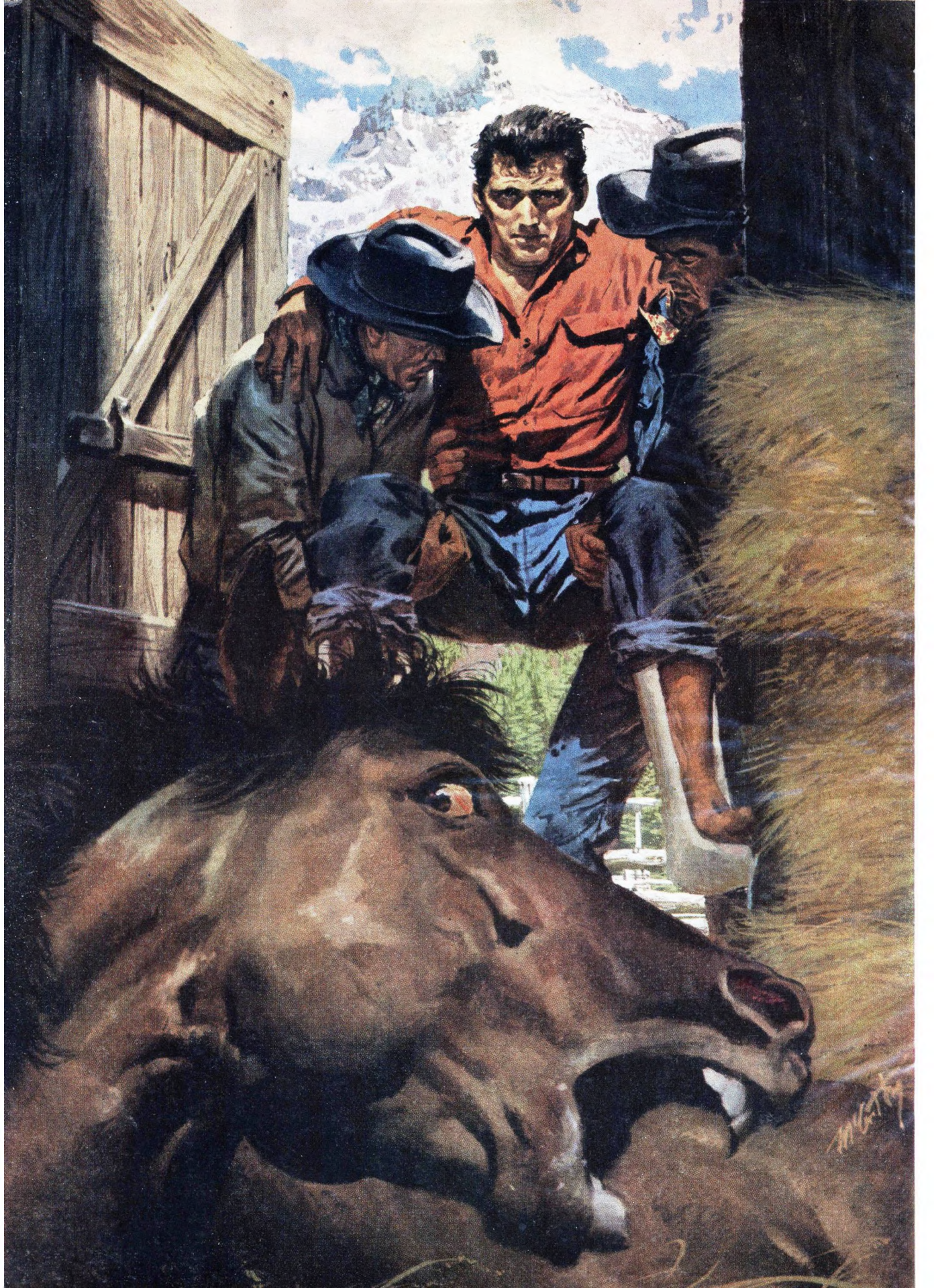
Photos by Russ Meyer of Globe

While spectators hold their breaths, Greta demonstrates approach to dunking.

And as you can plainly see, before you get your breath back, she'll be dunked.

And now the dunking. She raises one foot instead of pinkie, as doughnut dunkers do.

Previous pictures show dunking of Danish pastry with icing on—a nightie-like confection of sugar, spice and everything nice. Dunking dissolves the icing, as per above—which is why dunking is so popular in Denmark.



TRUE ADVENTURE

THIS COWBOY WOULDN'T STAY DEAD

The northern reaches of British Columbia are wild country that spawns the toughest kind of men. Yet even among these pioneers rugged Pan Phillips has become a living legend

BY RICHMOND P. HOBSON JR.

Late in January of 1948 a vicious Arctic wind bit at British Columbia's high interior plateau. Great drifts of snow that had piled up for many weeks on the rangelands of the Cariboo and Chilcotin countries powdered before the icy blast, forming a dense, swirling curtain. The mercury held steady at 40 below zero.

On the most remote cattle ranch on the North American continent, Floyd "Panhandle" Phillips, his wife Betty, a tall, clear-skinned girl with glossyblack hair, his stepson Willie, his tiny daughter Diana and a 15-year-old ranchhand named Shag Thompson were cut off from the outside world.

Their Home Ranch buildings were 210 miles from the town of Quesnel, but the Indian wagon trail that twisted its tortuous way through a 6,000-foot pass in the Itcha Mountains was now clogged with 20 feet of snow—an impassable barrier. Fifty miles south of the Home Ranch, on the other side of the mountains, were Pan's nearest neighbors, the Anahim Lake ranchers whose isolated layouts were tiny dots scattered across the unbroken wilderness.

There was one possibility of making a connection with the outside world in case of an emergency. This was a circuitous route around the western base of the Itcha and Algak ranges on an old seldom-used Indian trail, a snow-choked distance of some 75 miles to the Christenson Ranch. Thus, it was no small gamble that Pan was taking to isolate his family group from all contacts with the outside world for the six winter months.

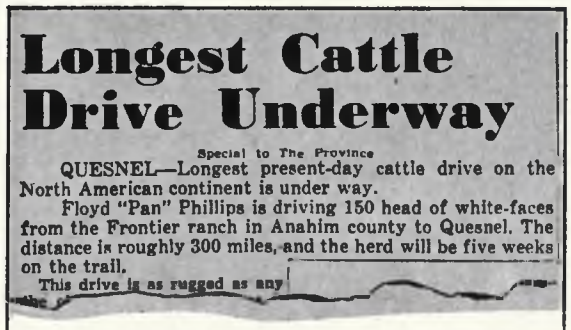
Feeding cattle in this north country is a rugged job. The animals must be fed every day no matter how haywire the weather. Waterholes must be opened, for a cow, unlike a horse, cannot wash down its hay with a few mouthfuls of snow.

Three miles from the ranch buildings 150 head of Hereford cows were wintering in a dense grove of spruce which provided excellent shelter from the wind. A deep narrow creek twisting through the tall evergreens provided water. A few yards from the creek, out on the edge of a big meadow were three large hay corrals with the fodder stacked high in them.

Every morning at daybreak Pan would arrive at the spruce grove with a team and sleigh, throw two loads of hay to the cattle, open up the waterholes, distribute a third load of hay for the calves, arriving back at the ranch by noon. His young ranchhand, Shag, took care of the wood and water end of the ranch job.

On the first day of the blizzard Pan found a two-year-old heifer hamstrung and half eaten by wolves. When he started for home, the snow was blowing so thick that he could barely see the heads and shoulders of his team. An hour later than usual, he arrived at the ranch, his high-bridged nose and cheekbones marble white and one hand frost-bitten through his glove. Betty, using a rag dipped in coal oil and some brisk rubbing, brought back his circulation.

But the next day, Pan was unable to buck his team and sleigh through the huge drifts at all. In places the snow



Longest Cattle Drive Underway

Special to The Province

QUESNEL—Longest present-day cattle drive on the North American continent is under way.

Floyd "Pan" Phillips is driving 150 head of white-faces from the Frontier ranch in Anahim county to Quesnel. The distance is roughly 300 miles, and the herd will be five weeks on the trail.

This drive is as rugged as any

Canadian newspapers hailed Pan Phillips' epic cattle drive, but only his old friends and neighbors like rancher-writer Rich Hobson knew the dramatic background of the story—a story of incredible danger and heroism which is told here for the first time. Hobson is the author of the book Grass Beyond the Mountains.

Only Pan could help the mare give birth. He made them cut him loose from his traction rig and carry him to the barn.

Illustrated by Frank McCarthy

PAN PHILLIPS' RECORD-BREAKING CATTLE DRIVE

Longest, toughest cattle drive in America runs into snow as Pan Phillips' 65-head herd winds up 200-mile trek to town.

had piled up higher than the top of a tall Indian's head. The only way he could get to the herd of cows at the spruce grove would be to saddle up a strong horse and, dodging the worst snow drifts, plunge through to the stockyards. There he would set several large wolf traps around the carcass of the dead heifer. There was a good chance that the wolves might come back to feed on their kill.

Panhandle picked Wang Leather for the job, a 1,300-pound, short-coupled black stallion. Wang Leather was half Percheron and half Thoroughbred, a six-year-old powerhouse that Pan had only ridden three times, once in the breaking corral, and twice in the open meadow after the first heavy snowstorm of the season. Wang Leather was a tough horse to handle under the best conditions, and Betty, who knew that Pan liked to take chances, tried to talk him out of going.

"Hell, Betty," Pan said, "there's just nothin' to it at all. Everything's easy. There never was a better time to give Wang Leather a workout. He'll be plumb broke and gentle when he gets back out of those snowdrifts. Besides I don't figure we got another horse in the yard that could break trail across that meadow to those cows."

A few minutes later Betty and the two children, looking out the window, saw Pan and Wang Leather appear out of the grey haze. The big black was snorting and, his neck

Wife Betty drives buckboard carrying supplies, infant, over rugged trails, mountain passes. Older kids ride horses.

No roads lead to Home Ranch—supplies like hayrake wheels are packed in. Family makes most of what it needs.

bowed, he plunged through the drifts that ringed the house. He was not bucking and Betty could see the dynamic power of the animal as he gracefully ploughed shoulder deep through the first drift. Then man and horse were gone.

The morning hours dragged by slowly. Betty went about her chores occasionally glancing out the windows at the storm. When she gave Shag, Willie and Diana lunch there was little talk around the table.

The children turned in for their afternoon nap and Shag headed for the barn. Another hour went by. Betty looked at the clock, turned on the radio and sat down in the home-made rocking chair staring intently into the dying storm.

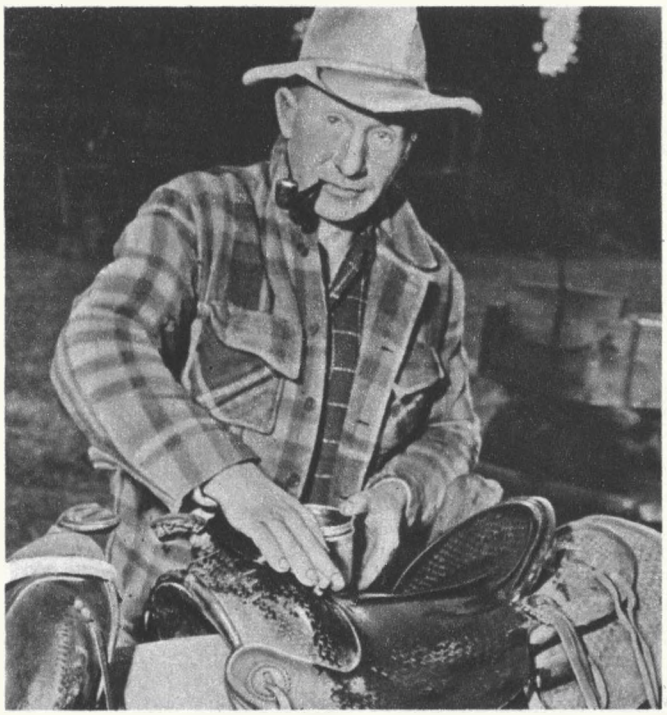
At 2:30 Betty felt a mounting panic. It would be dark in two hours. She jumped up from the chair when Shag crashed through the front door, his eyebrows and vague chin whiskers matted white with frost.

There was a wild look in the boy's eyes as he stood there, his legs wide apart, his breath coming in gasps. He steadied himself, then yelled into the silent house.

"Wang Leather's back. Back at the barn. Wang Leather's back with his saddle on, Pan's saddle. It's pounded all to hell!"

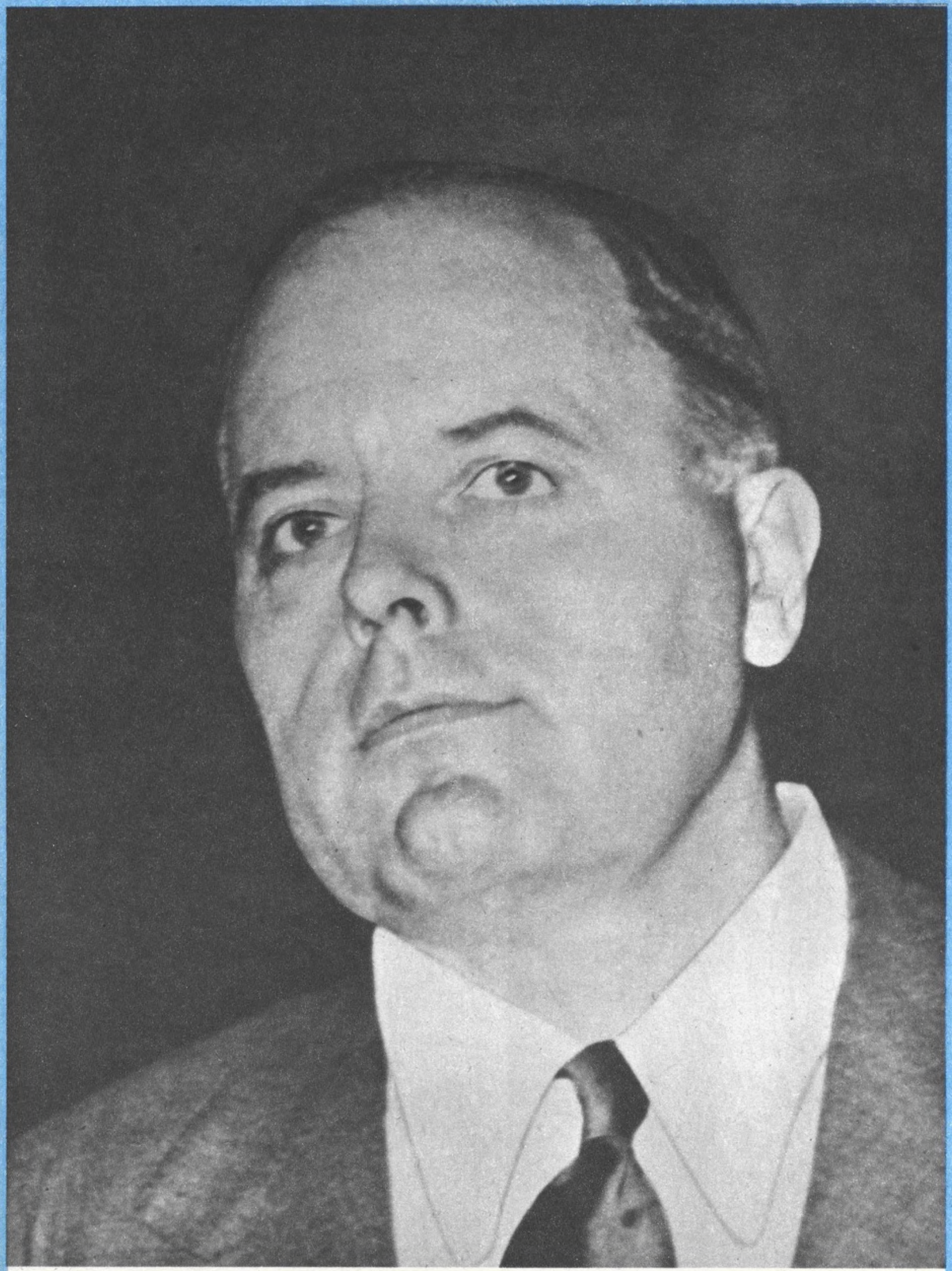
When Pan draped and tied the four heavy-jawed wolf traps and chains over his saddle horn he gave little thought to what might happen should his saddle strings holding them down to the saddle break or come loose. He talked softly to the big stallion for a moment or two, then quick as lightning he snapped into the saddle, at the same time cheeking the horse off balance and turning him in a circle. As he spun Wang Leather around and around he felt the hump go out of the horse's back. Now he swung the horse around in the opposite direction and yelled at Shag to open the gate. Wang Leather, still confused from the circling business, went snorting through the gate and into the storm.

At first the going wasn't too bad. But a mile from the ranch Pan was confronted with several high drifts of snow that ran like ridges across the [*Continued on page* 87]



Tophand Phillips greases saddle for drive. Doctors said he'd never ride again. He recovered, rides as much as ever.

Coffee on the trail. With cattle moving only 10 miles a day, drive takes 20 days, with winter blizzards never far behind.



John G. "Steve" Broady once King of the Wiretappers. In the last year he's known nothing but trouble.

His ear made him a mint:

HE BUGGED THE BIGGEST CITY

Steve Broady made a science of tapping New York telephones and with the Astors, Rockefellers, Chiang Kai Shek and Uncle Sam paying him, he was riding high. Then he tapped the wrong number

BY MICK NATHANSON

If all the fictional Private Eyes created by Mickey Spillane and Erle Stanley Gardner were rolled into one and lumped with the gumshoe creations of every other make-believe mystery writer, it is just possible that their adventures might come close to the exploits of a real-life, 6′ 3″, 220-lb. colossus named John George (Steve) Broady, the best-paid private Sherlock in the world.

In a tough, dangerous business where the methods and ground rules are not laid out for you, Steve Broady, operating an international network out of his New York headquarters, developed his own techniques and made his own rules. As the brains behind a squad of slick professional wire-tappers, he became in order Private Eye, Big Ear, Biggest Ear.

At his peak, he was pulling in $250,000 to $300,000 a year; had a luxurious eight-room apartment at 110 Riverside Drive, where he lived with his wife and two daughters; maintained a luxurious penthouse on East 65th Street for "entertaining," and ran two separate business offices.

He's worked for millionaires named Astor, Vanderbilt, Rockefeller and Ryan; the biggest law firms in the country; industrial giants of the stature of the American Locomotive Corporation and the Charles Pfizer pharmaceutical house; local, state and the federal government in the U. S.; and the Chinese government of Chiang-Kai-Shek.

To reach the top, to learn more, to hear more, and to rate the fees he got, he had to step on a lot of toes, travel the razor's edge between legality and illegality—and break the law. He was singularly cock-sure of himself. He barged ahead where others would have tempered their activities—sure his mine of tapped information would go on forever.

It didn't.

On February 10, 1955, Walter Asmann, a "frame" man employed by the New York Telephone Company at the East 56th Street Exchange, nervously approached a co-worker, Carl Ruh, a telephone tester, and said, "The Supervisor and another guy are tracing out the lines we've been tapping. There may be nothing to worry about. I figure it's a quality check for loose connections."

Ruh answered, "All right. Then leave it the way it is."

It was a fatal decision.

The next day, two city cops and two telephone cops traced the unauthorized wires into a listening post on East 55th Street occupied by a Warren Shannon, a friend of Ruh's, and found tapping and recording equipment.

Ruh, Asmann and Shannon were arrested and made full confessions of their roles as key stooges in a gigantic wire-tapping conspiracy, and identified Steve Broady as the man who was paying them to eaves-drop illegally.

For Frank Hogan, the New York District Attorney, this meant a second chance [*Continued on page* 61]

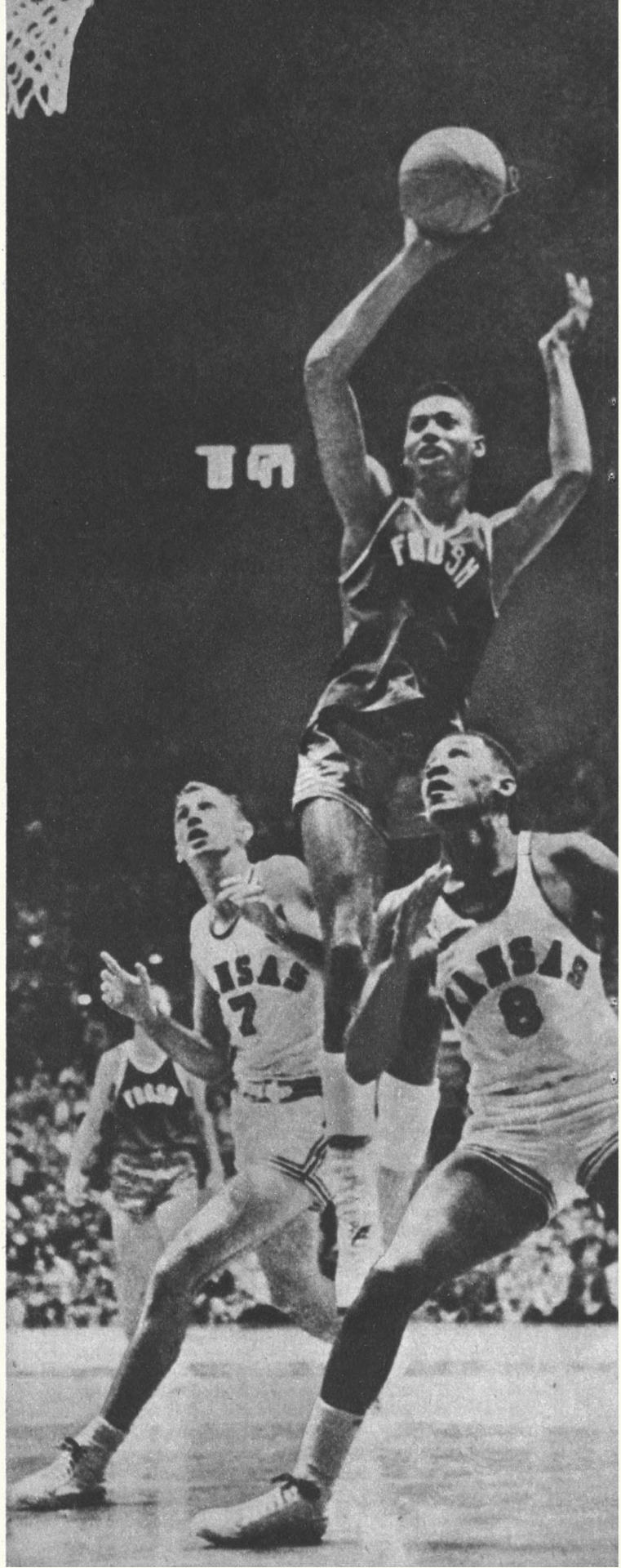
EX-CHAMP Tunney was aided by Broady when a girl yelled, "Foul!"

EX-STRIPPER Ann Corio didn't know Broady kept tabs on her.

WILT the STILT-

basketball's biggest time bomb

Two years ago almost any basketball college would've traded its prexy and dean for Wilt the Stilt. But that was before the skeletons started to rattle in the big center's closet



by Milton Gross

Of all the amazing features of Wilt Chamberlain's already fabulous career, one of the most amazing is his effect on sportswriters who have seen him play.

To a man every one of them agrees that the seven-foot Negro star has the ability to be the greatest college basketball player who ever lived. Considering that controversy is the lifebreath of their trade, this agreement is a remarkable thing. Just as remarkable is the agreement among the same writers that Wilt Chamberlain may not be around the college picture long enough to win the "greatest ever" title. They, and many fans, are all too aware that in Chamberlain's past is a time bomb that may knock him clear out of the college league, or blow up the college basketball system we know today.

The limelight and the pressure that surrounds it are nothing new to Chamberlain. For the past five years, since his sophomore year at Philadelphia's Overbrook High, he's been the most talked-about and whispered-about player in basketball.

There, in three varsity seasons, Chamberlain scored 2,252 points, to smash by more than 100 points the all-time four-year scoring record set by Tom Gola as a Philadelphia high school player. Gola went on to LaSalle College to become a unanimous All-America selection for three years and then to the Philadelphia Warriors and was an immediate sensation as a pro.

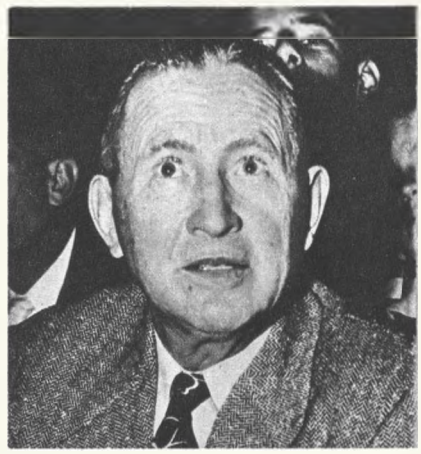
However, for all of Gola's accomplishments, he could scarcely overshadow Chamberlain accomplishments as a high school boy. By the time he reached his senior year in school, Chamberlain's talent had already been placed in an unprecedented perspective.

While Stilt still had not decided which of the colleges palpitating after him he would provide his next nesting place, his name topped the list of the Philadelphia Warriors' draft selectees in the annual N.B.A. player lottery. The professional league rewrote its by-laws to stake a somewhat shaky claim to Chamberlain. Prior to this astonishing decision, teams claimed only college seniors. In the rare instances when others were claimed, they were players who had dropped out of college for one reason or other, but they could not actually be signed until their college class had been graduated. And Chamberlain's class hadn't even started its freshman year.

Chamberlain, though, was so staggering a prospect that Eddie Gottlieb, the owner-coach of the Warriors, was willing to wait four years and forego an immediately employable draft choice to get first rights to Chamberlain.

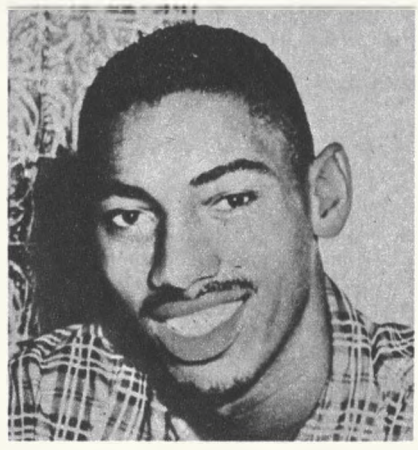
As startling as that was, league officials and coaches could understand Gottlieb's sense of anticipation. They estimated that even as a high school senior, Chamberlain was as effective as George Mikan, the all-time professional high-scoring champion.

Playing against other high school boys, Chamberlain's opposition naturally wasn't too tough, but the way he took over any game in which he played indicated



PHOG ALLEN, Kansas's ex-coach yelled "Plot!" at charge that Wilt, using . . . .

PHONY name, had played pro ball in Maryland—as reported by editor Kegg while . . . .



PHENOM Wilt changed his usual "no comment" line to say, "I've never been there."

he was the outstanding prospect of all time. He did unbelievable things with a basketball, including stuffing it through the mouth of the goal with either hand, backwards or forwards. He spent his last two high school summers bell-hopping in a Catskill mountain resort at Monticello, N. Y. which had several professional players on its staff, and in games against such pros as Neil Johnston of the Warriors, the N.B.A. scoring leader, it was difficult to tell which was the high-school boy.

* * * * *

"I guess I've got to say he's the best I've ever seen."—Wilbur Stalcup, basketball coach, Missouri U.

* * * * *

Red Auerbach, coach of the Boston Celtics who is athletic director at the summer resort, estimated, "There's nothing Chamberlain has to be taught. Right now he can step into the pros and tear the league apart. What he'll do in college will be inhuman."

Under such circumstances it is understandable why Chamberlain's reputation grew to the extent that no player in history was more sordidly solicited or persistently pursued by college recruiters. Their clairvoyance was amazing. They began tempting Wilt when he was a sophomore.

By August of 1955, when it was announced that Chamberlain had decided to enter Kansas, he had received more than 150 cash-on-the-barrelhead offers. They ranged from straight money handouts to money-in-escrow deals, which could be picked up after four years. They included nonexistent jobs for which Chamberlain's hardest work would be stooping to pick up a $100-a-week check and assurances of future employment for himself, his father, six sisters and two brothers.

The recruitment movement was historic. He averaged nine inquiries a day. He made at least 13 expense-free trips by plane to look over campus facilities at such widespread institutions as Indiana, Michigan State, Penn State, Illinois, Iowa, Dayton, Cincinnati, and Kansas. The last he visited at least twice, once with Cecil Mosenson, his high school

* * * * *

"I feel sorry for the Stilt when he enters the N. B. A. (National Basketball Association—Ed) four years from now. He'll have to take a cut in salary."—Sportswriter Leonard Lewin, N. Y. *Daily Mirror*.

* * * * *

coach. He was visited, in turn, in Philadelphia by Forrest C. (Phog) Allen, the veteran Kansas Coach (who reached the mandatory retirement age last season and gave way to his assistant, Dick Harp). Rumors were current in Philadelphia that inducements, usually in the form of an assistant coach's job at a fat salary, were offered to Mosenson if he could convince Chamberlain to accept the right offer.

It reached the stage where the recruitment reports finally caught the attention of the National Collegiate Athletic Association, governing body of collegiate sports, and an investigator was dispatched to Chamberlain's Philadelphia home to question the boy.

The NCAA investigator came away without any information that would now jeopardize Chamberlain's eligibility for varsity competition, but the reports persisted that the going price for The Stilt set a new top in basketball's flesh mart.

While he still had a year of high school basketball remaining, Chamberlain was approached by a scout for an independent midwest college. The scout is said to have offered Wilt a summer job for $100 a week, aware that all he would be buying was the promise of Chamberlain's future *consideration* for his college. Just before The Stilt settled on Kansas, a Big Ten recruiter reportedly made a flat offer of $20,000 for his collegiate services.

In his senior year, Chamberlain also listened to a singular sales talk by an influential alumnus of Oklahoma who said he was prepared to make the greatest concession imaginable for the Southwest. The alumnus said it could be arranged for Chamberlain to become the first Negro to play on the basketball team at Oklahoma U.

Even some members of the Ivy League were said to be willing to let their halos down. As the field narrowed, Chamberlain expressed an interest in the University of Pennsylvania and Cornell. Another Ivy coach, hearing of Chamberlain's interest in Penn and Penn's in him, visited Philadelphia to discourage the Quakers from making a firm pitch to Wilt. He feared Chamberlain would wreck competition among the weakest, but most selective, league

* * * * *

"Chamberlain will score 130 points some night and the other coach will lose his job. There might be somebody in the penitentiary who can handle him, but I guarantee you there is nobody in college."—Frank McGuire, basketball coach, North Carolina U.

* * * * *

in the country. He also said that the Ivies would never be able to explain properly how one of its members had succeeded in saving The Stilt from the gold-minted nationwide dragnet that had been spread out for him.

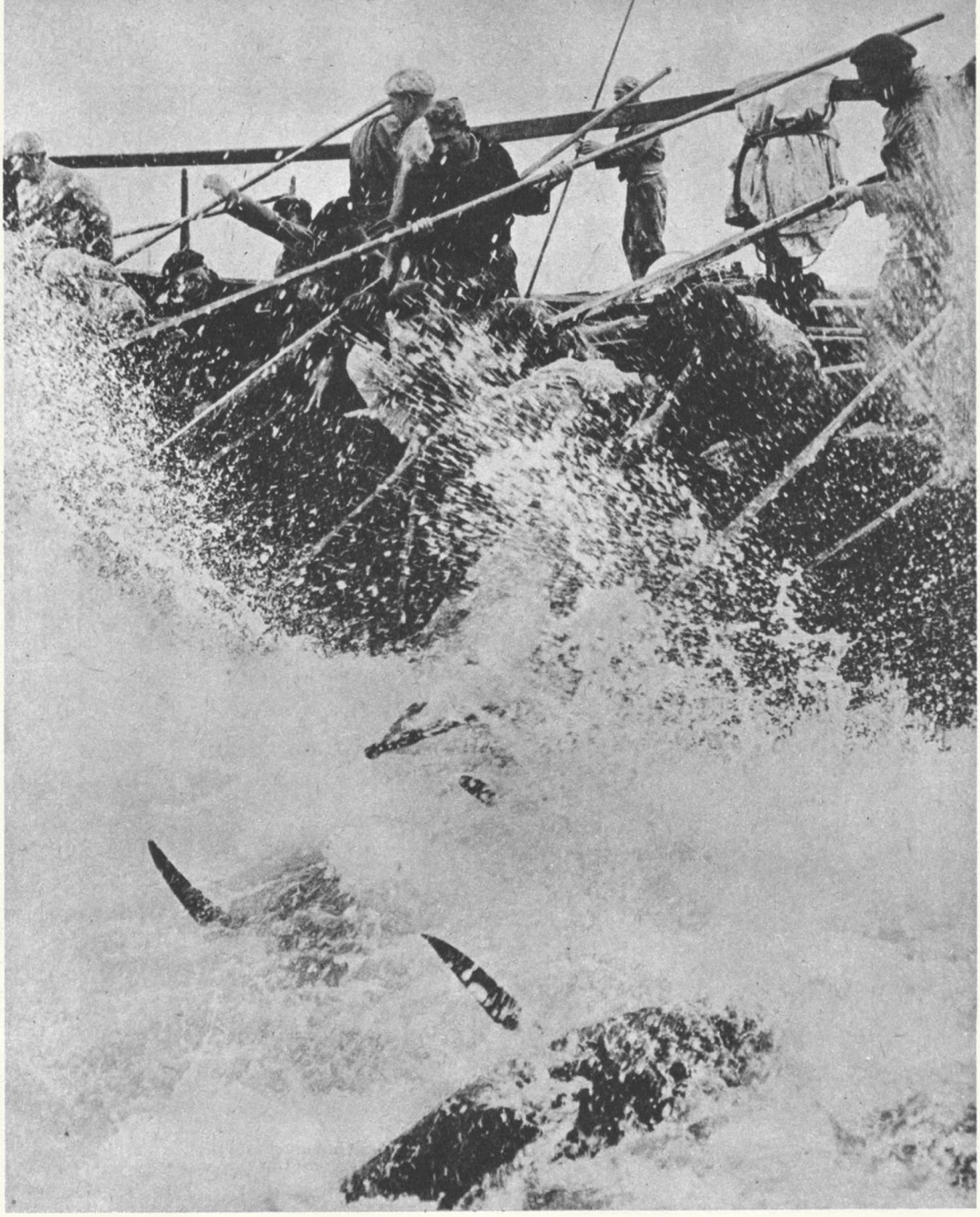
Kansas, of course, was not so antiseptically concerned. According to university authorities, disdainfully disregarding snickers from those who had tried and failed to land the Stilt, all Chamberlain would get at Kansas was B.R.T. —the bare subsistence minimum approved by the NCAA. Spelled out this means board, room, tuition, books and $15 a month. ("For laundry, don't you know," said Phog Allen, whose legendary career at Kansas certainly was climaxed by the capture of Chamberlain.)

Such was Allen's explanation to me when I called him soon after Chamberlain decided to choose Kansas. I asked Allen to comment on the various reports that The Stilt had struck it rich in basketball and to offer his opinion why Chamberlain had wandered so far from home for his college education.

"I was the most surprised person in the world when the boy called me to say he had decided to come here with us," Allen said. "We used our strong Negro alumni to interest the boy in coming with us and I imagine their arguments were persuasive. So far as I know the boy is getting the same grant-in-aid that other needy boys receive who qualify."

I asked Allen to comment on the report that $100 a week will be deposited in a bank, with Chamberlain getting the sum after spending four years at the university.

"That's a lot of money, I'd say," Allen said, "but I don't know anything about that. You hear a lot of rumors all over, but all those rumors don't materialize. Some may be true. Some not. I don't know [*Continued on page* 99]



Caught in "tonnara," terrified tuna fight so hard they sometimes knock each other out.

Where the Big Ones Don't Get Away

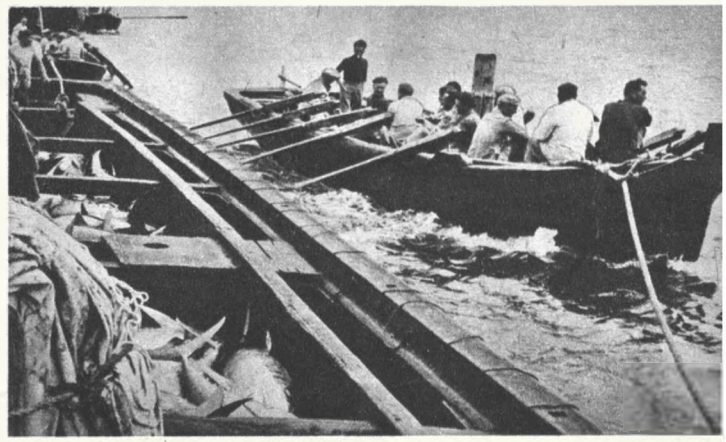
Some of the tuna they catch weigh 1,000 pounds but when the canny fishermen of Favignana get them into the "tonnara," they have no more chance than a mackerel

For the killing men form teams of eight men to pull the tuna out of the net and onto deck . . .

Photos by
RENE BURRI

. . . where, the fight torn out of it, it dies—another unfortunate victim of misguided love.

On the island of Favignana, off the west coast of Sicily, no one ever talks about the one that got away because the fish never get away. The reason they don't is that, the local fishermen have the biggest "tonnara" (tuna net) in the Mediterranean and the tuna they go after are all blinded by love. On their way south to spawn, the tuna are observed from a glass-bottomed boat. When a worthwhile number of them is in the death chamber of the net, men working in two big boats and many small boats close the trap. The net is then lifted and the tuna are loaded into the big boats. When the net is empty of fish, the men jump into the rectangular area for a swim. Then the net is lowered to the sea floor (cork floats hold up rim of net) the fishermen turn towards port and the tuna head for the cannery. ●



After last phase is finished, small boats and fish-lined barge start trip back to island, over a mile away from the net.

Back at the factory, the tuna are hoisted onto the deck where they'll be cut up for boiling and canning.

Beginning of the end. As severed head is worthless to factory owner, workers are allowed to keep them.

As young man, Musica had police record. As Coster, right, he was president of giant drug firm McKesson and Robbins.

The Millionaire Genius of Swindle

Four times he made his million—legitimately. Yet he was not content unless he was figuring the angles on making more. His last and greatest swindle made history

BY ANDREW HECHT

The treasurer of the world's third largest drug company studied the evidence. Though he had dug it up himself, he simply couldn't believe it. Before his eyes were the figures showing that his boss and long-time friend, F. Donald Coster, president of McKesson & Robbins, Inc., was probably the world's biggest swindler. The books showed assets of $18,000,000—five warehouses filled with precious crude drugs and huge bank accounts—which did not exist.

What was a lot more unbelievable, however, were the things treasurer Julian F. Thompson did *not* know about F. Donald Coster. Who would have believed it possible that an ex-convict and fugitive from justice, an uneducated Italian immigrant, could pass himself off as a Ph. D. and M. D., worm his way into the presidency of a giant drug firm doing $170 million a year business and become a pillar of Connecticut society—all the while diverting millions into his own pockets, undetected.

It took a lot of brains to accomplish all this, brains worthy of a far better cause. F. Donald Coster actually built four huge fortunes that were quite legit at first. But each time something clicked in his twisted mind, and drove

him to swindling maneuvers that became his undoing. He was a brilliant businessman who could have become extremely wealthy if he had traveled a road within the letter of the law, had only he resisted the temptation to steal.

Nor could anybody tell the great F. Donald Coster to go straight, not even Mamma, his inspiration and closest companion in crime.

"What's the matter with you, son?" she chided him once, trying to stop him from going into a deal she disapproved.

"I guess I am just money mad," he said with a grin.

The financial wizard's real name was Phillip Musica, and he ran through a long string of crimes and quite a list of aliases before he arrived at the exalted name and position of F. Donald Coster who rated a long listing in the 1938 edition of *Who's Who in America* (see list, lower right).

The editors of *Who's Who,* as is their custom, took the celebrity's word for the details of his listing. In this case, all of the strictly biographical data were faked, although Phillip Musica had a talent for falsifying official records and a superficial check would have verified most of his statements. Musica spent, for example, quite a bit of money planting a phony birth certificate of himself in Washington—and a lot more for removing from official files as much of his criminal record as his agents could get hold of.

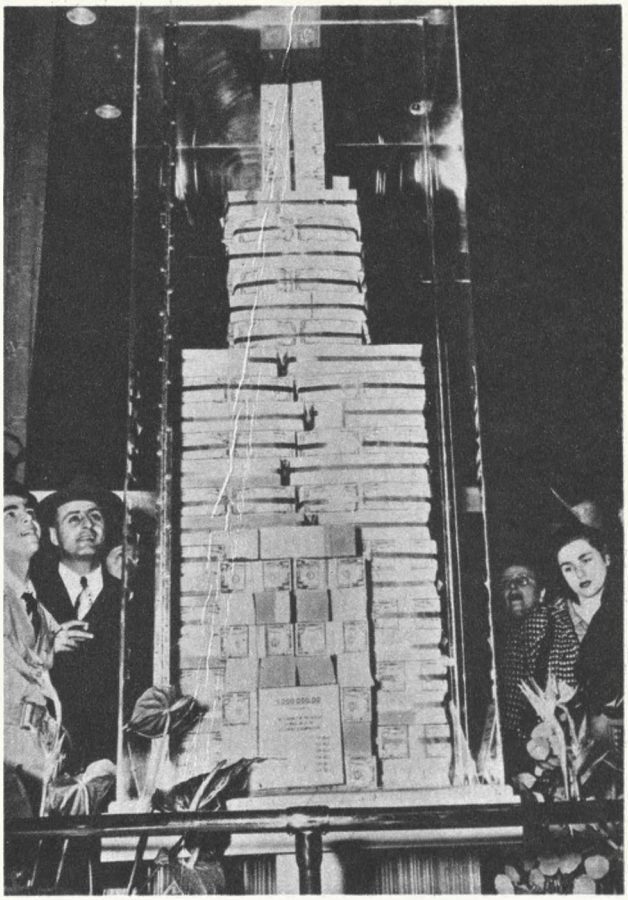
Phillip Musica was six years old when he arrived on these shores in 1883 from Naples with his parents, Antonio and Assunta Musica. His father was a barber who left his native Italy because his wife insisted on moving to the "Land of Opportunity." When Assunta found out that Mulberry Street in New York's "Little Italy" was not paved with money, she was bitterly disappointed. A few years later when the first opportunity came along to make a dishonest buck she was all for it. And as time went on, she became a real businesswoman, single-handedly swinging a couple of spurious deals back in Italy, involving millions of lire.

In the meantime, however, Antonio began barbering. Assunta bore him three more sons and two daughters; and Phillip went to school. He was a brilliant child who soon lost patience with school because the other children were slower. By the time he was 16, Phillip quit school to assist his mother at the little grocery store she had started next to the barbershop.

It was Phillip's idea to specialize in importing cheese and salami from Italy. Business was so good that within a year he persuaded his father to give up the barbershop and concentrate on cheese. A. Musica & Son came into existence and forged steadily ahead. By 1907 they could afford to buy a manison in Brooklyn's Bay Ridge section.

It was around this time that Phillip, now 30, swung himself into position as head of the family. The custom duty on imported cheese was high, and like many a businessman, Phillip got to thinking about how much more cheese he could sell if the duty were lower. Unlike other businessman, he decided to do something about it, namely, find himself a customs agent who could be bribed to charge duty for only 20 per cent of the cheese imported. Such an official was not hard to find.

By underselling their competitors, the Musica family was now making big money—all thanks to Phillip. Like a tiger who has tasted blood, Phillip became intoxicated by the feel of money. He bought expensive clothes, was a regular in the city's best cafes and restaurants, hung around stage doors to pick up chorus girls and was generally quite a man about town. Although he was successful with women,



This pile of money is $1,000,000. Pile representing what Musica stole on last job alone would be 3½ times as high.

Woburn Pl., London, W. C. 1, Eng.

COSTER, FRANK DONALD:
Pres., McKesson & Robbins, Inc.; b. May 12, 1884, Washington, D. C.; s. Frank Donald and Marie (Girard) Coster; ed. Univ. of Heidelberg, Ph. D., 1909, M. D., 1911; m. Carol Jenkins Schieffelin, May 1, 1921. M. D. in New York City, July 1, 1912. Pres., Girard & Co., Inc., Jan. 1, 1914-Nov. 10, 1926. Pres., McKesson & Robbins, Inc., Nov. 10, 1926 to date. Pres. and Dir.: McKesson & Robbins, Inc. (Md.); McKesson & Robbins, Ltd. (Montreal, Can.); McKesson & Robbins, Ltd. (London, Eng.). Dir.: Bridgeport (Conn.) Trust Co.; Hunter Baltimore Rye Distillery, Inc., Baltimore, Md. Clubs: N. Y. Yacht, Bankers (N. Y.); Brooklawn Country (Bridgeport, Conn.); Black Rock Yacht (Bridgeport); University (Bridgeport). Hobby: Sailing. Res.: Fairfield, Conn. Office: Bridgeport, Conn.

COSTIKYAN, S. KENT:

COTES, HAROLD
Mng. Dir., Bri
Address: 15 King

COTES, MERVIN
Vice-Pres., Mo
1899, Peoria, I
Cotes; ed. Univ.
1923; ch., Cynth
Dist. Sales Mgr.,
25. Pres., Co.
dale, Fla., 192
Justor Corp., 19
1928-32. Vice-P
Motor Wheel Cor
Dir. and Mem.
Res.: 443 Clifton
Lansing, Mich.

COTTERELL, WI
Pres., Dollar
Nov. 25, 1871.
s. John and Mary

Musica-Coster's entry in *Who's Who,* written by himself, shows business, professional background, is all phony.

Socialite-businessman Julius F. Thompson got Musica started in business, was later forced to expose him as crook.

his short stature—he was only 5 feet 8 inches—constantly bothered him until he found a shoemaker who provided him with "elevator" shoes that added two inches to his height. Phillip wore his hair closely cropped and had burning, dark eyes. His first mug shots, taken in 1909, bear a remarkable resemblance to Mussolini.

Phillip's salary was not enough to finance his escapades. He thought nothing of regularly double-crossing his father by exaggerating the amount of the payoff to the customs agent. He got away with it, and the firm of A. Musica & Son got away with its customs fraud. It was the sudden wealth displayed by the customs agent that aroused suspicion among his colleagues. Suddenly Phillip and his father were arrested.

Whether it was love for his father, whether he wanted to hug the center of the stage, or whether he was completely sure that his friends would spring him, Phillip pleaded guilty and assumed sole responsibility for bribing the customs agent. There was no evidence against Antonio who went free. Phillip was sentenced to 1 year in prison and $5,000.

But less than five and a half months after entering Auburn State Prison, which at that time accepted federal prisoners, Phillip received a full Presidential pardon from William Howard Taft. It was never revealed who his powerful backers were, but over the years Phillip always seemed to establish political contacts with the right people.

"It was all a misunderstanding," Musica told his friends after his release. There was certainly no indication that the experience cooled off his spirits in the slightest. On the contrary, it took him only a month or two to figure out a new business and plunge right into it.

Musica, coming from a family of barbers, noticed the stylish "coiffures" women were wearing, piling "switches" of human hair on top of their own, to build up their crowning glory, and padding their hair with "rats." He figured that the human hair business must be good and he was right. Top-quality "switches," carefully hand-made from the silkiest tresses of some remote Chinese or Italian maiden, brought as much as $1,000.

Italy was one of the principal sources of human hair and the Musica family started importing it in rapidly mounting quantities. Their new firm, the United States Hair Company, was coining money. The Musicas moved to a new, larger mansion, complete with riding stables, on Shore Road in Brooklyn.

Phillip again was syphoning the cream off of the business for himself. He had a room in the new Musica residence, but he also kept a suite at the Knickerbocker Hotel on Broadway, where he entertained lavishly. To his sartorial getup he added spats, diamond stickpins and canary-yellow kid gloves. No longer was he after mere chorus girls. It was the diva—the opera star—now who commanded his attentions. A stage-struck music lover like many Italians, he befriended several opera stars, especially the great Enrico Caruso.

Musica was leading a pleasant life and heading up a good business with every prospect of rich future returns. He had only to keep it legitimate. Then suddenly something clicked in his mind and his criminal trait took over. Helped by his mother, he embarked on an amazing swindle maneuver.

Mamma went off to Italy, accompanied by son Robert, where she bought crates and crates of worthless barbershop sweepings, neatly camouflaged on top with a thin layer of long hair. She shipped the hair to New York, then called on Italian banks, showing them orders from the U. S. Hair Company, and the bills of lading, proving the merchandise was on its way. With these papers she managed to get loans and advance payments from the Italians totalling more than a million dollars.

It looked like the plot would work and Musica dispatched brothers Arthur and George and several trusted friends to Hong Kong, London, the various Balkan capitals and other key points, to pull the same trick on local banks. When he felt that this approach was just about played out, he pulled his big coup in New York.

Musica called on the Bank of the Manhattan Company, where he was well known, showed them a bill of lading covering a shipment of several hundred cases of hair valued at almost $400,000, which had just arrived in New York and asked for a loan against this collaterial. The bank would give him only $25,000, but Musica took it, in cash. Then he visited several other banks, collecting a total of $160,000 against the same shipment.

Meanwhile a clerk at the first bank noticed that some figures in the invoice had been altered. Word got around in banking circles, and master detective William J. Burns was called in to look into the matter. His operatives opened a case of hair on the pier of the Fabre Line, then another, and another, finding all of them filled with worthless hair sweepings. Detectives were rushed to the Musica home and the offices of the U. S. Hair Company, both of which were deserted. The entire Musica family had disappeared, taking the banks' cash with them, plus a lot of jewelry they obtained in the last minute and hadn't paid for.

William J. Burns lived up to his reputation when he

noticed a book on the subject of extradition in Musica's office. He further noted that the chapter dealing with Honduras was well-thumbed, and that Honduras happened to have no extradition treaty with the U. S. He almost said, "Simple, my dear Watson!" when he found out that in two days the steamer Heredia was due to sail from New Orleans to Honduras. Although booked under false names, the Musicas were easily found aboard and taken into custody.

Once again Musica assumed all responsibility, insisting that his father, his brothers George and Arthur, and his two sisters knew nothing about the missing hair and the sources of the jewelry, but were merely setting out for a vacation. Mamma and brother Robert were still in Italy, busily hiding their loot. Although the others, too were obviously guilty, the D. A. seemed satisfied with Musica's plea, for reasons that were soon clear.

Musica spent three years in the Tombs without being sentenced. He functioned all this time as a stool pigeon. He helped the D. A. crack several tough cases, and actually persuaded one prisoner to plead guilty to murder claiming insanity, when he actually was guilty only of second-degree murder. The man got the chair.

In 1916 Musica, because of his stooling, received a suspended sentence for the hair swindle. He was put on probation and got a job as under-cover investigator on the District Attorney's staff, using the name William Johnson. But here again, that criminal mind was not satisfied with doing a straight job. Musica tried to force confessions from suspects, fabricated evidence and finally got involved in perjury.

He played a key role in the notorious "chicken murder" case and almost sent an innocent man to the chair. Chicken wholesaler Barnet Baff had been murdered in 1914 in the course of a price war. Two gunmen were convicted of the murder, and in 1916 their appeal was pending, when Musica turned up a witness who swore that he overheard gangster Joseph Cohen, "King of the Chicken Pullers," hiring two thugs to kill Baff. The two defendants were set free, and in their place Cohen was convicted and sentenced to the chair. He appealed, and received eight reprives from Gov. Alfred E. Smith, one of them only seven minutes before execution.

During the investigation of the Cohen case, it was revealed that "William Johnson" was ex-convict Phillip Musica. That finished Musica's usefulness to the D. A. He walked out on his job and was nowhere to be found when his witness in the Baff case, Joseph Sorro, admitted that as a favor to Musica he had falsely accused Cohen. Sorro went to jail for perjury, Cohen went free, and Musica was indicted for subornation of perjury. He was not tried because he had disappeared.

Quite possibly the D.A. was not too anxious to find him, for Musica was just around the corner, in Brooklyn. There, under the name of Frank B. Costa, he embarked on a new career: bootlegging. In partnership with an old underworld acquaintance, Giuseppe Brandino of Sicily, he founded the Adelphi Pharmaceutical Company which specialized in making hair tonics and other products—all containing large quantities of alcohol.

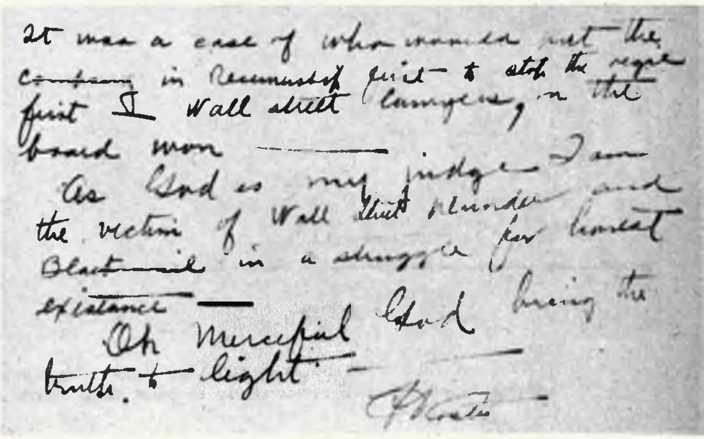
The firm had an alcohol quota of 5,000 gallons a month and it was a cinch to divert most of the stuff to bootleggers. Business was fine, but Musica got into arguments with Brandino, and when he could not "shake" his partner, he simply double-crossed him by having the alcohol license revoked.

Almost immediately, Musica founded another drug firm in Mount Vernon, New York—Girard & Co. He gave his mother the name Girard, and changed his own name to Frank D. Coster. And once again he proved himself a genius at business, a man who could have succeeded without resort to crime. In just two years Musica did such a great sales job on the shampoos, hair tonics and toilet water he manufactured that by 1925 Girard & Co. was doing a 2 million dollar a year business. This figure included bootleg sales of alcohol, but much of it represented legitimate sales.

But Musica considered the legitimate part of his business as merely a blind. He bribed department store buyers to give him faked orders for shampoo so that he could get his alcohol quota raised to 25,000 gallons a month. Most of this was promptly sold to bootleggers, although it was neatly accounted for in the books as legitimate sales. Books showed $2.35 for a gallon of spirits of camphor—which were never delivered. Meanwhile Musica was pocketing $5.00 per gallon for the alcohol that went in its virgin state straight to the bootleggers.

To make things look good to revenue agents and to the banks from whom he intended borrowing money, Musica took an awful chance. He called in the country's biggest accounting firm, Price, Waterhouse & Co., to audit his books. Taking all book entries at their face value, they found that the books balanced, and gave Musica a clean bill of health. At the same time they taught the swindler a valuable lesson: unless requested to do so, and paid for it at high rates, an accounting firm does not perform such detective jobs as checking whether certain orders have actually come in and have been filled. All they do is see whether the credit and debit sides of the ledger balance.

Encouraged by this experience, Musica set out to borrow additional working capital. His bank steered him to the Wall Street investment firm of Bond & Goodwin, one of whose officials, Julian F. Thompson, looked over Musica's books and liked what he saw. He also liked Musica. Thus began a beautiful friendship in the course of which Musica used Thompson's immaculate reputation and excellent connections to drum up first $100,000, then 1 million, then 20 million, then an additional 16 million. The first sum was a straight loan, the larger ones were the results of stock issues, underwritten by leading [*Continued on page* 90]

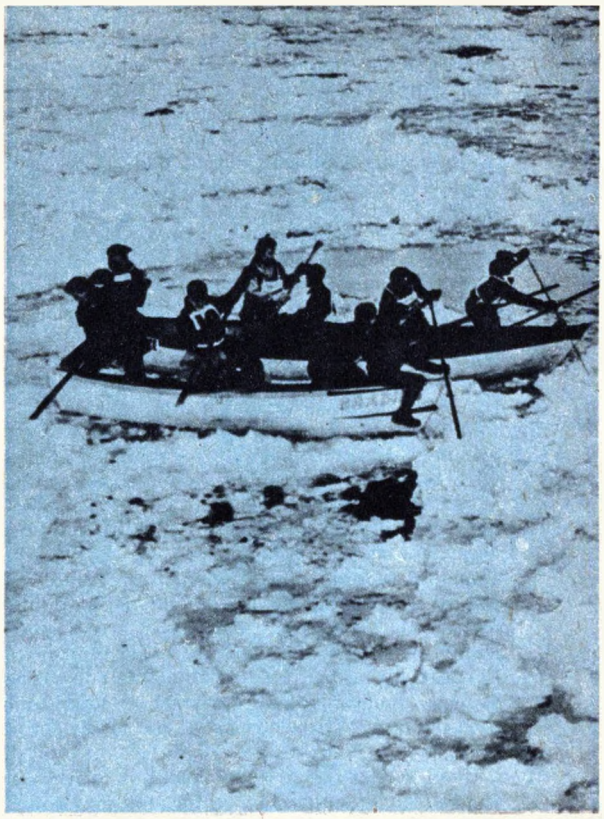

Wall Street lawyers, in the board room ——
As God is my judge and the victim of Wall Street plunder and Blackmail in a struggle for honest existence ——
Oh Merciful God bring the truth to light ——
F. Coster

As police entered his home, Coster-Musica killed himself. His suicide note—his last lie—protests his innocence.

Ice Cakes and Tough Cookies

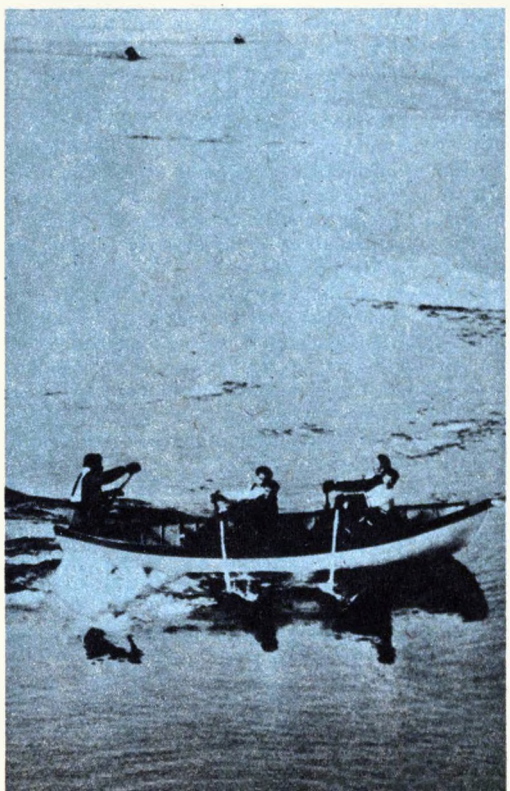
In this crazy race you can drag, shove or carry your boat. Some guys even row it

• In the early spring in America, a young sportsman's fancy usually turns to thoughts of hunting and fishing. In Quebec, Canada, the young blades turn their minds and muscles to the annual five-man whaleboat "canoe" race. Normally these canoes are used by island dwellers in the St. Lawrence River to transport supplies from the mainland. Right after the ice starts to break up in the spring, their crews come from all over the area to compete in the annual struggle across the ice-choked river and back. Currents, tides and the necessity of dodging ice cakes bigger than the boats make the course far longer than the mile and a half it measures as the crow flies. Take-off point is Quebec's famous Louise Basin where tens of thousands spectators line the shore to see the grind. Last year's winners, the Lachnace brothers of Montagny, made it in 21 minutes, 3 seconds—to collect the $500 first prize.



PICTURES AND TEXT BY BEN AND SID ROSS

START of race finds boats, which are shod with steel runners, lined up with crews ready to push onto course.



OPEN WATER is rare and loved by racers who find rowing easiest part of race. Floes are fended off with oars.

CREW has to fight to keep from being swamped or stuck in ice-choked water. Trapped boats are rocked out.

BOOTS are fitted with creepers to help struggling men dig feet into the ice.

FINISH finds winners devastated, drenched with sweat (despite cold) from alternate rowing heaving, pushing.

FLESH AND BLOOD

No other circus act requires the skill and daring needed by Hugo Zacchini, the mortal missile. One slip in loading or firing the gun or landing in the net and . . . human hamburger

In dressing room Zacchini dons cannon-fodder costume: calfskin coveralls and boots.

BY BILL BALLANTINE

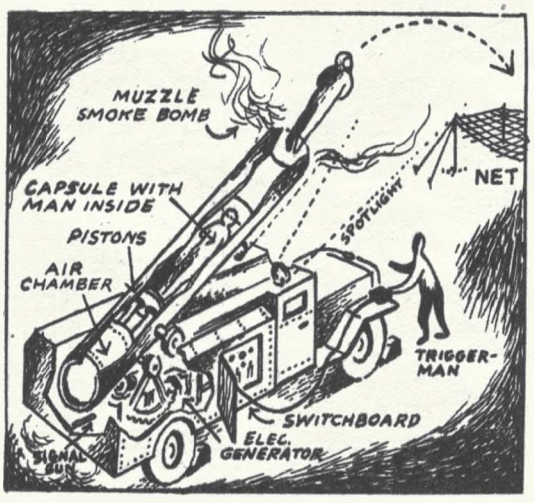
The world's all-time champion human cannon ball, and certainly the most durable, is a sturdy, Italian-Brazileno named Hugo Zacchini. Since 1922, twice a day, rain or shine, he has been flashing, practically without pause, from the maw of one monster cannon or another.

While no accurate record has been kept of this 34 years of cannon-foddering, Hugo's total number of free-flights through space, even by conservative calculation, comes close to a staggering 14,000 (on the basis of the usual eight month circus season, deducting a three-year wartime layoff, and allowing a maximum of non-working Sundays). Nevertheless, in spite of this staggering amount of "firings," Hugo Zacchini has escaped serious injury to date, is indisputably the greatest of the human cannon balls.

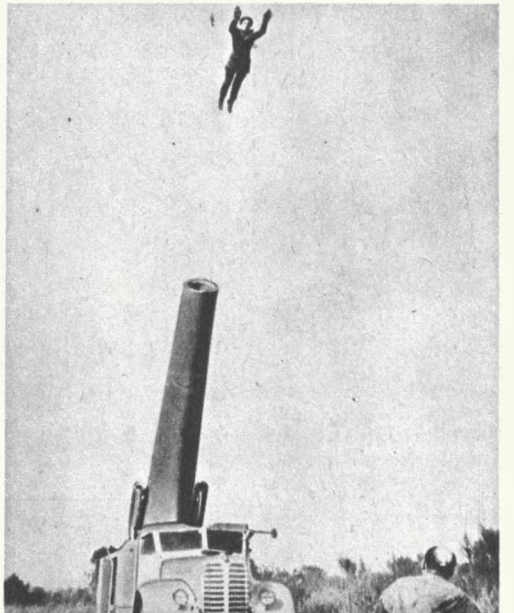
Shooting a man from a cannon is the most hazardous act in outdoor show-business, a field of endeavor that thrives on neck-breaking performances. This human projectile stunt has taken more toll than any other, including the extremely dangerous flying trapeze triple somersault. More than 30 intrepid human bullets have been killed by the cannon, [*Continued on page* 96]

Hugo Zacchini leaves cannon at 250 mph, has two seconds to zero-in for walloping landing in net.

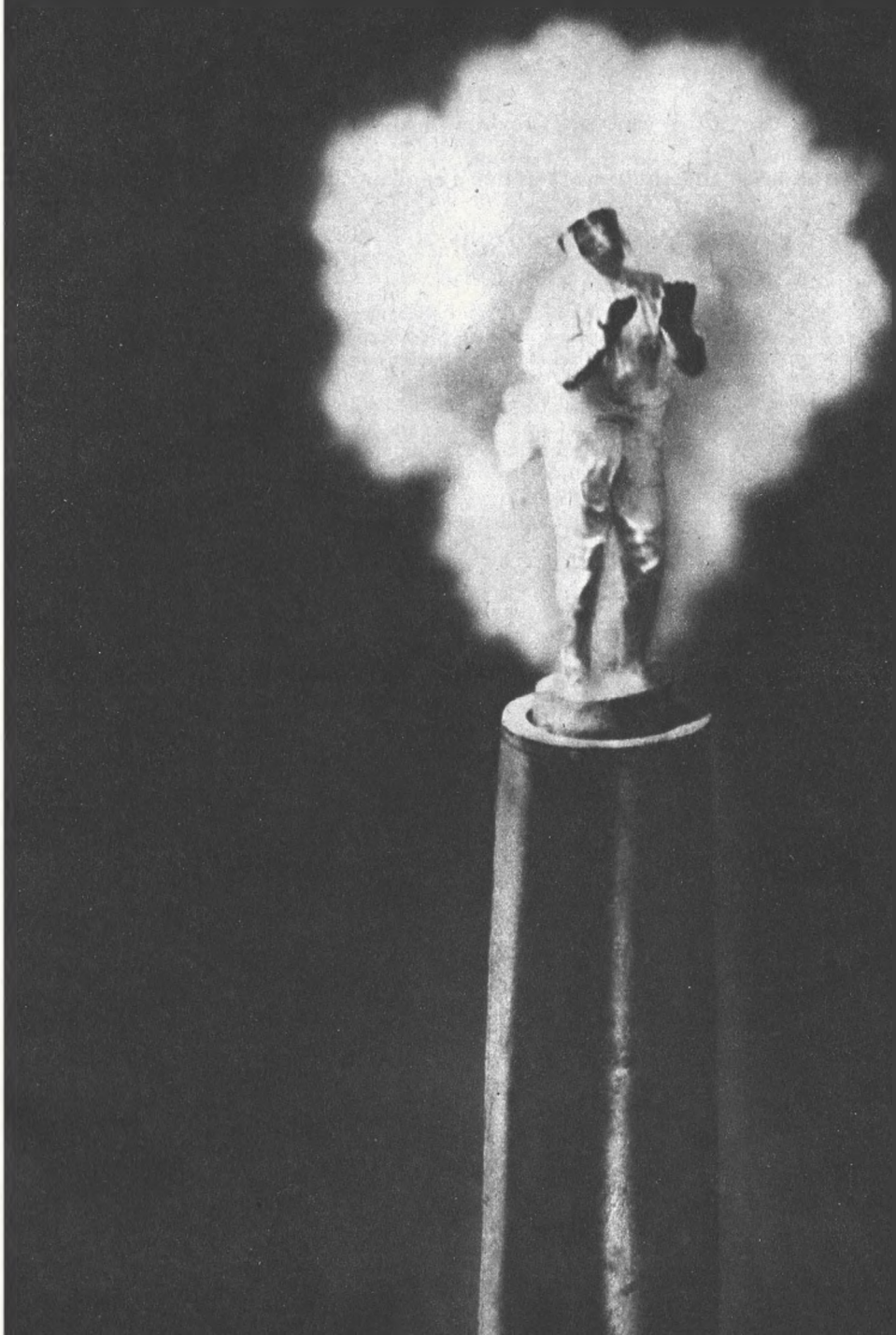
Diagram of Zacchini cannon. Compressed air is the propelling force. Report, smoke are strictly for effects.



A Zacchini girl tries outdoor artillery shot. Whole clan is injury-ridden from years of cannonballing.



CANNON BALL



TRUE ADVENTURE

They Built Their Coffins Small

In the boldest sub attack of the entire war, the four-man crew of the XE-3 slipped into Jap-held Singapore and wedged their craft under a cruiser. Their job: sink it

BY SANDY SANDERSON

The Pacific was mirror-calm on a night in the last year of World War II, but lit by a giant moon as one of history's strangest and most audacious war dramas opened. It was shortly after midnight and the British fleet submarine *Stygian* lay silently surfaced in the Japanese-infested waters just 40 miles off the enemy stronghold of Singapore.

From the conning tower a few figures appeared on deck, inflating a rubber dinghy. They shook hands wordlessly and four of the men clambered into the boat and paddled aft of the submarine along a steel cable, leaving a golden, phosphorescent wake behind them.

A hundred yards away they came upon an odd little craft called the *XE-3*, a "toy" submarine only 48 feet long and six feet in diameter, a tiny naval conception without torpedoes which had had to be towed 1400 miles to get within striking distance of the enemy.

The rubber boat bumped against the thin steel plates of the *XE-3* and the four men exchanged places with the ferrying crew which had ridden her this far to spare them fatigue. Again there was a silent handshake, and the ferry crew paddled up to the tiny sub's bow to release the tow cable. Lieutenant Ian E. Fraser, DSC, British Royal Navy, stood in his conning tower and watched them disappear into the safety of the mother submarine.

In a few moments he was alone. "Start the diesel, please," he said in a conversational tone to the three men sitting below him. In another minute the *XE-3* moved off toward Singapore, and the incredible mission was under way.

Lt. Fraser had been quietly told to take his midget submarine through all of the Jap defenses into Singapore's inner harbor and sink a 10,000-ton cruiser, the mighty *Takao*, there in broad daylight!

Ahead of him in the dark now lay Japanese patrol boats and miles of uncharted mine fields, ahead of him too at mid-morning lay the antisubmarine net and patrol boat at the mouth of the harbor, manned by the very enemy which had first developed the midget sub as a weapon.

The harbor, if he should succeed in entering it, crawled with cargo shipping and navy small craft. To put up a periscope in the bright afternoon sun seemed almost suicide; not to put one up to check blind navigation was to risk running aground—or worse, collision. It seemed inconceivable under these conditions that he should even find the *Takao* in a large and complicated harbor, much less attack her, much less sink her, opening the way for the Allied invasion of the Malay Peninsula.

Whatever their courage led them to achieve, it seemed even less possible that Lt. Fraser and his three men would succeed in escaping alive in their curious little craft that day.

The midget sub had a mixed record in World War II, probably in a large measure because there were not many men with the superlative natural skill and training and courage of Fraser and his crew. The midget sub was a tricky piece of machinery even when it was well designed and perfectly built—which it wasn't always. And it was even trickier to operate, since most of the navigating had to be done by absolute dead reckoning under enemy waters so cramped and guarded that the flick of a finger on the steering gear or a wrong stroke of a plotting pencil meant disaster.

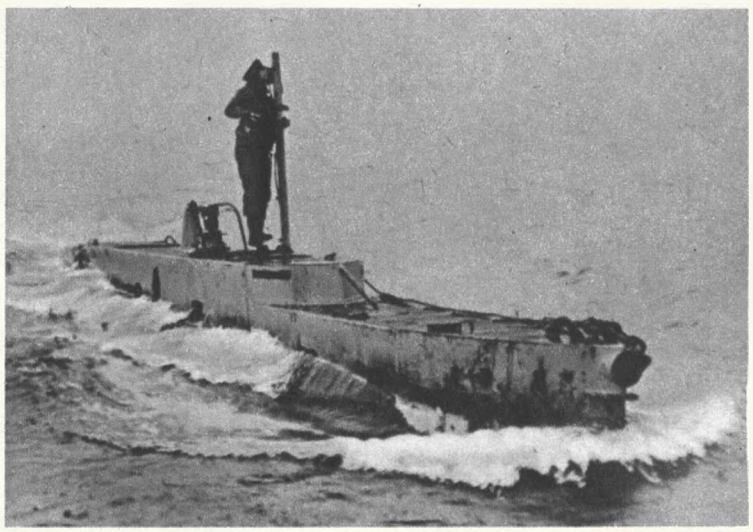
The brilliant story of Fraser and his *XE-3* begins as far back as 1905, when a British engineering firm constructed a tiny 33-foot sub, the *Volta*, equipped with two torpedoes. She performed creditably in her public North Sea trials, but the British Admiralty sniffed that the Royal Navy had no need for such toy craft. The U.S. Navy did not even

Time was running out as Magennis planted the limpets along the keel.

Illustrated by Brendan Lynch

THEY BUILT THEIR COFFINS SMALL *continued from preceding page*

Boyish grin of midget sub captain Fraser belies the temperament of an underwater tiger.



C.O. conns a midget sub through Sydney harbor from a wet and precarious perch on the awash deck. Rest of crew guides sub from below.

bother to send observers, although the Japanese government did, a fact the U.S. discovered to its sudden fright early one morning 36 years later off Pearl Harbor.

The British had a kind of underwater Pearl Harbor of their own on Dec. 20, 1941, when six Italian frogmen, riding especially designed torpedoes, attached explosive warheads to the bottoms of *Valiant* and *Queen Elizabeth* as they lay securely in the harbor of Alexandria, Egypt. The warheads blew up, and the two battleships were out of action for almost a year. In a blistering memo to the Admiralty, Winston Churchill asked what the blazes England was doing to attack Axis harbors in a like manner.

X-craft were the answer. Naval architects hurriedly yanked out designs of the old *Volta* and her successor prototypes and redesigned them. They did a surprisingly good job, Six *X*-craft were ready for sea trials and crew training in January 1943: pencil-slim miniature submarines in almost every respect, 48 feet long, six feet in diameter, with a range of 200 miles and a crew of four picked men. With them, and the improvements constantly being made up to the end of the war, Britain wrote the book on midget submarine activity—successful midget activity.

The first and most spectacular *coup* of the British *X*-craft occurred on Sept. 22, 1943, when three midgets slipped past the guards, the patrol boats and the submarine and torpedo nets into Alten Fjord, Norway, and damaged the 41,000-ton German battlewagon *Tirpitz* so badly that she never was able to venture out as a raider on the Murmansk convoys again (she finally fell victim to RAF bombs a few months later).

It was a tremendous victory for the submarine service, since the *Tirpitz* had tied up a goodly portion of the British Home Fleet on watchful alert. It may have been this victory which persuaded Lt. Ian Fraser to transfer in 1944 to the *X*-craft from big, fleet submarines. That and the fact that he would be sure to get his own command in the midgets.

Fraser was a strange man. Only five feet four inches tall, he was the perfect submariner in size and temperament, and had already won the Distinguished Service Cross for sub work in the Mediterranean. But more than that, Fraser was a perfectionist. The raid on the *Tirpitz* had been costly in men and submarines. The weapon itself was imperfect, of course, but Fraser was convinced that training and tactics were also woefully inadequate for this most demanding of all submarine operations.

He pored over the records of the *Tirpitz* mission and interviewed every man he could find who had participated. Six *X*-craft, each under tow by a fleet submarine, had set out from Scotland. But in the 1100-mile voyage to Norway, one of them had become unseaworthy and had had to be sunk. Why? Fraser wanted to know. Why had there been a malfunction and where had it been exactly?

A few hours later in the same mission *X-5* had snapped her steel tow cable and plunged, without a cry, to the bottom of the North Atlantic with all of her crew. There was no one alive to answer this question but again and again Fraser pressed it. Had this tiny craft died because her crew had not known how to handle her in an emergency situation?

Running through the minefield outside the fjord the *X-6* had damaged her periscope and had abandoned the mission. In the actual attack on *Tirpitz* a fourth X-craft was lost with all her crew, and the fifth lost half of hers. The six remaining British survivors were taken prisoner by the Germans at Alten.

The mission was a success, the midgets and their crews expendable.

Fraser thought a good deal about this. He had no intention of dying—or even of being taken prisoner, especially if it were the Japs he was attacking, which seemed possible since the U.S. had no midgets and the element of surprise was not yet dissipated in the Pacific.

Fraser was determined that his midget sub would not malfunction. He suggested various engineering modifica-

tions, most of which were made. He devised new tactics for navigating minefields and nets. And most importantly, he spent a long time selecting his crew and so instilling them with his perfectionism that they never grumbled at the days-long simulated attacks Fraser put his craft through, sometimes as it lay moored alongside the dock, sometimes in British harbors.

Fraser was determined that he would sink big game, but that his would not be a one-way suicide mission.

His chance did not come until the summer of 1945. Earlier in the year a flotilla of *X*-craft had been ferried by ship to Australia. Now in the closing months of the war there was important work for them to do. To disrupt communications in southeast Asia, the Allied high command wanted the submarine cables to Tokyo cut in the harbors of Saigon and Hongkong. But more importantly the way had to be cleared for the invasion of Malaya, and two Japanese cruisers, the *Takao* and the *Nachi,* in Singapore harbor could make trouble.

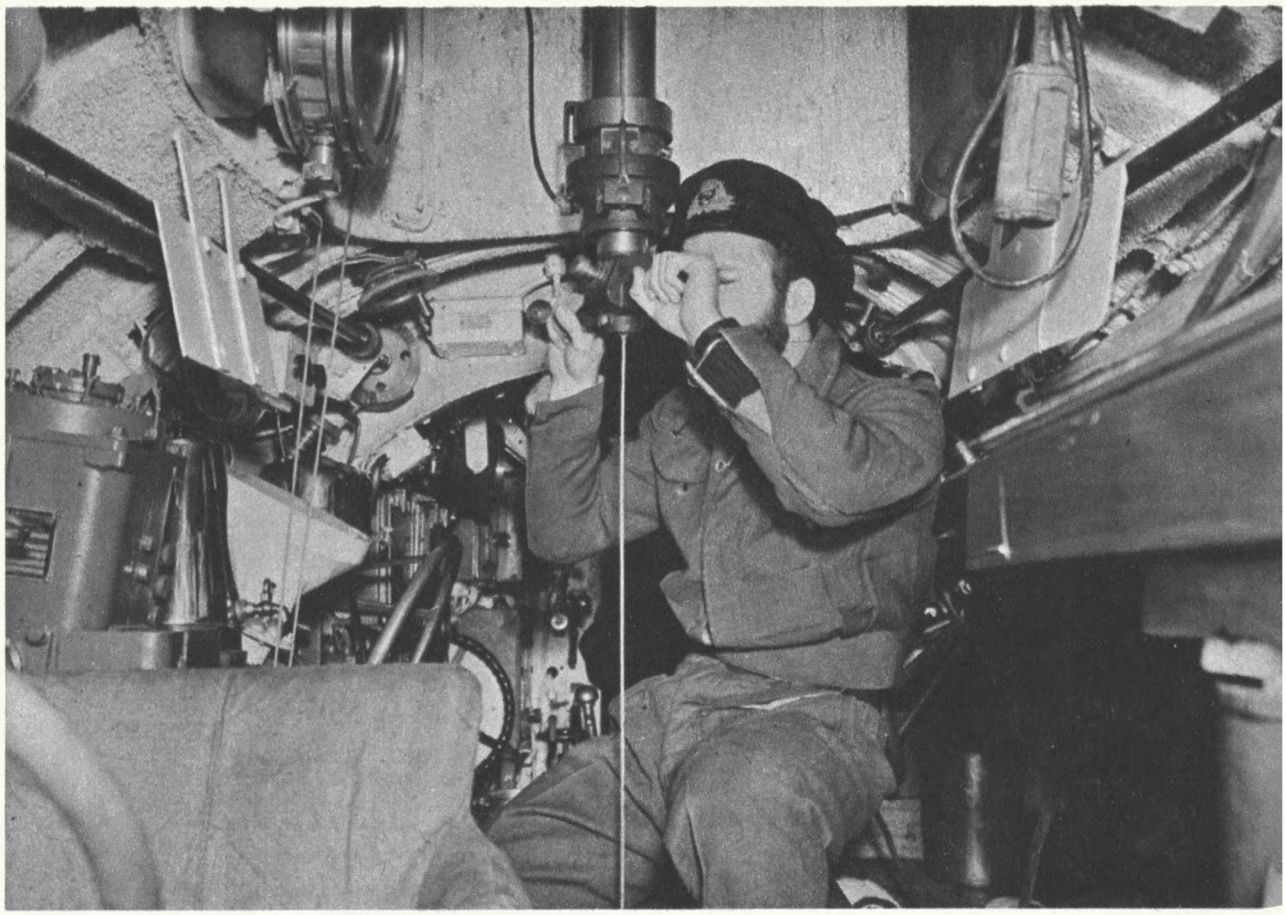
An X-craft was assigned to each. Fraser drew the *Takao.* U.S. submarine chief in the area, Adm. James Fife, bid them farewell. "You're the little guys with a lot of guts," he said. "Good luck."

On July 26, from Labuan island near Borneo, the *XE-1* and the *XE-3* were taken in tow by their respective fleet submarines. Fraser on board the *Stygian* with his crew went over the detailed plotting of Singapore harbor until they knew every buoy and mudbank. They thought they knew every submarine net, too, but as Fraser told his men: "The odds are that we don't. The odds are that we will never reach the Jap, and the odds are even greater that we'll never get back. But we're going to beat the odds."

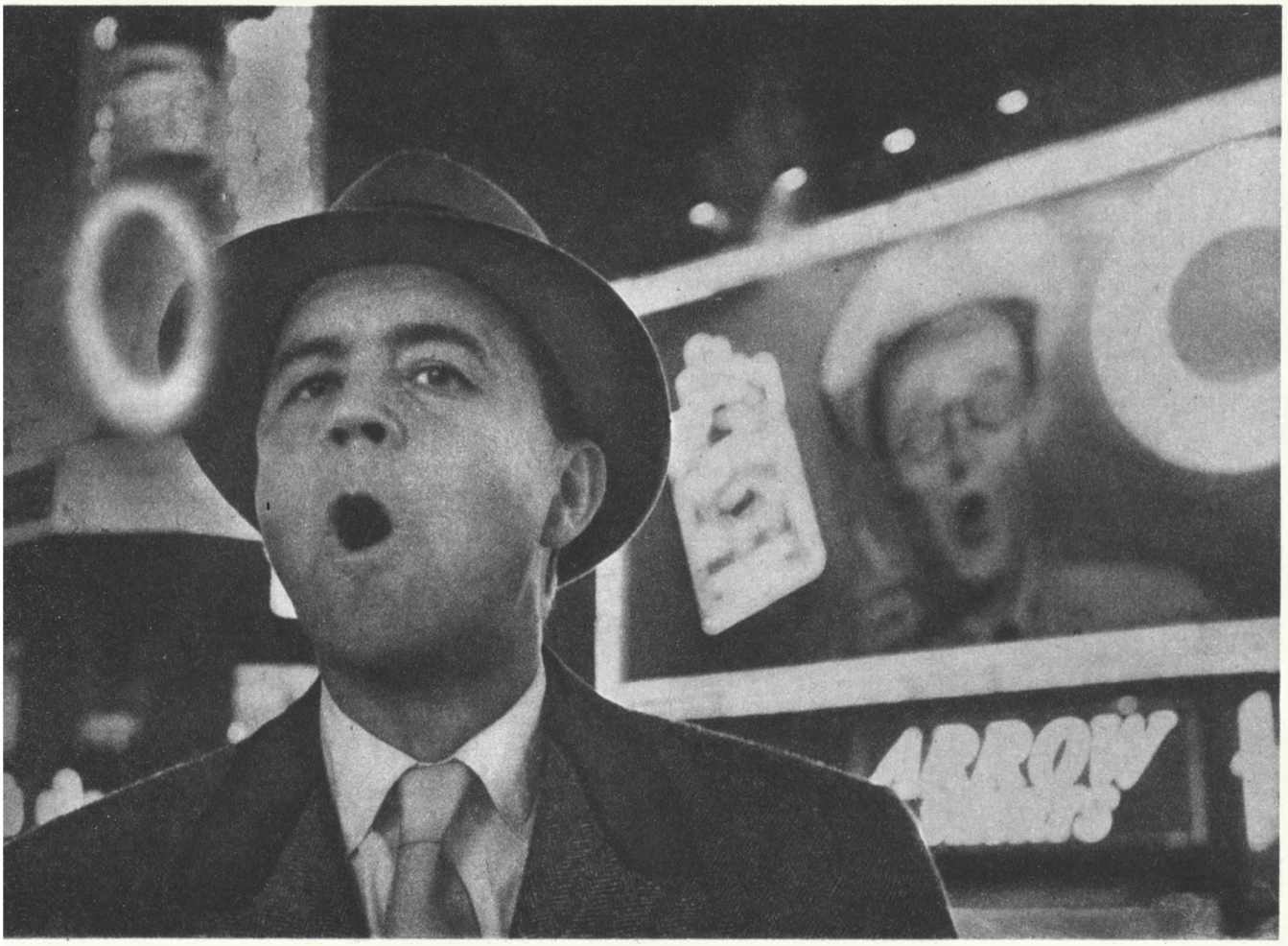
Still, it was a fantastic concept: attacking an enemy capital ship in its own harbor in full daylight. And what a ship. The *Takao,* although of cruiser tonnage, bristled with eight 8-inch guns, eight 5-inch guns and an equal number of 47-m/m cannon. In addition she carried eight 21-inch torpedo tubes and four float-type aircraft. No man could get that out of his head.

But no man spoke of it as the *XE-3* got under way toward Singapore. It was a clear night with a hint of the day's heat ahead and a brilliant covering of stars. Fraser did not especially care for such a bright moon; it would help in the minefields but would also reveal them to Japanese patrol craft. The *XE-1,* which would attack independently, was not in sight with her mother submarine but he did not worry about them. Fraser had problems enough of his own.

He was pleased with his crew. [*Continued on page* 56]



In these cramped quarters, captain of the XE-3 slithered through Singapore's 15-foot shallows. Forced to stay submerged for a grueling 30 hours, the tiny sub's four-man crew groped blindly toward their target by dead reckoning.

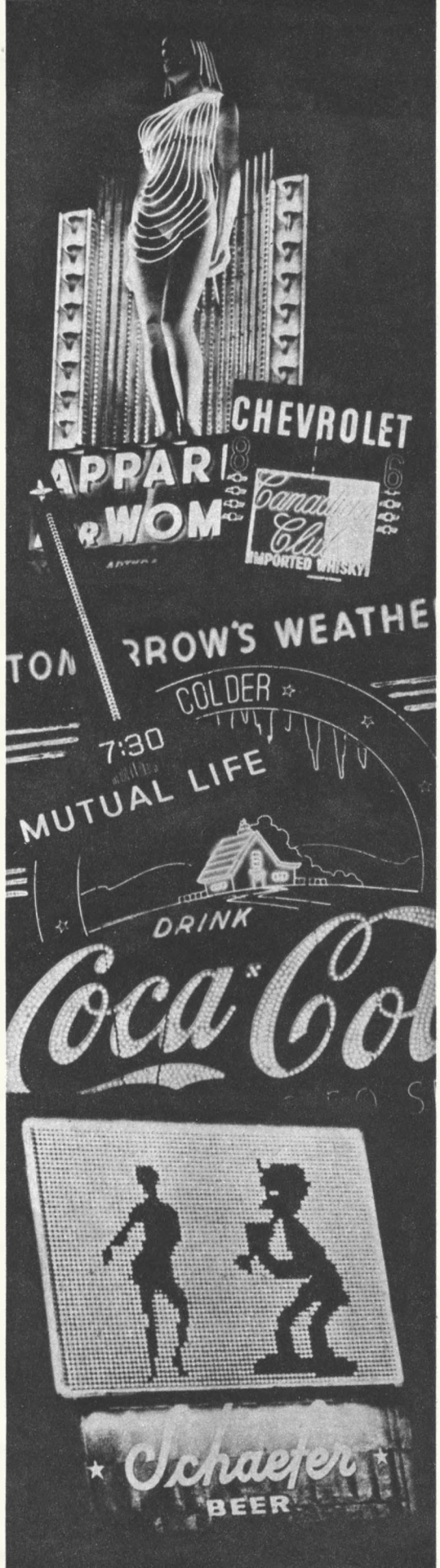


In Times Square, now his backyard, Leigh imitates one of his biggest hits, smoke-blowing Camel sign, rear.

He sells the biggest display signs in the world to people who don't even realize they're being sold. That's the secret of the

damndest salesman of them all

By Martin L. Gross



On October 27, 1950 a sleek General Motors streamliner pulled out of Detroit, bearing a selected load of newspaper editors. Destination was Ann Arbor, Mich., where the editors, after being endoctrinated with the superlative qualities of the car maker's product, would be guests of General Motors at the Michigan-Minnesota football game.

As the trainload of captive editors pulled out of the Detroit station a huge ex-navy blimp made an unscheduled and surprising appearance. With its nose always a little ahead, the blimp paced the slower GM train. Inside the train the editors hilariously called each other's attention to the blimp, thumped each other on the back and roared with laughter.

Emblazoned in flashing electric bulbs on the blimp's huge side was the simple message: *FORD'S OUT FRONT!*

The pixie responsible for this commercial hot-foot was one Douglas Britton Leigh, king of the "spectaculars", "Barnum of the Bulbs"; a one-time $30 a week outdoor sign salesman who parlayed flamboyant advertising ideas and smart salesmanship into a multi-million dollar outdoor advertising business.

Leigh's stock in trade are the dozens of "spectaculars" he has created and rented from Times Square to Hollywood and Vine. A *spec* is defined in the business as any electric sign over a 1000 square foot, but it is actually more of a conglomeration of neon, plaster and gimmick like Doug's famous Camel sign that blows perfect smoke rings across Broadway, the old Bond Clothes sign with five-story nude statues standing above a giant man-made waterfall, the world's largest spectacular, the new block-and-a-quarter Pepsi Cola sign complete with a fifty foot bottle top that changes color, and dozens of others.

Showman Doug Leigh has made Times Square and its 52 miles of neon tubing (enough electricity to light Reno, Nevada) the world's No. 1 tourist magnet, already outpulling the Statue of Liberty. Everyday 1,500,000 people (what the trade calls "circulation") pass through Times Square, that X made by the intersection of 7th Avenue and Broadway from 42nd to 50th Street. For entertaining these mobs with smoke, neons, waterfalls, steaming tea cups, giant thermometers, clocks, rotating towers, Leigh collects from the nation's most conservative business firms anywhere from $25,000 to a cool quarter of a million dollars a year—for what a former boss once told Leigh were "a lot of crazy ideas."

To get a closer look at this businessman's Barnum (who also happens to be exclusive agent for all 13,000 Railway Express truck posters) I visited the Manhattan offices of Douglas Leigh Inc. where the colossal is plain bread-and-butter.

Leigh was seated at a large desk in his modern, carpeted office complete with overhanging mobile. He looks a good dozen years younger than his 46 years, a failing that plagued him for decades with the title "The Boy Sign King."

By advertising tradition Showman Leigh should be a flashy, flamboyant character with a mouthpiece as loud as

This montage of Douglas Leigh's lighted signs shows the kind of flashy, king-size display that has made him rich.

his clothes, or at the very least, another Billy Rose. In the flesh, however, the man who lights up Times Square is quite different. The contrast between Doug Leigh and, say, his giant Chevrolet sign that crowns Times Square is shocking. He is more a Mr. Peepers or Walter Mitty than an extrovert showman, a fact that both baffles and irks Leigh's competitors.

Leigh was dressed in a comparatively conservative, dark blue double-breasted suit and was wearing the oversize tortoise shell glasses he uses for paperwork. Leigh, born in Anniston, Alabama, still looks and sounds like a small-town southern boy with a distinct southern drawl—despite his boasts that he's shaken his Alabama upbringing. He speaks in a shy almost inaudible voice. He is smaller than average height and slightly built.

He looks like the prototype of the guy you forget two minutes after meeting him at a cocktail party. His manner, far from being showmanlike, is almost mousy. He is the soul of politeness and has a reputation for sirring everybody including his sign repairmen. In fact, this crackerjack salesman who virtually pushed his old boss, General Outdoor Advertising, off Times Square, looks almost incapable of making a sale.

Douglas Leigh spectaculars (his name is usually in 3-foot lights alongside) often rise hundreds of feet up. But Doug Leigh himself has a desperate fear of heights. "Going up in an office building above the third floor and looking out an open window makes me nauseous," he says. Leigh makes it a point to rent offices that are close to mother earth, including his present one on the third floor. When he supervises the erection of a new sign, his workmen come down to report to him—he never goes up on the job. Once when Leigh couldn't get a hotel room below the third floor, Doug tied a sheet around his ankle and securely fastened it to the bedpost while he slept.

While we talked, Leigh sat at his desk surrounded by photos of his latest spectaculars, the new Fedders Air conditioning sign atop the Strand Building, the Scripto Pen "merchandiser" tower that rotates over 46th Street and Broadway, and a tremendous "Hey Mabel" sign for Carling's Beer in Grand Circus Park, Detroit. Close by was a photo of Leigh's WRCA electric sign that is the trademark of Steve Allen's "Tonight" TV show.

Leigh loves to talk about his spectaculars, which he seriously considers works of art somewhat in the class of the biblical wonders. "I've always been attracted by electric light," he says. "I believe spectaculars are a symbol of Twentieth Century America just like the Sphinx was for ancient Egypt and the barber pole for medieval surgeons. Times Square is the setting for our Twentieth Century symbols.

"I think our spectaculars capitalize on the people's fascination for toys. They like to watch perfect smoke rings—which most of us can't blow—or look at animated cartoons or giant soap bubbles falling out of a 35 foot Super Suds box, as we once had on Times Square. I suppose basically it's the same thing that attracts people to Walt Disney's movies."

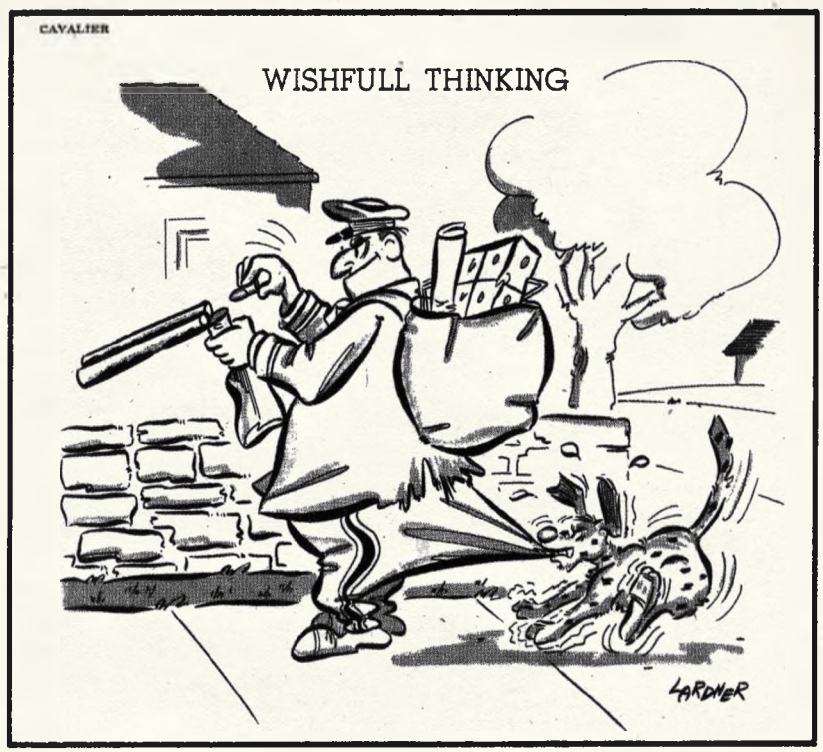
Leigh always has a half dozen projects going simultaneously, and he discusses them if competitors aren't listening. Two or three of them are sure to involve time and temperature, two fetiches of Leigh's. "I don't know why, but they are two basic things everyone is interested in. We include them in a number of our spectaculars as constant attention getters. Among others, we have the giant Chevrolet clock on Columbus Circle and the Coca-Cola "Thirst Knows No Season" sign which gives temperature and the weather predictions in electric pictures of snow, hail, sun, etc. We've just completed designing the world's only combined time and temperature sign—they flash on alternately—for the Equitable Assurance skyscraper tower in San Francisco. It can even be seen from the Golden Gate bridge."

The paradox of retiring Doug Leigh monopolizing the spectacular business is aggravating to competitors who wouldn't mind if

he were at least in the tradition of Billy Rose, Mike Todd, or even Bill Zeckendorf. A few people state frankly that Leigh's over-delicate small-town style must be a shrewd calculated front to gain notoriety. Leigh's associates don't agree, but Fred Kerwer, Leigh's P. V. in charge of technical brains and converting Leigh's mad schemes into reality, warns about taking it too seriously.

"Don't let Doug's shy manner fool you," he says. "His style is deceiving. He's actually a master of low pressure salesmanship. He thinks big like other showmen, but he has the advantage that he looks and acts like a charming small town boy. It throws a lot of people off balance and meanwhile Doug is in there selling. I call him the silent slugger. He's the best salesman I ever knew."

Leigh's soothing southern manner is deceiving in more ways than one. He even looks incapable of pulling off a shrewd business deal. Actually Leigh owns *all* the stock of *all* three of his companies—one that creates and rents Broadway spectaculars, another consulting service (he designed the Mutual Life weather-time tower in New York) and a third for his lucrative Railway Express franchise. "When I was a young boy in Alabama, my daddy told me never to own less than 100% of a business. It keeps you maneuverable and untroubled by minority owners. It's the best advice I ever got."



According to one source Leigh is a master at putting together two ends of a big deal—especially when he's not sure of either end. "Leigh heard gossip in the trade that the Railway Express poster franchise was available. He went to see Camels (to whom he had just sold the smoke ring sign) and suggested that they buy all the space on the Railway Express trucks. When they got interested, he went to Railway Express and broadly hinted that with the franchise he could sign up Camels. He cleverly put the two together and it clicked. It's become one of his biggest money-makers ever since."

The fabulous career of the showman-salesman started in Anniston, Alabama where Leigh's boyish underselling made him a star Saturday Evening Post salesman at the age of 10. When he was 14, then living in Greenville, North Carolina, he "bought out" the Palmette Magazine Agency (one salesman, Doug Leigh) from a friend without cash—just an agreement to split the renewal subscription profits with the former owner. "I made an average of $1000 a year," he recalls. On the side Leigh found time to sell newspaper subscriptions to a local daily which was offering a free bike for 20 subscriptions. A week later, Doug walked in and meekly asked for 2 bikes. He had sold 40.

The irony of the shy, spectacled small-towner coming to New York and really showing the big city how to lgiht up Times Square has puzzled fast-buck veterans. Strangely enough Leigh remembers a vivid impression that may explain it. "It was during World War I," Leigh recalls, "and I must have been about eight years old. I went down to Anniston's main street and there before my eyes was this tremendous American flag stretched across and over the whole street. It was made up of brilliant red, white and blue electric bulbs. It was the most beautiful thing I ever saw. I can still remember just what it looked like—it made such a lasting impression on me. I suppose it was one of the first spectaculars."

At the University of Florida a few years later his salesmanship forced him to leave college. In his freshman year, Leigh bought the advertising rights to the yearbook from delighted officials for $2,000, then turned around and sold $7,000 in space, pocketing the difference. "I don't know how I sold that much, except that I think I have a "feel" for selling, and that I spent a lot of time at it," Leigh explains. "I wasn't a very good student. I spent most of my time dreaming up ways to make money. Of course I gave my clients service. Instead of copy that just said: 'Courtesy of so-and-so,' I wrote real ads for them."

The next year when the cagey collegians refused to sell the now-valuable franchise, an indomitable Leigh represented manufacturers and sold fraternity pins, belts, pennants, etc., on campus. When his net came to $10,000 he decided he had learned all he could at college, and promptly quit.

Leigh whetted his appetite on the sign business while still in college. "I was driving on the road from Gainesville to Jacksonville looking at one billboard after another. It suddenly struck me that something better could be done with signs than just pasting them against a board."

He went to work for a small sign company in Birmingham, then switched to Atlanta to sell painted signs for General Outdoor Advertising for $25 a week. But he soon got disgusted with painted signs. "I came to the conclusion that a sign isn't very much if it's not illuminated," he says.

At the ripe age of twenty, Leigh entrained for New York looking for a future. He made the rounds of the advertising agencies without luck, and when the $10,000 was gone (spent, says one source, on Leigh's love for good clothes and cars) he took a job with his [*Please turn the page*]

old firm, General Outdoor, selling sign space in Brooklyn. By the time he was 23, he was one of the firm's best salesmen, earning $50 a week, a big salary for the times.

"I remember when Leigh first came to work for us," recalls a General Outdoor salesman of long standing. "He was a smart young kid with fuzz on his chin, and very ambitious. He was always asking questions about locations and signs, soaking in as much knowledge about the business as he could.

"The funny thing about Doug was his thick southern drawl. He was very self conscious about it. Every night he used to stay after everyone went home. He had a record made of his voice and he'd put it on the record player and just listen and listen, hoping he had lost some of his southern accent. Then he would try to improve. The next day he'd make another record and stay at night again, listening to it over and over.

He was now consumed with a hunger for "spectaculars," the handful of big ones General Outdoor had on Broadway. "You can't sell those," Leigh was told patronizingly. "You're too young and besides, you need personal contacts with men like Sloan of General Motors."

Doug quietly pestered his boss with ingenious ideas. "Why don't we make a three dimensional coffee cup spectacular and pipe steam through it so it looks hot and smoking? We could sell it in a minute." When General Outdoor answered: "Sorry, son, but those wild ideas will never get you anywhere," Doug Leigh packed up his southern charm and quit—this time to start his own business. "I've learned that quitting at the right time is sometimes a lot better than a promotion," he says.

His grand entrance to the bright lights was a blowout. He got a bad case of mumps and slumped in his furnished room in Greenwich Village for two weeks. His funds were down to $50 and his rent months overdue. He then had the big idea.

"I remembered a good spot on Fordham Road in the Bronx that might be right for a New York hotel sign," Leigh recalls. "I had breakfast at the Automat (he still enjoys it), bought a 50c Japanese camera and took the subway up. The landlord gave me an option on his roof on credit. I took a snapshot and had an artist friend enlarge it, also on credit. Then he made what we call a 'cosmograph.' He painted in a sign for the swank St. Moritz Hotel right on the photo of the roof top." Well-armed, he walked in to see the manager of the St. Moritz clutching his cosmograph. The manager found himself listening to the bland young man and, subsequently, signed a year's contract for the sign—which existed only in Doug's imagination and on a photographer's printing paper.

Leigh was overjoyed until he realized he had no funds to build what he had just sold. He promptly sold his only asset, a second hand Ford, for $150, and bought materials for the sign, a painted job to be illuminated by floodlight. A few days later he received his "rental"—a "due bill" for the St. Moritz which entitled him to live rent free in a luxurious two room suite for a year plus $50 a month eating money. Twenty of it went to pay off old debts and the remaining $30 he budgeted at $1 a day for food at the Automat and a few nickels for subway fare to get around the city.

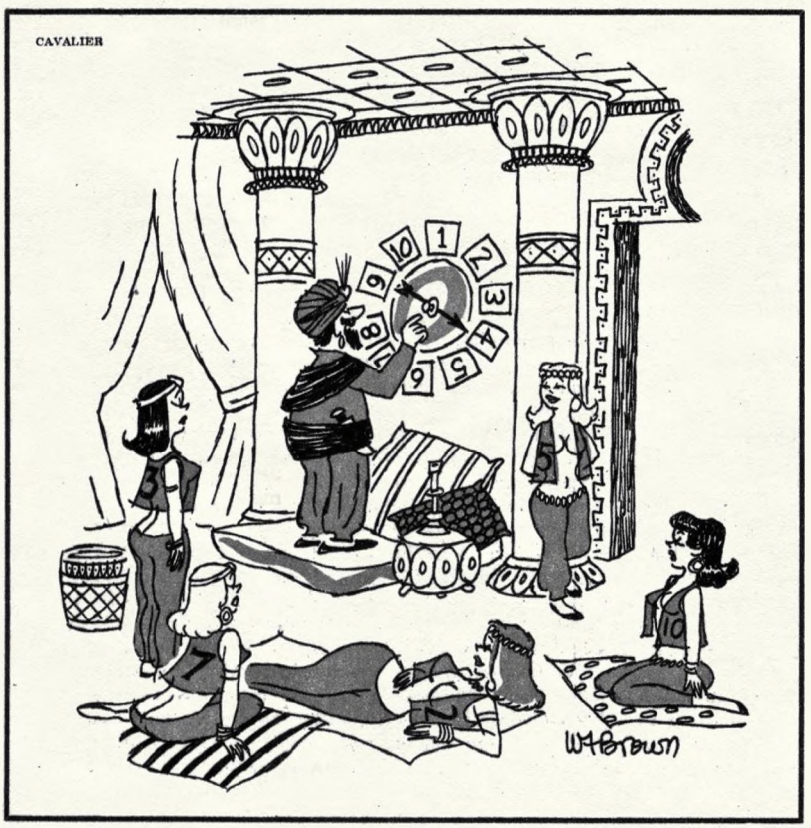
Douglas Leigh was in business. He set up an office in his bedroom and made stationery by rubber stamping in his name above the hotel letter paper. With a roof over head and almost enough to eat he decided to tackle Broadway, the exclusive advertising province of the mammoth General Outdoor Advertising. He made a survey of Broadway, which he found dulled by the depression. "There were only ninety thousand bulbs," recalls Leigh, who actually counted them. He took pictures of Times Square with his Brownie and had cosmographs painted of his favorite spectacular ideas—especially the steaming coffee cup GOA had called "crazy." (Today Leigh's cosmographs are painted in luminescent colors and shown to clients under "black light" to simulate how the Spec will look on Broadway at night.) It was to be the largest coffee cup in the world, 15 feet across the top, beautifully lit at night, and pouring hot steam from its perimeter 24 hours a day.

Leigh made a model and peddled it all over. Finally A & P became interested and at the demonstration the outwardly calm entrepreneur blew cigarette smoke into the back of his contraption and the coffee cup steamed. A & P bought a three year contract.

"That's when I met Doug," says V. P. Fred Kerwer. "Doug didn't have the cash to build it, and I was a partner in the sign company that did the work on credit. I immediately recognized his spark. It was obvious he was an enormously ambitious person who had come to New York imbued with the idea of being successful. I sold out my interest in the sign company and joined him. I've been with him ever since."

The coffee cup, the first novel spectacular on Times Square, had its "premiere" at the corner of Broadway and 47th Street. It worked well for a few minutes, then the condensing steam suddenly came cascading down on pedestrians, advertising agency and A & P executives as a heavy unexpected rain. But the next day, when the pressure was lowered, Douglas Leigh was launched on his spectacular career.

He was soon dubbed "The Boy Sign King", "The Lamplighter of Broadway," etc., and not so shyly, he cashed in on the publicity. He designed a Kool cigarette spectacular in the form of a giant penguin that blinked a red eye once a second, a spectacular for Ballantine Ale with a giant, electrically-lighted clown throwing quoits at a Stake to make the famous three ring trademark in lights, the largest electrical letters in the world (30 feet each) for a Four Roses spectacular to crown Times Square where his Chevrolet sign is now. Because the only sizeable clock on Times Square was atop the lofty Paramount Building, Leigh sold Gillette on a giant neon clock spectacular complete with pendulum and Westminster chimes piped in from Leigh's office. He discontinued the remote control system, however, when a radio inadvertently turned on near the loudspeaker system blared out a World Series ball game over Times Square and



sent police searching for the source of the noise.

It wasn't all shoveling gold these first years, however. After Doug got a contract he had to lay out cash to build the sign, then rent the Times Square space which runs upwards of $10,000 a month—often long before any proceeds came in. He learned how to borrow.

Today, things are quite different. Douglas Leigh Inc. controls the Times Square spectacular business, once the private preserve of his former employers, General Outdoor Advertising. In fact a recent phone call to General Outdoor asking information about spectaculars was politely referred to Douglas Leigh.

The last big GOA hold-out was the colorful Wrigley sign whose presence piqued Leigh. "I felt better when I figured out how much gum they had to sell to pay for it," he says. It has since been replaced by Leigh's super-spec, the giant Pepsi-Cola Bottle sign.

GOA controlled two adjacent specs on Times Square, a Calvert's Whiskey and a smaller Bromo Seltzer sign. When Calvert's complained about having a hangover remedy so close to them, GOA obligingly raised Bromo's rent until they were forced to give it up. Leigh shrewdly jumped into the void. He quietly rented the space, then resold it to Bromo at a much cheaper rental than GOA had charged. When he erected a much brighter Bromo Seltzer sign in the same spot, Calvert's huffily dropped their GOA contract—scratching two GOA signs from what was rapidly becoming Doug Leigh's Times Square.

Leigh's spectaculars attract him like luminiscent magnets. After ten hours at the office, he often walks to Times Square to see his works of art, and occasionally drives around the area with his attractive wife Patricia, "oohing" at the Chevrolet spec or marveling at the giant cup of White Rose tea steaming on a cold night. Many trade people feel Leigh does so well because he *enjoys* his signs. Says one: "He's still a small town boy who gets as big a kick as the spectators he plays to."

As a salesman, however, Doug Leigh is quite unusual. "I've heard myself referred to as a low pressure salesman," says Leigh himself. "I don't know—but I do try to undersell. I believe I have a good product so I simply state the facts and demonstrate what it will be like when completed. I think this simple technique accomplishes two things. First the client thinks he is smarter than you and is getting a bargain worth five times what he is paying for it. Secondly when he finds out other advantages of the sign I didn't mention—like seeing it on picture postcards, in movies, newsreels, TV plays, parades—it comes as a personal discovery. He is then sure he made an excellent buy."

Leigh has been called a "creative genius," but evidence points more to the fact that he's a good improviser.

"I get a lot of ideas from toys," says Leigh. "I once noticed kids making soap bubbles from a toy wand. It struck me that if we could make a machine to make giant soap bubbles, it would be a wonderful spec for a soap company. We made the machine and sold the idea to Super

Suds. We built a 35 foot soap box spewing bubbles over Broadway. I hope to use it again for a soap client—maybe this time with a baby in a bathtub."

One Leigh gimmick, gingerly lifted from a parlor trick, saved his business from extinction during the World War II blackout. In 1941, Leigh was entertaining his brother, Ted Leigh, a med student Doug was helping through school. "Ted took out a package of cigarettes and asked me if I ever saw this trick," recalls the sign king. "He took off the cellophane envelope and burned a small hole in its back with a cigarette. Then he blew a mouthful of smoke into the hole until the envelope was full. Then he gently tapped the back. Perfect little smoke rings came out with each tap. Everybody tries to blow smoke rings and they love to watch them. I realized it would make a great spectacular for a cigarette company."

Only Leigh's Camel sign survived the East Coast dim out. All night, on a darkened Broadway, little clusters of people stopped to watch giant smoke rings eerily floating across the black street. Soon after, in one of his biggest coups, Leigh made a model map of the U. S. with twenty-two cities—all exhaling miniature smoke rings. This symbolic dramatization sold Camels on a three year contract for a Leigh smoke ring sign in every major American City.

One of Leigh's greatest commercial ideas, bringing Times Square to the nation via flying spectaculars, came to him in the Navy where he promoted special devices for training aids. "I saw these giant blimps lumbering along and it struck me that this was the way to make spectaculars nationwide," Doug recalls.

"Doug came in on leave and we had lunch at the Rainbow Room atop the RCA Building," explained Fred Kerwer. "Just then an airship came floating by and Doug said: 'Fred, how would you like to look out this window someday and see that airship with the words "Ford's Out Front" on it?' So help me, three years later it happened just that way."

Working hand in hand with the Navy's Lighter Than Air group, Leigh saved 29 blimps (including ten 260 foot ones)—virtually the Navy's entire fleet—from being cut up for raincoat material. He bought them as surplus for $10,000 each —1/40th the original cost. To Admiral Charles Rosendahl, he promised to hire demobilized Navy crewmen and keep them available in case of national emergency.

Getting the project from Leigh's brain until it was ready to sell—at $19,000 per month per ship—took two years. Then in 1947, Leigh approached the logical clients—Ford, Mobilgas with their flying red horse, Tydol gas who has a flying "A" symbol, Sylvania with their man on a flying carpet. "Nothing happened for a while and I was worried," says Leigh. "Then suddenly MGM, Ford, Mobilgas—and soon after Sylvania, even Wonder Bread all said 'yes.' Our ships would be flying today but the Navy needed the hanger space. We still have one high altitude type blimp on hand—and I expect to have it working—in Spanish—over Mexico City in the near future."

The multiplying Leigh fortunes are not without difficulties. His biggest problem, he admits, is minding his own business. The active Leigh mind creates so many ideas—many of them outside the sign business—that he feels obliged to do something with them.

"The best advice I can give anyone is to stick to the business you know best, no matter how sure fire the other idea seems. In 1951 after I had built a considerable sign business, I thought it would be a good idea to use our know-how to merchandise a product. We picked Flamingo Orange Juice and gave it the full treatment—spectaculars, TV spots, blimps, truck posters, etc." Soon the 240 foot flying flamingo with a 24 foot orange in its mouth and the Flamingo calypso TV jingle were quite familiar and sales skyrocketed. But Doug Leigh still took a tremendous financial shellacking—dropping, rumor says, upwards of a half million dollars. "The profit spread just wasn't enough in the competitive frozen juice market," he says, "and it took a lot of valuable time away from my regular business."

With the exception of this disastrous excursion into a side line, Leigh has done very well financially. Now that he's "made it", his long-starved tastes for expensive clothes (he likes to take inventory of his 50 suits and 10 tweed jackets, "all imported from England," he adds) and posh New York nighteries (Sardi's, the Stork and other typical roosts of the

successful and well-heeled). For a small town boy, he's pretty sophisticated about his sports, hits the slopes at Sun Valley and Kolsters, Switzerland whenever he can. Just to let the tension off, he water skis on Long Island Sound during the summer behind an 18-foot power boat.

Of late "spectacular king" Leigh has been busy merchandising, enlarging his "architectural sign service." The Northwestern National Bank of Minneapolis consulted him not long ago. "Our competitor across the river in St. Paul has a lighted sign that attracts all the attention. We need something," they told Leigh. He weighed various spectacular gimmicks—shooting stars, brilliantly lit waterfalls like the one he built for the Bond and Pepsi signs, clocks, etc. He finally decided on the now-famous weather ball. Every evening, a great part of the citizens of Minneapolis go out on their lawns to look at the giant lighted plastic ball atop the Northwestern Bank Building to get the forecast for tomorrow's weather. The ball, equipped with hidden neon, shines red for warmer, white for colder, green for no change, and flickers for snow or rain.

For twenty years and more deceptively ingenuous Doug Leigh has been startling the nation as the outdoor showman for industry, and he has a number of flashy tricks still up his Madison Avenue-tailored sleeve. A few months ago he made inquiry at Bethlehem Steel on the construction price for a steel "kiosk" and TV transmitter almost twice the height of the Empire State Building. He has been accumulating ideas for a permanent World's Fair, possibly in Florida. For years he has had his eyes on surplus aircraft carriers now in mothballs. "A flat-top equipped with industrial exhibits could travel around the world as a floating United States fair," he says enthusiastically. Spectacular-wise, he has plans for a sign even larger than his Pepsi masterpiece—a sign that would actually jump, with lights, from one Broadway block to another.

Leigh critics pooh-hoo some of his "wild" schemes, claiming he is a practitioner of the art allegedly perfected by Real Estater Bill Zeckendorf—tossing out architects drawings and broad imaginative schemes to the public just to pick up reams of publicity. They refer mainly to Leigh's drawing of "Times Square of the Future" showing such Leigh gimmicks as a helium-filled orange suspended over Broadway dripping juice into a five story glass, a building in the shape of a perfume bottle wafting scents over Times Square, and in the background, the Empire State Building with its tower converted into a glowing, smoking cigarette.

In any case, those closest to the clever "Sign King" have confidence that these and still other commercial dreams will come true. At any rate, as the great advertising splurge continues, Doug Leigh will ride the crest of the wave. He's sincerely convinced of his mission, perfectly constructed in personality and ideals for the job. Whether he'll put a Prudential (Rock of Gibraltar is the trade mark) "spectacular" on the actual Rock is anybody's guess. If he did, he'd surprise no one. •

OTHER CLASSIFIED ADS ON PAGE 62

FASTEST MAN ON TWO WHEELS

Continued from page 15

good enough to shove the world's record up to 180.20 mph.

Then, after this display of arch conservatism, the company stopped dead, clashed into reverse, and took off in a completely different and, for it, a reckless direction. It started one day when a young man named Gustav Baumm appeared at the company's engineering offices and began selling himself and his ideas to the company brass. Baumm was a professional character, 30 years old, frail, blond, bushy-bearded, an ex-engineering student who had been making a bare living painting and selling cartoons to motorcycle magazines. Many of his cartoons were exaggerately futuristic and often hilarious drawings of high-speed machines. "It never occurred to us," says the editor of one of these publications, "that Baumm was serious even when he was joking."

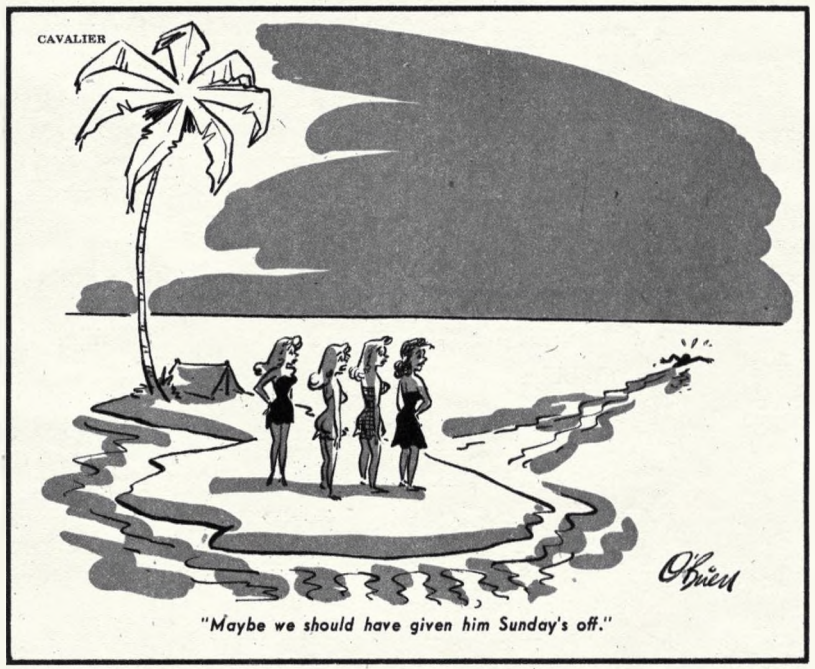
When Baumm came to NSU he came not as a cartoonist but as a serious inventor with ideas for a record motorcycle years ahead of the Dolphin. "What you need to really cheat the wind," he told them, "is a deckchair on wheels. The driver should recline, almost as if in bed. The frame of the machine should be long and the engine should be mounted behind the driver, on the same level as the seat. Put a cigar-shaped shell around this package and you'll have the next best thing to breaking records in an absolute vacuum. Wind resistance will be absolutely minimal."

NSU had been through this before with the Fachsenfeld machine. "Perhaps what you say is true," an engineer said, "but experienced racing drivers never will accept the low, between-the-wheels seating position."

"No problem," said Baumm firmly. "If you let me build it I'll ride it myself."

Baumm spoke with great intensity and enough authority for the NSU brass to agree to watch a demonstration run. Baumm had no money for building a model, but he did have plenty of ingenuity and guts. He found an old ironing board in his landlady's basement and he promoted some junk bicycle parts: wheels and a front fork. He glued them all together, added a large dash of his special brand of moxie, and a week later he glided the contraption down a hill with the hard-headed bosses of NSU watching. And they bought it.

It wasn't long before the NSU brass knew they'd made the right decision. The complex-contoured, unorthodox "flying deckchair" that Baumm built for NSU had less wind drag than anything in their experience. Still, nobody knew how it would behave at high speeds. Cautiously, Baumm began learning his creature's habits, using the tiniest power plant possible, one with a displacement of 50 cc or three cubic inches. (The smallest '57 Ford V8 has 272 inches). With this "toy" one-lung engine, the bearded eccentric set a new international class record of 94 mph! Still using thimble-sized power plants he proceeded to rack up some other incredible recordbreaking speeds—one of them, for example, was 135.5 mph with a 7.6 cubic inch (125 cc) engine. But late in



"Maybe we should have given him Sunday's off."

1955, practicing in his own machine on a closed, hilly race course, Baumm came over a rise at about 50 mph and turned right when he should have turned left. It was a cockpit error rather than a mechanical failure, and it was a fatal one. Baumm was killed.

Although this event shook the many people at NSU who had come to have an almost reverent respect for Baumm's genius, it did not dissuade them from picking up the gauntlet that the Texans had tossed on the salt. Early in '56 the company began girding its massive corporate loins for a trip to Bonneville and late in July the giant retinue arrived.

It was practically an invasion. Flown and shipped from Germany, Switzerland, Austria, France and Holland were no fewer than 50 experts, including nine mechanics, two engineers, three timekeepers, and the directors of the company. The rest were journalists, photographers and radio commentators. The latter made direct shortwave broadcasts to Europe over the Voice of America and made up canned broadcasts on tape. Everything was set to run smoother than silk. The press was supplied with publicity kits and hospitality. The engineers and mechanics toiled without rest. Observers with telephones were stationed at one-mile intervals on the 13-mile straightaway and each had a portable anemometer for measuring the wind velocity. There was only one thing wrong. The salt wasn't ready. Deluged every winter, it seldom gets really hard until late August. Unfortunately, this was a fact that NSU men didn't learn until they made the first runs—too late for them to go home and come back another day.

There were three machines in the caravan: one Dolphin and two versions of the Baumm machine for engines over and under 15 cubic inches (250 cc). There were two drivers. One was H. P. Mueller, a man who had been motorcycle champion of Germany seven times and who had spent more time on the weird, handlebars-under-the-rump Baumm machines than anyone but Baumm himself. It was his job to pilot the smaller Baumm vehicle, and this he did with great success, setting 38 international records in the process, including one at 150.3 mph with a 7.6 cubic inch single-cylinder engine.

The other driver was tall, blond, eagle-profiled Wilhelm Herz, and he was the boy that everyone was watching. His job was to take the record for absolute speed.

And he looked like just the guy to do it. At the end of World War II, when hungry Germans were scrounging ruins for bits of food, Herz was scratching through the rubble of the NSU factory looking for pieces of the company's powerful pre-war racing engine, the one that was now in the Dolphin. And he didn't stop looking until he found them all. When motorcycle racing revived in Germany a couple of years later, he had the best engine in the country and it helped him to win the national championship for several years. Herz was the man on the Dolphin when it set the 180 mph record. Once his forearm had been mangled in a racing crash, and doctors told him he'd probably never be able to grip and hold a pair of handlebars again. So Herz got a job in a bakery and for two years he kneaded bread, slowly and painfully restoring the muscles and tendons in his shattered arm. Then he was ready to race.

Now, on the salt, he was ready again. The first try was going to be with the bigger Baumm machine which seemed perfectly capable of tapping the Texans' 193 mph. Herz was strapped and buttoned into the little torpedo and pushed off. He went winding down the black line on the four-mile approach to the timing traps, supercharged engine screaming like a buzz saw up to 8500 rpm in each of its four gears, accelerating every second until the machine was a roaring, 180-mph projectile. Then a sudden gust of wind slapped its side, hard enough to turn it slightly off course. Herz corrected the steering—a shade too much. In a split-second the rocketing two-wheeler was crashing over and over sideways. Then it made a final end-over-end flip and skidded a quarter-mile to rest.

Anyone who has seen a car flip over at a couple of hundred miles an hour knows it's not nice. Pieces go flying off in all directions and the driver is lucky if the frame holds together and he comes out alive. But Baumm had been an amazing engineer. The little deckchair was scarcely dented. When help arrived Herz simply snaked himself out of the close-fitting shell, permitted himself to be felt for

broken bones, accepted congratulations on his unbruised condition and began discussing the machine's performance with the engineers.

A few days later he was zipped into his leathers and ready to go again, as cool and calm as if he knew he had nine lives, with eight still to go. The Baumm machine had been forcibly retired and this time he was on the bulky Dolphin, straddling the 30.5 cubic inch supercharged engine. Again he made a good start. But again, at around 180 mph, he got off the beam. This time he didn't try to correct, but let the bike follow its nose instead. In all the vast emptiness of the salt the nose picked one of the timing light-beam tripods to tangle with, but Herz' baker's muscles kept the dented streamliner under control and he coasted to a stop standing up.

This left him with seven lives, and Herz stayed cool. On August 4 he pushed off in the big Dolphin again. This time there were no incidents. He roared north, through the clocks, then south, for a two-way average of 210.65 mph and a new world's record.

When you get up into such far-out speed ranges, every additional mph is harder to get. In these terms the near-211 was so much faster than the Texans' 193 that it looked like a record that would stand for years. NSU was well pleased; Mueller and Herz had rewritten the whole record book handsomely. The Germans picked up their marbles and flew home. Within days after they arrived they had a new company slogan: *schnellstes motorrad der welt*—fastest motorcycle in the world.

But Stormy Mangham was not impressed. When the salt hardened to a concrete-like surface, he arrived at Bonneville. With him came Johnny Allen in bib overalls, screaming sports shirt and Ivy League cap. Jack Wilson was on hand again to make the engine go. The salt was good, the driver was good, the machine was good. The engine was bigger (40 cubic inches, 650 cc) than the German's but, lacking a supercharger, it was effectively smaller. It was just a mass-produced engine but it was beautifully tuned and a 50 per cent blend of pungent nitromethane in the alcohol fuel gave it a big slug of quick, cheap, bonus horsepower.

Again Allen wore grooves in the salt charging up and down at 190 mph or so while more experiments were carried out to perfect the machine's handling quali-

PHOTO CREDITS

Page 8t, INP; Page 8b, WW; Page 9t, INP; Page 9b, INP; Page 10t, bl, br, INP; Page 11t, WW; Page 11bl, WW; Page 11br, INP; Page 22, 23, Richard Harrington; Page 24, UP; Page 25l, WW; Page 25r, WW; Page 26, UP Page 27t, WW; Page 27b, UP; Page 32l, INP; Page 32r, INP; Page 33t, Harold M. Lamber; Pages 34, 35, INP; Page 38t, br, 39, WW; Pages 42tl, r, 43, Imperial War Museum.

ties and balance. Allen never got into serious trouble and finally, by moving lead-brick ballast around in the 650-pound streamliner, the boys arrived at a weight distribution that for the first time made the Texas cigar fly straight as an arrow.

Just after 8 o'clock on the morning of September 6, Stormy Mangham blew a puff of cigarette smoke into the air to test the wind. It was calm enough, and he gave Allen the nod. The machine was pushed off, chugged hollowly for a few hundred feet. Then the engine began to breathe. The machine screamed down the black line on the white lake bed, became a speck in the distance, dropped below the horizon.

Then, back it came—a roaring, blue and white blur that flashed past the finish line, a bright orange parachute billowing out behind for a brake. Allen's time: an incredible 214 mph.

This time there were no mistakes in the "official" nature of the record runs. The United States Auto Club handled the timing and the president of the International Mortorcyclists Federation, *the* last word in official sanctioning, had stayed over after the NSU runs to see what the Texans would do. There was no question that, for the first time since 1920, the USA held the world's motorcycle speed record.

How long it will stay here is a subject that has evoked a good deal of conjecture in the U. S. and overseas. Some experts say that a Baumm machine with the bugs worked out will start the battle all over again. Others say that Mangham's streamliner is inherently a much better aerodynamic design and that the Baumm projectile wouldn't stand a chance against it.

One guy who isn't worried is Stormy, the Texas tactician. "What we were interested in was pushing the German record a shade higher—not in pushing the machine as fast as it would go," he says. Before the record run he instructed Allen to take the bike up to a certain rpm reading on the tachometer and no higher —just enough to take the record away from NSU but still keep it tantalizingly close, to stimulate more competition for the world title.

"But the Germans are going to go all out to get that record back," I said to him. "What happens when they do?"

"Why then," he drawled complacently, "we'll just have to go back to the salt and open the throttle a little more. Johnny's only used half-throttle so far."

Note: Author Griff Borgeson recently received a letter from NSU on the company's reaction to Allen's record-smashing run. It said: "Wilhelm Herz was so excited when he heard of Allen's new world record that he instantly looked around to find a road which would stand high speeds. In his bewilderment he was even ready to start on a typical washboard road.

"We from NSU, however, did not want to take any chance. We, therefore, cut down any efforts aiming at new record attempts. No decision has been made concerning world records. One thing is sure: nothing will happen this year." •

THEY BUILT THEIR COFFINS SMALL

Continued from page 43

Just a few days earlier he had acquired a good friend as his second in command: Sub Lieutenant W. J. L. ("Kiwi") Smith, a New Zealander who quietly and capably went about his business with never a hint of panic. He alone had escaped a few months earlier when his own midget had plunged beyond her depth off Sydney harbor while practicing with a giant cable cutter in her bow.

The *XE-3's* 48 feet were divided into three approximately equal compartments. Forward were ballast and trim tanks, batteries for running submerged, reserve fuel for the diesel engine and assorted stores. In the crew's quarters, the diver sat over his charts just under the forward escape hatch and airlock. The *X-3's* diver, Leading Seaman J. J. ("Mick") Magennis was a great ox of an Irishman, as much at home in the water as he was on land, one of those men, Fraser had discovered, who cannot and will not admit physical defeat. They would have need of this strength.

Behind him sat the coxwain at the steering controls, Engine Room Artificer Charles Reed, a quiet English boy whom Fraser had selected for another kind of strength, a mental kind of courage in a way: the ability to stay awake for 48 hours and regard each instant on the controls as the most important of his life—all question of fatigue and sleep aside.

Fraser himself at the periscope came next in the compartment. At times he had to lie flat on his belly for low-level periscope work. Smith sat behind him, handling the hydroplanes, pump and main motor controls. Behind him was the main ballast tank, fresh water, a small hotplate for cooking, the air cooler and pumping plant.

The aft compartment contained the electric motor, diesel engine, fuel, after trim and ballast tanks. The explosive charges were carried in cases attached outside on either side of the deck. *X-craft* were not equipped with torpedoes; that was "too much bow-and-arrow work." Explosive time-charges actually attached to enemy hulls were surer by far, and they gave a margin for unseen escape. But again, hull work meant lying under the enemy, it meant more time in the harbor; it meant more chance for something to go wrong.

Fraser sat in the conning tower peering into the night with his binoculars as the *XE-3* ran on the surface toward Singapore, churning up a small white wake behind her. Within an hour they had come to one of the minefields protecting the port. Fraser entered it deliberately, considering the shipping channel a greater risk.

Gingerly the *XE-3* pushed ahead. Just before 3 a.m. Fraser sighted a tanker and armed escort in the distance and dove hurriedly. He surfaced 30 minutes later and climbed to the conning tower.

"Kiwi," he called down an instant later in what seemed to be a calm voice.

"Sir?" Smith answered.

"Take us down again just a bit, will you? We seem to be resting against the spikes of a mine."

The *XE-3* gently dipped awash. The three men turned to gaze at Fraser in wonder, suspecting some sort of joke. "It didn't go off," he answered evenly.

About 5:30 a.m. they passed out of the minefield, to the considerable unspoken relief of everyone. There was a confidence on the four faces now. The incident of the mine had been a kind of token from the gods of war, Fraser thought, a token that this mission could not fail.

At 10:30 a.m. the *XE-3* had sighted the trawler guarding the gate in the anti-submarine net. Fraser ordered his craft to the bottom for a rest period. Reed passed around a box of cookies for breakfast, but there was no talking.

Finally Magennis stood up in his seat and began to check his frogman breathing apparatus. "Ready for net-cutting, sir," he said.

"I was just thinking about that," Fraser answered.

They had all been thinking about it. About whether the Japanese had attached any kind of alarm system to their nets. Since they had been the first in the war to employ midget subs, it seemed likely that they would be alert to the danger of sneak attack, especially at important harbors such as Singapore. But nobody knew.

"How would it be," Fraser said suddenly, "if we followed a ship right up to the gate and then passed directly under the trawler?"

"Bit shallow there," Kiwi Smith answered.

"How shallow?"

Smith consulted the charts. "I make it thirty-five feet, with a light sand bottom," he said.

The audacity of driving head-on at the guard ship slowly penetrated to the other members of the crew. Fraser munched a cookie. "If there is any objection to this plan please say so now," he announced quietly. He gazed at each of them. "All right, stations. Mick, let me know as soon as anything passes overhead."

They sat in silence for some minutes. At 10:43 Magennis, with earphones clamped to his head, said: "Fair-sized ship just above, sir. Going into harbor."

"Up to periscope depth, please."

Fraser gazed through the periscope for 30 seconds. "Down to thirty feet. Our trawler is dead ahead."

The tiny submarine moved silently ahead on her batteries for about five minutes, each man grimly intent on his own job. "Let's bump the bottom now, Kiwi," Fraser said.

Smith tipped the hydroplanes down until the inclinometer read 37 feet. In a moment there was a gentle jar. "Now up a few feet and don't mind if we bump again. The Navy has a good deal of paint at Sydney."

Slowly, bump by bump, the *XE-3* slipped into Singapore harbor, probably directly under the guardian trawler. Any Japanese sailor who had happened to glance over the side could have seen her dark shape against the light sand bottom there. But none did.

"Up periscope," Fraser said, stretching himself flat on the deck so that the periscope would only just break surface. The tension could be felt as the nose of the submarine tilted up. "We are now inside," Fraser said without emotion. "Down to twenty feet please."

The crucial problem was navigation. Singapore is a big harbor, alive then as now with shipping and small boats. To avoid detection it was necessary to keep in the deepest part of the main ship channel; but it was busiest here, with a constant danger of being sighted when they poked up periscope to check their navigation against landmarks.

All went well for the first hour. Fraser had trained his crew for months on this blind, dead-reckoning navigation of Singapore harbor. He knew in his mind just exactly the three points where he could risk a visual check.

"Mick," he said finally, "what's above?"

"All clear for the moment."

"Craft trimmed, sir," Kiwi volunteered.

"Good. Two hundred and fifty revolutions. Periscope depth, please." Again the four men waited, as the submarine nosed closer to the surface and Fraser got down on his knees. "Take a fix. Point bears Green one-zero-nine," he said from the periscope. "Point bears Green sixteen."

"Ship's head 351," Reed at the controls said.

"Give me a course to reach position BB. Alter course at exactly eleven thirty-seven. That's three minutes from time of fix."

Kiwi calculated rapidly. "New course two eighty-five, sir." He paused. "Just as charted."

Fraser sighed. The navigation was perfect so far. "Launch dead ahead, two cables distance, straight for us. Flood *Q*, thirty feet."

And the submarine went down again. A smile came to Fraser. We mustn't get overconfident, he thought, but it is really working out very well. "Good show," he said.

The *XE-3* poked its way cautiously up the channel. Occasionally it flashed into Fraser's mind to wonder what had happened to *XE-1*. There had been no depth-charging yet so apparently she was still all right, if she had been able to enter the harbor. Fraser mused on the million-to-one chance that the two subs might collide as they threaded their way blindly toward their separate targets, then he put it out of his mind.

At 12:25 p.m. he ordered the craft up for another visual check. As Smith was calculating the readings against their charted position, Fraser said quietly: "I can see the *Takao*. She appears to be in place."

He heard Mick Magennis grunt in relief and satisfaction. That had been another of their worries: the *Takao* might have moved her anchorage since the last aerial photo, necessitating a dangerous and time-consuming search for her in the harbor with the periscope up. Or worse, with her sister ship she might have left Singapore altogether, and they would have then come for nothing.

But no, she was there. The *Takao* with her eight big guns as main armament, and the pagoda-like superstructure which

made her look top-heavy, was still there. Waiting for them at anchor, peaceful and unsuspecting.

At 2 p.m. he put the periscope up only 30 yards from a liberty boat filled with Japanese sailors. "Down!" he bellowed, and the submarine dove until it jolted rudely on the harbor floor, and Fraser ordered the motor stopped.

The three men gazed at him in apprehension as he sat back on his chair and very conventionally mopped his forehead with his handkerchief. "I don't know whether anyone saw us," he said. "I can hardly imagine that they didn't. But I suppose in any case we'd best get on with it." He paused to look at them. "I don't know," he said. "But I *think* the *Takao* was dead ahead beyond the liberty boat. I don't think we ought to take another look, in any case."

Smith started the motor. "Slowest speed," Fraser said. "We'll go ahead about sixty yards and then let Mick out to tell us where we are."

Slowly, slowly the *XE-3* skidded and crunched along the floor under Singapore's green water. The air began to grow foul in the compartment but there were other more important worries. "We must have missed it," Fraser said finally. "Stop motor, Mick, if you can find our Jap out there jockey us into position. Two raps on the hull with the wrench for port, three for starboard."

However, in the next instant, metal rammed into metal, and the submarine shivered into motionlessness. The startled faces of the four men broke into grins. "Well, we've found her," Reed said.

"Saved you a little work, Mick," Smith said, as Magennis began to pull on his web flippers.

"We may not be right yet. Start motor," Fraser ordered. "Ahead slow." In a moment the submarine jarred against the enemy cruiser again, more gently this time. "I thought so. We must have bounced back fifteen feet. The grappling antenna isn't working. Mick can't push that warhead all that distance to attach it."

The situation was clear to all of them. The *XE-3's* weapon cases outside consisted of (a) limpet mines which Magennis, the diver, could carry one by one to clamp onto the cruiser's hull, and (b) the huge warhead, the main weapon, which would rip the *Takao*, wide open if properly attached to her keel. The thought passed through all of their minds: the water was shallow here and Mick could tug the warhead somewhere close to the bottom of the cruiser. The force of the explosion would still have some effect.

But all of them knew that Fraser was not this kind of man. "What time is it?" he asked.

"Two-twenty p.m., sir," Reed said.

"The tide is beginning to ebb," Fraser said. "I consider it indispensable that we hold this ship alongside the *Takao* so that the warhead can be attached. Since apparently our grappling apparatus is not functioning, I propose to wedge this craft between the enemy and the bottom of the harbor, if we can. There is a danger that we may become stuck as the tide

ebbs and the *Takao* will crush us. Do I hear any objections?"

All of them thought how easily the 10,000 tons above them could crush the fragile hull of the submarine, thought too of what the Japanese would do even if four men managed to escape out one of the hatches. A captain of a ship which has been blown up by stealth in its own harbor is, after all, naturally a bit put out at the men who have done it. And—Japan had not signed the Geneva prisoners of war convention.

But there were no objections. Fraser had expected none.

At 2:40 p.m. the *XE-3* buried herself in the mud under the cruiser. Fraser attempted to back away. He could not. "All right. We are in position," he said.

Magennis was ready. He climbed up the ladder into the airlock and flooded it. He tried the hatch. It would open only a few inches. He tried again, and pushed furiously. The hatch was wedged against the hull of the *Takao;* it was only about a quarter open. Magennis tried again and again for about 10 minutes, as the other three men inside waited anxiously, aware that something was wrong. At last Magennis deflated his breathing apparatus and exhaled until his chest was small. He pulled himself into the opening and painfully skinned through.

Inside, the three men breathed in relief when at last he rapped on the hull once with a wrench.

Magennis first attached the warhead. It was simple enough. He then opened the limpet case on the starboard side of the sub, but as he was doing so he noticed that a steady stream of bubbles was escaping to the surface, His suit had been damaged in squeezing through the hatch. The bubbles were a dead giveaway to any lookout on the surface. But what was there to do but go on?

He took a limpet in each hand and swam away. He found the base of the *Takao's* keel strangely sloped, unlike European ships. Magennis cursed. Now why hadn't Intelligence known a simple thing like that? The magnets would hardly hold the mines at this angle—unless. . . He scraped away the barnacles with his hand. Yes, perhaps he could wedge them so that the barnacles helped the magnets cling to the metal. It would serve the Japanese right for not keeping a cleaner ship.

Magennis took a full half hour to place the six limpets, three on each side, 15 feet apart, each attached to the other with a line. After each limpet was placed he would rap once on the hull of the submarine to let them know that all was still well. The barnacles were rough on his hands. He had not counted on huge barnacles like this, and his suit was leaking. At last the water had almost filled his thin, black rubber suit. He had swallowed what seemed to be gallons of it.

I can't make it back, he thought, but he placed the final limpet. And then he did make it back. The hatch was harder to open from the outside, but he got it open too. And he squeezed inside, and he drained the compartment, and fell almost unconscious into his seat in the submarine.

Gently but swiftly the other three men stripped his suit from him. Reed touched his bleeding hands with iodine, and Magennis jumped back to consciousness. He grinned. "What the bloody hell," he said. "We aren't still here, are we?"

"Not for long," Fraser said with an admiring smile. "Start motor. Full astern."

The motor started, and it raced at maximum RPM. But the submarine did not move. "What time is it?" Fraser asked.

"Three twenty-five p.m."

"Try full ahead and then astern quickly."

The tide was ebbing fast and the *XE-3* was stuck. The ship above weighed 10,000 tons; the ship below weighed 39 tons. Its plates were not even an inch thick. We're stuck, Fraser thought. We have had it.

For 50 minutes the sub *was* stuck. It faced full ahead and full astern, pumped and blew out. As the tide receded. It went on for 50 minutes. Back and forth, and no movement. The faces of the four men were expressionless. But they knew; this was the end. Still, no one glanced up at the escape hatch.

Suddenly, for no reason at all, the submarine shot free astern and blasted almost to the surface. "Down, down!" shouted Fraser.

"It is!" Smith answered.

Slowly the hydroplanes took control and the sub regained trim and then dropped leadenly to the bottom again, as Smith cut the motor. They lay silent and listening.

"Nothing," Magennis said.

"Let's get out of here," Fraser said. "That must have sent a huge spout of water to the surface not 50 yards from the cruiser."

"I think it's a miracle we got out at all," Reed said.

"We're lucky," Magennis answered with a wry smile.

But the *XE-3* was not that lucky. The limpet container would not detach. Fraser flipped the lever again and again. The empty container unbalanced the sub, and it would not detach.

"I can't hold trim, sir," Smith said desperately. "It throws us off. We're apt to surface."

"Stop motor," Fraser said, and sighed wearily. The submarine settled back to the bottom again.

"It's so shallow here. We don't have more than fifteen feet."

"I know," Fraser answered. He got up suddenly and began to pull on the thin black rubber diver's suit. Magennis was a bigger man and subsequently the suit flapped about Fraser's legs. They looked at him stupidly.

"What are you doing?" Magennis said. "I can't have that."

"You can't go."

Magennis looked at his stained red hands. "Of course I can go. *You* can't go. You don't know routine one out there. Can you even swim?"

"Of course," Fraser answered.

"Doesn't matter. Get out of the suit."

Magennis was an enlisted man, but

he was a diver and Fraser was not. At the bottom of the sea there were only men, and they were all enlisted in the battle for life. "Are you sure?" Fraser asked.

"Get out of my way!" Magennis cried, pulling the suit off his commanding officer.

Fraser helped him. In a moment Mick was dressed. Reed handed him the wrench. He climbed the ladder into the airlock. There was no trouble getting out, but there was trouble releasing the limpet container. The three men listened quietly as Magennis hammered at it in a rage. Perhaps the enemy above was also listening to this racket. Sound waves carry so easily in the water, Fraser thought. And still Magennis kept hammering. And then there was silence. And then a single clunk on the hull, the signal of victory. A minute later Magennis was with them again, white-faced and glassy-eyed, his hands bleeding again. He said nothing this time as they stretched him down on the floor.

"Full ahead," Fraser said.

But it was no headlong flight. They had to get out as carefully as they had come in. They had to navigate blindly with as much accuracy, and punch the periscope into the air above twice more to confirm the calculations and chance the enemy, and again they made it. Through the hydrophone positions, and the heavy traffic, and under the guardian trawler and the minefields. They rejoined the *Stygian* 52 hours after leaving her. Reed had been at the helm, following the course accurately for 30 hours, during which they had been submerged 16 hours at a stretch. They almost passed out from the foulness of the oxygen alone.

The charges exploded under the *Takao* at 9:30 p.m. that night, ripping a 60 by 30-foot hole in the hull, putting the turrets out of action, flooding several compartments, and damaging the rangefinders. The cruiser settled to the bottom of the harbor, to remain there until the end of the war.

It is interesting to note what happened to the *XE-1*. Delayed by encounters with surface craft, she had passed under the boom after Fraser. The *Nachi* was moored distantly, however, and the coming of darkness would have prevented the submarine's escape. So the commander of *XE-1* laid his warhead on the harbor floor near the *Takao*, forgot his limpets and fled for the open sea. It was an entirely natural course of action.

But the Victoria Cross was not de signed to honor a "natural" course of action. It is for unnatural courage, judgment and achievement. Fraser and Magennis both were awarded one; Kiwi Smith and Reed got DSC's.

Possibly because this model operation showed the way the U.S. Navy in 1955 announced that it was building a midget submarine prototype not greatly different from the *XE-3*. The U.S. Navy, which had laughed at the Japanese midget subs for their failure at Pearl Harbor, had at long last decided that men could make the difference. And this nation may, some day, be very grateful for the lesson taught so well by Fraser at Singapore 12 years ago. •

HE BUGGED THE BIGGEST CITY

Continued from page 25

to end the long and lurid career of the Biggest Ear. He'd indicted Broady once before, but a confused jury had acquitted the lawyer-detective of one charge and disagreed on the other counts in the indictment.

For Broady, the new charges meant a barrage of bad publicity ripping the screen from his activities; the prospect of a second round in court with his nemesis, the District Attorney, and the need to come up with a story to convince a jury that he was, as he claims, just a "country boy at heart," trying to make an honest buck as a lawyer.

He must have thought he could do it, for he had been getting away with a lot of guff for many years. Nicknamed after the notorious Steve Brodie who was supposed to have dived off the Brooklyn Bridge on a bet and lived to collect, John G. is a lot like that legendary character—bold and brazen, with a knack for surviving close calls. To gain his way, or his fee, Broady has been accused of doing everything—lying, stealing, twisting the law, weeping, or slugging it out with his fists.

John G. Broady was born in Adams County, Iowa. His mother and father were both country doctors, strong, stalwart people with a pioneering spirit that kept them on the move a lot. They moved into the untamed Territory of New Mexico when Steve was four-and-a-half years old and shifted around a lot throughout the Southwest all during his boyhood. He led a hardy, outdoor life and learned to ride, rope, shoot and take care of himself in a scrape.

Broady was about 21 when he first saw the lights of New York back in 1924. He was fresh out of Ohio State with a BA in Chemistry and a Phi Beta Kappa key. He stayed the night at a Salvation Army shelter and shipped out as a deckhand on a freighter the next day to see a bit more of the world.

The Big City hadn't scared him. Even though he'd never seen it before, it was in his blood. Both his paternal grandparents had come there from Sweden to settle in a long-ago time when New York City was a gentler place, the buildings not so tall and crowded, the people not so frantic. But Broady knew he wasn't ready to tackle New York yet, and all he wanted and could afford at that moment was a quick look-see to make sure the booming town was all it was cracked up to be.

When he got back from that freighter trip, he began his legal training at Harvard Law School. He didn't finish up there, though, and if you ask him why he left Harvard, he'll tell you, readily, "Because I was working my way through and I found it tough to make a living in Cambridge."

Then talk to one of his classmates and you'll learn that hustler Steve had set up a cribbing and cramming class for the less brainy students and was charging them dough for it—very much against the school rules, and highly disapproved of by Dean Roscoe Pound, who promptly tossed him out.

This didn't stop Broady, though. He went up to Cornell for a while, and then, finally, down to Columbia Law School in New York City, from which he graduated in 1928. Among his classmates was Frank Hogan!

Broady's move, after he was admitted to the bar that year, was an extremely critical one, because it affected the entire course of his career. He joined the law firm of Stanchfield and Levy one of whose clients was Gene Tunney, heavyweight champion of the world. Tunney had a couple of gigantic lawsuits pending against him and they were to come to a head just at the time when they could do the most good for the brilliant young Broady and he could do the most good for them.

This was in the heyday of the breach-of-promise suit, wherein any pretty girl who'd been dallied with and thought she could mulct the man who'd deflowered her out of his dough, would scream, "He promised to marry me, but didn't!"

No sooner had Gene Tunney retired from the ring with a fortune and married the beautiful heiress to whom he has been happily married for 28 years, than a wench named Katherine King Fogarty hit him with a $500,000 breach-of-promise suit.

Young Steve Broady was put on the case to help defend Tunney and got his first chance to show his stuff as an investigator. It was tame compared to later cases, but Broady tore the Fogarty woman's life apart piece by piece, followed her from the cradle up and ran her practically into the grave. He traced the supposedly-wronged woman into every hotel room and rendezvous she'd ever had. He ruined her and saved Tunney.

The second lawsuit against Tunney was to lead Big Steve Broady right into the lion's den. A Philadelphia gang czar named Max (Boo-Boo) Hoff claimed to have a contract on which he was due 20 per cent of Gene's ring earnings after he first beat Jack Dempsey in 1926 and became champ. Boo-Boo's story was that the agreement had been signed in Tunney's dressing room at Sesqui Stadium in Philadelphia just before the fight, in exchange for $20,000 cash and certain unspecified services from him. When no money was forthcoming, Boo-Boo laid aside his pistols and resorted to legal redress. The case had been kicking around the courts for about three years, when Steve Broady went to work on it from a completely different and, unorthodox angle.

Broady figured that if Boo-Boo Hoff had something on Gene Tunney that

made him think he would win his case, the best attack was to get something even worse on Boo-Boo. To accomplish this, he descended into the depths of the Philadelphia underworld posing as a New York hoodlum on the lam.

One of the thugs he met there was Mike Duffy, from Camden, N. J., who was then recuperating from a mysterious and near-fatal shooting. Broady had an idea that it was Boo-Boo Hoff who had ordered the muffed assassination and decided to prove it. He ingratiated himself so well with Duffy that he was invited to the Camden gorilla's home as a houseguest.

"I had to live with Duffy for a while," he once reminisced. "He had a great big house and in his bedroom there was a panel which showed when anyone tampered with any window or door in the place. An arrow pointing to the spot would light up."

Mr. Duffy was obviously not a trusting soul, but he came to trust Steve Broady—so much so that Broady finally convinced him that it was his erstwhile friend, Boo-Boo, who had ordered him blasted. He proved it to Duffy's satisfaction by showing him how bullets from a gun which the police had connected with Boo-Boo in another fracas matched the bullets taken out of Mike by the doctors.

"I'll kill the son-of-a-bitch," Mike snorted, and packing a gat, he headed for the door.

Broady stopped him. "That's not the way, Mike," he advised. "You'll be lucky if you get to him, what with his bodyguards and armored car, and even if you do, you'll have the cops to face after that. If you want to get him, do it my way. It'll be more effective."

Broady's way was for Mike Duffy to spill all he knew about Boo-Boo—murder, bootlegging, robbery, everything—and sign it. Steve then made a copy of the confession, left the original in secure hands with orders that it be mailed to the D.A. if anything happened to him, and went to see Hoff, where he revealed his identity and his reason for being in Philly.

"I'm worth more to you alive than dead, Boo-Boo," he said, tossing Mike Duffy's statement at Hoff. "This is my life insurance."

The suit against Tunney was dropped. Some time afterward, Mike Duffy was found dead, riddled with bullets.

Ask Steve Broady what it was that he did when he worked for Stanchfield and Levy and he'll tell you, blandly, "I specialized in trial preparation." In fact, ask him what he did all those years after he went out on his own and before he was disbarred, and he'll tell you, "Trial preparation."

But, "trial preparation" for Steve Broady covered an amazing assortment of duties, including playing footsy with the upstairs maid. Look what he did back in 1934 and '35 for Clendenin Ryan, Jr., grandson of Thomas Fortune Ryan and heir at the time to $9,000,000. It was the first case where Broady received publicity—or rather, notoriety. Before that,

OTHER CLASSIFIED ADS ON PAGE 51

his work had gone unsung—heralded only by fat bonuses from his law firm's clients.

Ryan, then actively engaged in politics as the late Mayor Fiorello LaGuardia's secretary, married a 19-year-old Viennese beauty named Countess Marie Ann von Wurbrand-Stuppach. Like so much of Europe's dying royalty, the poor little girl and her family were broke. All she had was her blue blood and ample natural assets, which sufficed to hook young Ryan. However, Ryan apparently did not trust his wife from the beginning.

He brought the strapping 30-year-old Broady to the Hotel Pierre suite where he had installed his bride, and introduced big, handsome Steve to the Countess's maid of many years standing, German-born Dorothy Pawlowsky—a simple, starry-eyed and rather unattractive soul of 36.

Steve went to work with a will, proceeding with a rapid "courtship." He had an apartment at 10 Sheridan Square in Greenwich Village then and Dorothy visited him there often. But while he was making her happy, promising to marry her as soon as he could get a few weeks' time for their honeymoon, there were a few things that he wanted to make him happy, too—copies of all cables, telegrams and letters exchanged between the beautiful young Countess, her mother, and her one-time boyfriend in Europe, Prince Vladimir Mittrowsky.

The maid was extremely obliging and also brought notes on all her mistress's doings, both in this country and when they took a little jaunt abroad. Broady gathered enough evidence against the royal beauty to show that Ryan was the victim of fraud, and in granting an annulment, the court branded the Countess a scheming, mercenary woman who was interested solely in the handsome young politician's money.

Several months later, Broady got his own come-uppance when Dorothy Pawlowsky, the Countess' maid, sued him for $50,000, charging seduction and fraud. Said the much wiser Dorothy, "John George Broady made love to me from the beginning of the case, promised me marriage and seduced me. Then when the case was won he asked for his letters, cables, telegrams and notes back and said, 'I only made love to you for the wonderful work you could do for me.' "

Broady countered the maid's suit with one of his own against her and her attorneys for $150,000, charging conspiracy to defame his reputation, and extortion. Both cases died in the courts without any money changing hands, and Big Steve went back to "trial preparation."

His meeting with Ryan did a lot for Broady, for after the Ryan job came assignments for Astors, Vanderbilts and Rockefellers. And Ryan, himself, figured prominently in the lawyer-detective's hectic life, from that time on.

In 1938, Broady left the firm he'd been with for 11 years and went out on his own, setting up his main headquarters in an office at 19 Rector Street, where it is still located. He saw the size of the pile that could be made by doing on his own that type of "trial preparation" he'd been doing so well for Stanchfield and Levy. It wasn't until 1949 that he took the trouble to get a license as a private investigator, holding it for only two years, but the work he did, just as before, was more that of a Sherlock than a counselor.

Broady has always had an uncanny knack for meeting the right people who will do him the most good. Besides friendships with men in prominent places, he developed a weird entourage of employees to help him carry on the load and caliber of work he did. Free-lance private eyes, full-time private eyes, part-time workers, full-time workers, hangers-on, wardheelers, flunkys—and wire-tappers all flocked to his colors and were happily received.

In 1934, he had met two brothers, the late John "Al" LaBorde, and Robert LaBorde, whose careers thereafter were threaded thickly through the skein of Broady's life. The brothers LaBorde, plain and simple, were expert wire-tappers. Bold, brash and brazen, making other people's business their living, they had a lot in common with Big Steve. Both of them had worked for the telephone company early in their careers—Bob as head of the test bureau on the East Side of Manhattan—then had gone into the manufacture of hearing aids and telephonic devices, and finally had become private detectives in a firm called the *Investigators Technical Service.*

As Steve Broady's working relationship with them developed, telephone eavesdropping became more and more an integral part of his "trial preparation." It was at this time that the Private Eye evolved into the Big Ear.

Broady's first critical experience with tapping came during the brief time he bore the title Assistant Attorney General of New York State and worked on Brooklyn's notorious Drukman murder in 1935. When Broady, on leave from his law firm, was hired as chief investigator in a special investigation and prosecution of the case, all the suspects in the murder were fugitives from the police. Within a few weeks, they were in custody—for which Broady received ample credit.

Then, long after the murder trial was over and the killers were salted away, Robert LaBorde and a telephone company employe were indicted in Nassau County—(both men were later acquitted) for wire-tapping while seeking witnesses in the Drukman case! Wire-

tapping, whether by private citizens or officials, is a felony in New York State, unless it is done by a law enforcement official acting under a court order. LaBorde claimed he was an official investigator in the case and testified he believed he was acting legally when he paid $40 to a telephone repairman to tap a private wire.

But LaBorde, who managed to escape a conviction that time, was *not* officially connected with the Drukman case in any way. Unofficially, however, he was doing Broady's dirty work and this is how it has been ever since. Steve Broady can invariably be connected as a silent, co-conspirator with much of the wire-tapping that the LaBordes have done. And whenever Broady worked on a case where telephone eavesdropping came in handy, the LaBordes were sure to be found working.

To his clients, to the big-money men introduced to him by Clendenin Ryan, Jr., and the other men and companies who flocked to him with their confidential problems—conniving females, angry wives, blackmailers, shady business competitors—Steve was reliable. He got the job done—how, was his own business—and he got paid handsomely for it. The Astors, Vanderbilts and Rockefellers slept easily, knowing Broady would never betray their confidences.

Broady's work for the millionaires was impressive. He stopped several kidnaping attempts against little Billy Astor, and frustrated dozens of blackmailing plots against his father, John J. Astor, and other wealthy clients before they even knew about it. He represented Jimmy Cromwell against Doris Duke in their notorious divorce suit. He had the phone of Doris' lawyer, Francis Perkins, tapped. And Perkins tapped Broady's. Finally, both lawyers called a truce.

By some, Broady was paid on a yearly retainer basis. By others, on a per-job basis. Gradually his income grew to six figures—bigger than most lawyers, and bigger than any Sherlock.

One time, he brought about the return of $7,000,000 to a Midwest client from whom it had been taken in a smelly business deal. He planted a microphone in an opposition lawyer's office and used the resultant information to best advantage. His fee on that one was $100,000.

He didn't mind stooping pretty low, either. Trailing Antenor Patino, the Bolivian tin mine heir, he caught the married millionaire with a blonde aboard a train. He tells what happened then with relish:

"I put on a conductor's hat and knocked on the compartment door. The door opened a crack, and when they saw the cap, it was opened wider. Bang! One of my men took the pictures!

"The next day, Patino asked me if I had the pictures. I said I had and he offered me ten thousand dollars for them. I told him I had ten men on the job and he said he'd give each of them ten thousand, too. He said he had plenty of money. It wasn't a bribe. Maybe he just collected pictures."

Broady refused the offer, turned the

evidence over to his client, Mrs. Patino, and accepted her money, instead.

It's hard to tell exactly how the Big Ear has sat with the governments—local, state and federal—and with politicians because he and his men have done work for them at times. He was once paid $780 (chicken feed) to investigate supposedly fraudulent voting in Albany. When the late Fiorello LaGuardia was head of the United Nations relief program, he hired Broady to see that there was no graft in the spending of some $15 billion for foods and supplies. These men of integrity and stature obviously trusted and respected him; both considered him their friend.

There's even one unproved and fabulous story that before the United States entered World War II, Broady had his men bug the Nazi Embassy and their Library of Information in Washington, providing valuable information for the government, but this is probably just a legend.

In 1940, Broady and Robert LaBorde were both hauled before a Senate Sub-Committee investigating wire-tapping—and the first public indication of how lawyer Broady was really making his pile was revealed. William Power Maloney, counsel to the committee, produced evidence that LaBorde, under orders from Broady, had planned to tap the phones of the most fantastic assortment of unsuspecting victims and had gone ahead with some of them. These included J. P. Morgan & Company; John W. Davis, prominent attorney who had been Democratic Presidential candidate in 1924; the Guaranty Trust Company; Amtorg, the Soviet trading concern, *and* the Justices of the United States Supreme Court!

As evidence of the tap on the Supreme Court, Maloney came up with a ringer: *Transcripts of taps on the tappers, made by the New York City Police Department during secret and guarded telephone conversations between Broady and LaBorde.* Despite the cryptic nature of the remarks, alluding to "8" and "6" and other numerals and never mentioning names, the Government interpreted the conversations as indicating a tap on the Supreme Court wires in an effort to learn beforehand the verdict in the historic TVA case.

Cried LaBorde, when confronted with these taps: "It's against the law!", and cited the Federal Communications Act and Supreme Court decisions on the matter.

Said Broady: The intercepted conversations between him and his man had been "doctored and phonied up," were "baloney," and besides, he had "not the slightest recollection" of them.

This was to prove the case with Broady any time he was called on the carpet by the authorities. But despite the beginnings of bad publicity and hints of illegal skullduggery, the Big Ear screened himself behind his lawyer's license and the inviolable rights of client-attorney relationships. He let nothing bother him, went right along doing things exactly the way he wanted to, and prospered.

Then, in 1949, Steve Broady had to face his first rap for wire-tapping and briefly saw the inside of a jail for trying to bribe his ex-secretary into disappearing from town so she wouldn't give incriminating testimony on the witness stand. This was the confused affair entitled The Great City Hall Wire-Tapping Mystery.

The Big Ear had two *ex-cops* working for him at this time—both as wire-tappers. One of them was Edward Jones, who had been with the Secret Service, and the other was Kenneth Ryan, a former city detective. Ryan, a telephone company employe before he joined the police department, was an excellent wire-tapper. He had frequently checked the City Hall phones, as well as those in Gracie Mansion, the Mayor's official residence on the East River at 88th Street. Thus he knew the building layouts and the wiring setups perfectly.

On Friday night, March 11, 1949, while the Big Ear and Clendenin Ryan were dining at the home of John Jacob Astor III on Fifth Avenue, there was fireworks going off downtown in the office of Mayor William O'Dwyer. For some weeks, the police had been aware that Ken Ryan was up to something and had been trailing him, and that night they arrested him and seized a wire-tapping arsenal at his home in Yonkers.

It included 40 relays, 24 head sets, three tins of blank records, five telephone instruments and a portable microphone; three sound scribblers, 50 devices used by wire-tappers to identify outgoing numbers dialed on a telephone upon which a tap has been placed, and two fully-equipped tapping apparatus, each about the size of a small portable radio. Most of the equipment was identifiable as telephone company equipment.

When arrested, ex-detective Ryan identified his employer as Broady, and began spilling the story of what the arsenal of equipment was to have been used for. The full story took a bit longer to come out, but it was clear that the motive was politics. Clendenin Ryan had formed a group he called the Clean Government Committee, whose purpose was to dislodge O'Dwyer's administration from power in the November election by proving gangland tie-ups with men the likes of Frank Costello and others of his ilk. Ryan had paid Broady a preliminary $10,000 to "investigate" city officials and the Big Ear, up to form, had put his professional eavesdroppers on it. In addition to tapping the telephones of 75 city officials, plans covered officials in other cities as well as some state and national government figures.

No sooner was this plot of Broady's uncovered, than another one, dating back to the Fall of 1948, came to light, prompting Assistant D. A. Wyllys Newcomb to call the lawyer-detective a downright "fraud." The additional charge against him was that he'd larcenously taken more than $8,000 from the Kings County Buick company. Not only did he have his men eavesdropping on the phones of that company—at the request of a dissatisfied element within the firm—but he was accused of phoneying up the recordings and transcripts they were

paying him for in order to prove he was worth the dough and perpetuate his employment with them.

Broady's aides were indicted on the City Hall plot, and he and Ryan on the automobile agency plot, but the jury turned them loose. The only time the Big Ear served in jail was when the judge angrily revoked his bail during the trial for tampering with the aforementioned witness. The public attitude toward wiretapping at that time was lackadaisical, and more indulgent than indignant, and even the laws governing telephone eavesdropping were vague enough to frustrate the efforts of Frank Hogan to end the Big Ear's activities. The length to which a man like Broady could and would go as a wire-tapper, and the extent to which it could affect celebrities, businesses and ordinary citizens was yet to be revealed.

Concerning Broady the man, it is sometimes hard to tell where the baloney ends and the facts begin, as he uses both to his advantage. Though he is close-mouthed and will rarely talk about his work, unless it is to his advantage, he also has been known to get carried away with himself. He knows he's playing an off-beat, dramatic, colorful role and will give the script the Hollywood twist when the situation demands.

This is the way the downfall started: In the fall of 1953, the No. 1 Ear was doing some snooping for banker Herman Harjes against his wife, Tauni de Lesseps. Needing a tap, he called upon telephone tester Carl Ruh, whom he had met through Al LaBorde the previous Spring. Ruh was also a licensed private investigator. Because of the technique of tapping required in this case, it was necessary to bring in another type of telephone worker—a "frame" man.

The man selected was Walter Asmann, who agreed to cooperate for a price. The duties of a frame man are to connect and disconnect wires providing telephone service to subscribers on the frame of the exchange—in this case the East 56th Street Exchange, which took in a territory bounded on the west by Fifth Avenue, on the north by 57th Street, on the south by 45th Street, and on the east by the East River. Within this area lived some well-known personalities, and some of the wealthiest people in New York.

The frame man takes his orders directly from a tester, who is the coordinator between the various crafts of the telephone company. One of the main duties of the tester are to determine at what point trouble exists with a subscriber's phone service, either within or outside the exchange. He has access to telephone company records, to wires within the exchange itself, to cables containing wires hidden beneath the streets, and to wires running from the cables into the various residential and office buildings within the exchange area.

Ruh and Asmann, then, were a formidable combination for anybody bent on illegal wire-tapping. The Big Ear was so bent—and he paid them for their cooperation. Originally, he hired them only for the Harjes-de Lesseps divorce matter, but when other clients came along whose "investigative" work concerned people living in this area and could be done

through the new eavesdropping set-up, Steve Broady realized he had a good thing on his hands. He even did some private tapping of his own and then went out to see if he could match his information to a client who would pay him to continue.

From September, 1953, to February, 1955, the conspiracy grew. Starting in a borrowed apartment, where the tapping and recording machinery were installed, it moved to an apartment leased expressly for that purpose at 360 East 55th Street, and then into two apartments rented by Broady under the pseudonym of "Robert Kinnard" at 303 East 53d Street.

To monitor the equipment, Broady hired an old friend of Carl Ruh's, Warren Shannon, who billed himself as a film technician and a free-lance electrician. Shannon also had a good knowledge of telephonic communications.

The wires of the victims were not tapped by directly attaching or splicing wires to their respective telephones, but by a method known as "back-tapping"—which was where Ruh and Asmann came in.

Every telephone instrument is connected with a local exchange. The wires of each telephone, known as pairs, run to a terminal strip, which is a box, usually within a building, where all telephone wires from that building come together. These pairs then run to a bridging point in the neighborhood, where all the pairs from the neighborhood come together. Then these pairs are grouped into cables headed for the exchange. There is also within the cable "spare pairs" reserved for future use, which is important to a potential tapper.

All the pairs in the cables then enter the exchange, as do other wires in other cables from other bridging points. In the exchange, these pairs, which emerge from their cables, are connected upon and become part of the frame of the telephone exchange. The frame, located in a room of the exchange, is a network composed of thousands of pairs of wires, each of which leads to a telephone instrument located in the area serviced by the exchange. It is through the exchange that a telephone subscriber is enabled to call another subscriber either within or without the area serviced by the exchange. In the event the call is to be made outside the exchange area, a telephone connection is created between the required exchanges.

The taps set up by Broady's men were made at the telephone exchange, itself. Ruh would receive his instructions from the Big Ear to tap a certain telephone. He would go to the company records and obtain the pair and cable number and pass the information to Asmann. Asmann would locate and connect the wires of the subscriber on the frame with "spare pairs" running through a street cable into the listening posts established for Shannon to monitor the calls and make tape recordings.

There were some rather interesting jobs performed by Broady during this period.

He kept track of the social life of singer Kyle McDonnell then being sued for divorce by her husband. And did the same to strip-tease dancer Ann Corio, who was being courted by a gentleman who happened to be married to somebody else.

To a wealthy young playboy named T. Thornton Oxnard, who had fled the country to Cuba, he conveyed the happy news that a young lady friend of his was not really pregnant after all. For this piece of information, Broady received $11,000.

Once he even happened on the telephone line of Clare Booth Luce at 60 Sutton Place, but was smart enough to get off it quick.

His most lucrative job during this period, however, was for the Charles Pfizer pharmaceutical company, which was conducting a lawsuit against Bristol Myers and Squibb for allegedly infringing Pfizer's patent on a wonder drug called "tetracycline." Broady claimed later he was hired to find out if the Pfizer offices in Brooklyn were tapped and if secret information on "tetracyline" was being divulged by Pfizer employes to its competitors. He failed to explain, however, what he was doing listening in on the Bristol Myers and Squibb telephone lines. The only point of agreement was that the Big Ear had received a whopping $60,610.07 for his work for Pfizer.

The actual preparation of the indictment against Broady and its prosecution was placed in the hands of two brilliant, hard-working Assistant D.A.s, Aloysius Melia and Harold Birns.

They realized that to convince a jury, circumstantial evidence was not enough. They would need corroboration. First of all, they got Ruh to cooperate and give instances of his actually tapping wires, including some of those discovered in place by the police. But this was to be a thorough, painstaking investigation to present *overwhelming* proof to a jury, so they were still not satisfied. To gain further corroboration, they had to get to the clients who had hired Broady—*not* necessarily to wire-tap, *but* to investigate the matters which Broady was probing at the time he used wire-taps.

Besides the raids on Broady's home and offices in their search for evidence, the D.A.'s office subpoenaed from the telephone company the records of thousands of toll calls from Broady's office number. Every one of these calls—in the United States, to Europe, South America and Asia—were screened. Some of them turned out to be to people who acknowledged to the D.A.'s office that they had employed lawyer Broady on matters which Melia and Birns were then able to associate with wire-taps.

The Assistants, and three special investigators assigned to the D.A.'s office, criss-crossed the country talking to people and spent nine months of intensive work in preparing their case. One hundred witnesses were questioned in Hogan's office, and 41 were eventually put on the stand.

Testifying in his own defense, Broady fought to the end. He used his old trick of seizing upon things completely irrelevant, twisting them and trying to make them work for him. At one point he even broke into sobs and tears at the horror of the murder of a man he said

was an employee of his in order to arouse the sympathy of the jury.

A few years before, the No. 1 Sherlock had been working on a legitimate case down in Mexico, trying to recover more than $6,000,000 in Chinese Air Force funds from General Pang T. Mow, who had disagreed with Chiang-Kai-Shek and fled from his post in Washington, D.C., with the money.

Broady expounded at great length upon this story while on the stand, attempting to give the impression that all the illegal subterfuge and wire-tapping for which he'd been indicted was only done in the highest of causes.

When asked why he had rented two apartments at 303 East 53rd Street under the pseudonym of "Robert Kinnard," which were used as the centralized listening posts of his wire-tapping operations, Broady insisted that he'd planned to lure there members of the one-time Capone mob who were trying to fence some of the missing money.

Then, lowering his face to his massive paws, he proceeded to break down about the fate of a Brooklyn geologist, whom he claimed was his agent working on the case in Mexico. This may or may not have been true—Mexican police claimed the man had been brutally slain by bandits—but it certainly had no connection with the case for which Broady was being tried.

"They were a very vicious mob!" he cried. "One of my men was killed on the case, he was murdered! I didn't want to have them knock me off like they did my man! I have got a wife and kids, too!"

The trial was ordered halted for five minutes, to clear the air of the courtroom.

When the testimony was all in, an all male, blue ribbon jury found the Big Ear guilty on 16 of the 17 counts in the indictment. On January 13, 1956, Judge Jonah J. Goldstein sentenced Broady to two to four years in the penitentiary, referring to him as a "perjurer." Assistant D. A. Melia was even more explicit when he said that Broady "prostituted a noble profession by seeking to cloak his wire-tapping activities under the mantle of his attorney's license, although he was more an attorney in name than in fact . . . In this desperate and arrogant effort to hoodwink the jury, for two days he poured forth a continuous stream of perjury."

A month later, at the petition of the Association of the Bar of the City of New York, the Appellate Division erased Broady's name from the rolls of attorneys.

And the Big Ear? What is his reaction to all this? He's still as bold and brazen as ever. Released from jail temporarily on March 2, pending an appeal, he had this to say about the short time he'd been behind bars: "I had a very nice time."

He and his lawyers are hard at work now on his appeal. What the result will be is anybody's guess. Broady is no less clever now than he used to be. In fact, one man closely involved with the case, has said, "He is close to a genius. Then he added, "but also a bit nuts. He's got to be to get where he has." •

TO THE POLE IN A GAS BAG

Continued from page 11

meant more than his pride. "At any rate," he said, "if an important decision comes up, you'll ask my advice?"

Amundsen, stony-faced, nodded.

In spite of the brief clash, the meeting between these quaintly-matched partners closed on a note of friendliness and enthusiasm. Amundsen was delighted to have not only the N-1 (later christened the *Norge*) but also its famous designer and builder as commander. And Nobile was delighted to have as leader of the entire expedition a man generally considered to be the greatest of all living explorers.

Plans for the expedition apparently went smoothly. But, behind the scenes, trouble began to brew. It came to a head in January, 1926, when the Norwegian Aero Club sent a wire to Ellsworth in New York City asking that Nobile be given permission to write about the aeronautical aspects of the trip. The easy-going Ellsworth, characteristically, wired his immediate consent. A few days later the Norwegian Minister to the United States advised him to refuse the request. A second wire was sent by Ellsworth. But the Aero Club answered,

SORRY BUT CONTRACT NOBILE SIGNED AFTER RECEIVING YOUR CABLE 16TH

Amundsen, quite understandably, was angered when he learned of the Aero Club's action. Althought Nobile had designed and built the airship, he would be merely its "hired" captain, and the Norwegian resented sharing any of the glory with a member of a southern nation.

Nobile, in turn, got "so fed up with the whole mess" that it took all the persuasion of Dr. Rolf Thommessen, head of the Aero Club, to keep him from dropping out of the expedition. At any rate, a shaky truce was arranged.

Several newsmen predicted that the trouble between the two men would break out into an open fight as soon as the *Norge* took off from King's Bay. But now that the great voyage was at last under way, the months of bickering and petty jealousies seemed over. The crowded cabin was a scene of peace and competence. Even the walls of the gondola reflected the general equanimity: side by side hung pictures of the King and Queen of Norway, Mussolini, a snapshot of Nobile's young daughter Maria, and an image of the Madonna.

At 10:30 p.m. the little *Norge* was enveloped in dense fog. Ice began to form on all the metal parts of the ship. The celluloid windows of the control car were enshrouded in rime ice like thick wool. Nobile ordered Wisting to bring the ship up to 2130 feet. There was no improvement. Nobile called for more altitude. At 3160 feet the ship stuck its nose out of the fog bank. The temperature had now sunk to 12 degrees below zero.

Soon it began clouding again. By 11:25 the fog was a thick wall ahead.

As the ship neared the Pole, the excitement mounted. At 1 a.m. the sky began to clear. Fifteen minutes later Riiser-Larsen, bulky as a bear in his suit, knelt on the floor near a starboard window. He was squinting at his sextant, which had been set at the height and declination the sun should have at the Pole at that date. The reflection of the sun and the bubble of the artificial horizon drew closer and closer.

"Ready with the flags!" he called.

Amundsen opened a window and stuck out the Norwegian flag. Its staff was weighted and pointed at the end so that it would stick in the ice. Ellsworth was ready with the American flag sent him by President Coolidge. Nobile called up to Head Rigger Renato Alessandrini on the keel to get the Italian flag.

"Hurry up, Alessandrini!" he shouted. When the rigger finally arrived with the flag, it was hastily fastened to a spear.

Riiser-Larsen grew tense. "Now, we are there!" he cried suddenly.

It was exactly 1:30 on the morning of May 12, 1926. Amundsen flung out his flag. The men watched it spin down to the sunbathed Polar basin. Now, through the hazy atmosphere, they could see that the ice below was broken up in a mass of small floes. The end of the flagpole stuck in the ice. Amundsen, his throat choked with emotion, turned. He clasped Wisting's calloused hand. Neither spoke. Both were thinking that not quite 15 years before they had planted a similar flag at the South Pole.

Nobile ordered the motors slowed down. Horgen steered the ship in a circle. Next, the American flag went over the side. A moment later, Nobile excitedly pushed the Italian flag overboard. It glided, caught in the drift gauges and finally fell.

The men all shook hands. It was a moment of unqualified triumph for everyone.

Now began the hardest and most important part of the expedition—the navigation of the unexplored territory that lay between the Pole and Point Barrow, Alaska. Peary had thought he had seen mountains beyond the Pole. It was Amundsen's dream to find out if there actually was land in that bleak area.

For hours they floated over the monotonous glittering ice, rifted by wind and tide into cracks and occasional leads of open water. Once more ice began to form on the ship. The sun-compass, which was mounted on an outrigger, was frozen to a solid block of ice. The guy wires were covered with an inch of ice. As these wires quivered, ice broke off, and some of it began falling into the propellers. Like small projectiles, the ice pellets would then be driven through the canvas into the keel, often making holes in the ballonets.

Each time an ice "bullet" pierced the canvas it sounded like a gunshot. Then Chief Mechanic Natale Cecione would propel his bulk into action, quickly mending the holes with rubber patches.

For hours the fog had prevented speed or drift measurements from being taken. Soon after the *Norge* had passed the Pole, the ship's aerial was encased in thick ice and the radio had gone dead. Riiser-Larsen was reckoning on pure judgment.

Now icicles hung from all the projections of the gondolas and along the radiators and gangways. Even the propellers were ice-coated. Everyone remembered the prophecies of experts that the *Norge* would eventually be forced down by the weight of ice and snow.

The tension grew as ice continued to fly into the keel, narrowly missing the gas bag itself. Occasionally a patch of the ice pack appeared underneath but never long enough for Riiser-Larsen to take an observation. No sign of life was seen —no birds, not a seal or walrus or polar bear.

Early in the morning of May 13, the fog began breaking up.

Then at 6:30 the navigator noticed some dark spots off the port bow. "Land ahead on the port bow!" he cried.

The men—in the air for almost two days—forgot their exhaustion and the numbing cold. The good word ran from gondola to gondola. Soon little gravel pits appeared ahead. At 7:25 a.m., 46 hours and 20 minutes after leaving King's Bay, the *Norge* crossed land a few miles from Point Barrow. Beyond the gravel pits lay snow-covered flatland, stretching out as far as they could see.

The helmsman followed the Alaskan coast for an hour. Suddenly Amundsen cried out, "Look!"

Below an Eskimo was dancing on the ice, waving his arms. His dogs were howling in terror.

A few minutes later a group of shacks appeared, then a reindeer training field and a small house with a red roof.

"It's Wainwright!" shouted Amundsen, leaning forward. He pointed at a house that grew larger. It was Maudheim, built by Amundsen and his own home for two years. People stood on the roof and waved at the explorers.

Instead of landing, the *Norge* continued its voyage. In spite of fatigue, every crew member wanted to push on to Nome, the announced goal. Several hours later they began to regret their enthusiasm. A violent gale came up from the north and blew the ship sideways in and out of massive clouds of fog. The ship, its flexible keel bending in the wind, was driven almost to the Siberian coast. Then, falteringly, the *Norge* fought its way back across the rough, foaming waters of the Bering Strait.

Fog closed in.

At last, an hour later, a slight opening appeared below. The ship sank slowly, tentatively. The rugged, mountainous coast of Alaska abruptly jutted up at them. Nobile ordered Horgen to follow a narrow mountain ravine southward. Jagged hills, reaching above the fog, were on both sides of them. A gale-force wind began to blow across the ravine, rolling the little ship sickeningly. The windows fogged up. Titina, Nobile's terrier, began to move restlessly in the cabin. Nobile, taking the elevator wheel from Wisting, told Riiser-Larsen to lean out the window and shout if they came to a rise. The ship moved slowly through the blinding white billows. Everyone in the control cabin peered ahead, straining his eyes to see the danger before it was too late.

Riiser-Larsen suddenly shouted back a warning. Nobile jerked the wheel to the right and the nose of the *Norge* shot into the air. The black wall that had leaped in front of them dropped away.

"Did it knock off the rear gondola?" asked Nobile, his face pale.

A moment later the message came forward that Pomella was safe. His gondola had dropped so low he felt he could have touched the hill top.

Now, high in the fog again, they were lost again. Nobile lowered the ship carefully until the ravine could be seen, then resumed the perilous job of threading a trail through the hills. Riiser-Larsen again leaned out the window. A second time his alert warning saved the ship. By 4 p.m. they all agreed it was suicide to continue at that altitude.

Nobile decided to climb above the fog so Riiser-Larsen could take a reading of the sun. The engines were slowed down and the ship rose quietly. At last, above the 3000-foot mark, the ship came into sunlight. But the sun was so high no observation could be taken from the control cabin: from every angle the gondola was in the shade. A reading would have to be taken from the top of the ship. The navigator climbed up the steep bow ladder onto the top of the pitching dirigible.

At last Riiser-Larsen finished the reading and started down the ladder. But the gas bag, exposed to the sun's rays for such a long time, began to swell dangerously. The hydrogen had expanded so rapidly that Nobile couldn't control it by opening the gas valves. Titina, silent until this moment, went backwards and forwards in the gondola, howling and whining.

Since the ship was cruising at low speed, it was impossible to drive her down. Nobile, watching the hydrogen gauges shoot up, knew he had to act quickly.

"Run fast to the bow!" he shouted in English to the Norwegians in the control car. They looked at him quizzically. "Run to the bow!" he cried, gesturing. Three Norwegians finally understood and scrambled up to the keel. They ran to the bow, tipping the nose down.

By this time all three motors were at full speed and the ship nosed even further down. Nobile watched the hydrogen gauge waver at the danger point and then drop. In a minute pressure was back to normal. For the time being, the danger was over.

Hours passed. There was no coffee or tea. The sandwiches were frozen to the consistency of wood. The meat balls were frozen into ice crystals. Amundsen, no stranger to tedium, told humorous stories to relieve the monotonous hours and to give the feeling that if the worse happened and they were forced to the ice, he would take over and lead them to safety.

At 1:30 in the morning, Nome radio signals could be heard distinctly. Gottwaldt tried to reach the station but got no response.

A few minutes later a winding river could be seen through the fog.

"It's the Serpentine!" cried Amundsen.

Now there was no need for further navigation. It was only necessary to fly low and follow the coast. Riiser-Larsen took over the watch from Nobile, who hadn't been relieved for 16 hours. The exhausted commander slumped into their only armchair to get a few minutes' sleep before tackling the tricky landing maneuvers.

At 4:30 a.m. a tiny dot was spotted. Amundsen thought it was Sledge Island. Nobile was awakened.

"We're near," Riiser-Larsen told him. "In half an hour we should be over Nome!"

Nobile leaned out a window to refresh himself. The sea was sombre, rough, foamy. The skies were an ashy grey, striped with black clouds. Every few minutes a snow squall would cloud the windows. The ship was constantly buffeted by furious gusts of wind.

"Prepare landing ropes!" called Nobile to Alessandrini on the keel above.

Riiser-Larsen began writing out directions for the landing party, and the men off duty went to work folding up the sleeping-bags on the keel. Wisting, his eyes red from fatigue, was at the rudder wheel. Amundsen, his old comrade, stood next to him. Together they tried to pick out familiar landmarks. A cluster of shacks appeared on the snow. Then they spied an abandoned three-masted steamer lying on her side in the middle of the ice.

Now the wind began blowing so hard that the *Norge* was brought to a standstill. Nobile ordered all three motors speeded to 1200 revolutions. Still the ship made little progress against the gale. It was obvious that an even greater storm was building up. The sky had become black and the *Norge*, tilted at an angle of 30 degrees, was pitching heavily.

Amundsen and Wisting shook their heads. They didn't recognize the little community, and no one knew where Nome lay from the village. The three leaders had a quick discussion. Everyone agreed that the men had reached the end of their endurance, that it would be insane to fly on with a great storm threatening to strike, that an immediate landing should be attempted even though the ship was bouncing crazily in the wind.

A mooring line was dropped. Eskimos and traders rushed from the village to grab it. One Eskimo boy thought the ship was a flying seal. He called to his father, told him to take his gun and shoot the animal.

Abruptly the guests of wind stopped. During this momentary lull, the *Norge* approached the ice with cautious haste. The big air fender under the main gondola touched ground, and the ship bounced a yard in the air. Then, at exactly 7:30 on the morning of May 14, the *Norge* settled serenely. It was a perfect landing.

The men staggered out onto the ice. Their legs were wobbly, their eyes glazed. Amundsen went up to Nobile, who was ordering the crew to deflate the gas bag quickly before the strong wind started up again. The great Norwegian explorer thanked Nobile warmly for bringing them safely through the long storm.

Ellsworth wrung the Italian's hand gratefully. "My house in New York is yours!" he said impulsively. "My villa at Florence is yours!"

At that moment no one thought of personal glory or national pride; to a man they were simply relieved—relieved that the intolerable tension was at last over. The Norwegians went into the village, led by the impassive natives.

Now the *Norge* was shrinking fast. The control car was dragged under the retreating folds. Then the engine gondolas disappeared under the empty rubber envelope.

Now only Alessandrini and Nobile stood watching their beloved airship. The two men looked at each other. At this moment of great triumph, they both had a strange feeling of sadness.

Word was flashed to a world that believed them lost that all 16 on the *Norge* had reached Teller, Alaska—a tiny Eskimo village of 55.

There was international rejoicing. The flight across the top of the world was immediately recognized as one of the most daring and important adventures in history. Many thousands of square miles of ice land had been explored for the first time. And it was finally learned that no great land mass lay between the Pole and Alaska. Peary had merely seen a "Cape Fly-away."

Soon after landing at Teller, Amundsen and Ellsworth left in a dog sled for the 55-mile trip to Nome. Nobile and most of the crew remained to dismantle the *Norge*.

Already the dormant bitterness between Nobile and Amundsen—forgotten during the long, dangerous flight—had sprung up again.

The quarrel broke out in earnest when dispatches from Nobile began to come out of Teller. Mussolini didn't ease the situation. Il Duce's Fascist press made the trip appear to be almost entirely an Italian triumph.

Amundsen angrily asked the Norwegian Aero Club to restrain Nobile from writing anything more about the flight. Dr. Thommessen refused.

Dozens of petty differences cropped up in the next few days. These were climaxed when Nobile started a lecture tour of the United States, accompanied by Titina. Amundsen was furious because he felt the Italian was taking the edge off his own projected tour. Ellsworth, who never said ill of anyone, tried in vain to act as peacemaker. He was a tortured man for, although he admired Nobile, he had a deeper affection for the sensitive Norwegian explorer.

Newspapers and magazines reported each squabble blowing them far out of proportion. Amundsen's bitterness finally came to a head. He wrote two long, violent articles in *World's Work*, accusing Nobile of everything from incompetency to cowardice. Amundsen declared Nobile had only been a paid chauffeur—and a poor one at that.

Nobile was too angry to make a judicious answer to these highly colored charges. He replied, in a succeeding issue of *World's Work*, that Amundsen had just come along for the ride; that he had merely sat in an armchair and enjoyed the scenery. It was, said Nobile, "A pleasure trip, more or less, for Amundsen."

When Nobile announced that he was going on a second Polar trip, Amundsen and many other Norwegians, who felt the North was the exclusive purlieu of the Nordics, sarcastically predicted the affair would be a great fiasco ending in disaster.

The idea for the expedition had come to Nobile while in Teller. As soon as a safe landing was made, every crew member had enthusiastically offered to go on another trip with Amundsen. But the Norwegian, worn out by his many rigorous expeditions, shook his head. "Another generation," he said with a heavy sigh, "can now take a hand."

But Nobile was still obsessed by the North. He asked Riiser-Larsen if he would come on a Polar flight in a new airship, already being built in Italy, which was much larger than the *Norge* and could fly from Spitsbergen to Tokyo. They would call it the Nobile-Riiser-Larsen Expedition. But the fued between the two leaders had already come into the open; and Riiser-Larsen, faithful to his hero coolly declined to join forces with the Italian.

A little later in Nome, Nobile asked Oskar Wisting if he'd join the proposed expedition. The old Norwegian consented readily. Finn Malmgren was also eager for a second polar flight. But Mussolini had other ideas. He ordered Nobile, instead, to start building an airship three times as big as the *Norge* for a non-stop flight to Buenos Aires.

A few months later high Fascist officials in the Air Ministry, jealous of the adulation Nobile was receiving from the people, persuaded Il Duce to abandon the ambitious South American project. Then work was ordered stopped on the big airship Nobile had planned to take to the Pole. The general's enemies were now confident he had been forced into oblivion.

But Nobile was not to be discouraged this easily. Rather than give up the second Polar trip, he began work on a small dirigible similar to the *Norge*. Plans were considerably progressed when Dr. Thommessen, president of the Norwegian Aero Club, came to Italy in August, 1926. In spite of the tempestuous battle still going on between Amundsen and Nobile, the Norwegian official maintained that Nobile was being maligned. He agreed to let the Italian use the Aero Club's roofless hangar at King's Bay.

Nobile laid out an ambitious scientific and geographic research program for the new expedition. He wanted to explore the mysterious Nicholas II Land and the coasts of Greenland and Canada, and make an actual descent at the North Pole for oceanographic observations. Now all he needed was approval of the project from Mussolini.

In May of 1927, aviation was given fresh impetus by a dramatic solo flight from New York to Paris. As young Charles Lindbergh was winging over the Atlantic a huge, rowdy fight crowd at Yankee Stadium stood for a moment in silent prayer. The world was soon enchanted by the young man's simple charm. Once again everyone became air-conscious. Preparations for a dozen exciting plane and dirigible flights were set in motion. It was obvious that the spring of 1928 would be the most productive and thrilling in the history of aviation.

Several months after Lindbergh's flight, Mussolini, eager for more Italian air exploits, finally gave his consent to the new Polar trip. The dictator promised to provide a ship and crew if the Italian Royal Geographic Society would sponsor the event and the city of Milan pay the expenses. Since Nobile was one of Italy's greatest popular heroes, these arrangements were soon made.

With its modifications, the new ship proved to be superior to the *Norge*. The control car was larger and more comfortable. The envelope was made of lighter material and reinforced with heavy rubberized fabric at the bottom as protection from splinters of ice. The keel was reinforced with two extra layers of cloth to protect the ballonetes and gasbag from the ice "bullets." The radio antenna was redesigned to be pulled into the car more easily when it became covered with ice. With all these improvements, the ship was 2,866 pounds lighter than the *Norge*, giving it a greater cruising range.

Nobile worked out an ingenious device for descent on the Arctic Ocean. A chain of bronze balls, threaded on a steel cable, could be dropped onto ice or water, acting as a brake. Then two men were to be lowered in a pneumatic basket.

The ship's instruments were also improved. Now four compasses, more suitable for Polar use, were installed. Since the altimeter had been very erratic on the previous trip, with barometric pressure readings usually unavailable, Nobile devised a simple but effective altimeter. Glass balls were made and filled with a red liquid. When they hit the snow the balls would break, making a red mark. The time of fall indicated the altitude. Three seconds, for example, meant the ship was 187 feet above the ground.

Nobile took many months to pick his crew. To avoid offending Amundsen, Wisting had backed out. But Malmgren volunteered eagerly, and with him five other veterans of the *Norge*: Engineers Cecioni and Arduino, mechanics Caratti and Pomella, and Rigger Alessandrini.

Calisto Ciocca, a veteran workman who had helped prepare the *Norge* at King's Bay, was chosen as the third mechanic. Felice Trojani, the general's work assistant for 12 years, was signed on to help Cecioni at the elevators.

From a large group of volunteers, two young radio operators were picked. Ettore Pedretti, blond, blue-eyed and slender; and Giuseppe Biagi, short, rugged and dark. Biagi was to become the most famous radio operator of the day.

Three naval officers, highly recommended by the Air Ministry, were assigned to Nobile as navigators and aerologists. Nobile instantly took a liking to Lt. Commander Alfredo Viglieri, a tall man of dignified composure. The other two, Commanders Adalberto Mariano and Filippo Zappi, had excellent records as airshipmen; and since they were far superior to other applicants, Nobile chose them.

In addition to Malmgren, two other well-known scientists were selected: Dr. Aldo Pontremoli, of the University of Milan and Dr. Francis Behounek of the Wireless Institute of Prague, who had been at King's Bay when the *Norge* took-off. Behounek was a big, stout young man with the fresh, rosy face of a schoolboy.

Two newspapermen rounded out the ship's complement: Francesco Tomaselli of Venice and Ugo Lago of Syracuse.

The expedition was planned in meticulous detail, with great foresight and patience. Nobile conferred with Nansen and Otto Sverdrup for survival items. The keel of the new ship would be loaded with two sledges, snowshoes, skis, a Vickers rifle, two Norwegian seal-hunters' rifles, three Colt revolvers, and even mosquito netting in case they were forced down in the Mackenzie section.

For food a special pemmican mixture that appealed to the Italian palate was prepared under Norwegian supervision. It consisted of pulverized meat and fat, peas, oatmeal, potatoes, onions and celery. Chocolate, malted milk and biscuits were also on the menu.

The same care went into the clothing. As an undergarment the men were to wear a three-piece outfit of tunic, trousers and hood. The outside garment was a buttonless lamb's wool suit that weighed less than eight pounds. Its fur was turned inside and the skin covered with a thick wind-and-rainproof material. In addition to reindeer skin shoes and *finsko* (Russian felt boots), every man was provided with reindeer leather shoes, heavy hiking boots and several pairs of catskin socks.

On March 19, 1928, the *City of Milan,* under Captain Romagna, left Spezia for King's Bay with extra engines and supplies. On the same day the airship, now named the *Italia,* was transferred from Rome to its sponsor city, Milan. A week later the sturdy Norwegian whaler, *Hobby,* left Tromso for Spitzbergen, bringing canvas for the hangar and 300 tons of material for refueling and repairing the *Italia* should the *City of Milan* arrive too late. On board were Amadeo Nobile, the leader's young brother, who was to be in charge of the weather station, other Italian experts and 10 Norwegians. Special ground crews soon arrived at the way stations on the *Italia's* northern trip—Stolp, Germany and Vadso, Norway.

The whole operation was working smoothly, in spite of veiled ridicule from newsmen who disliked anything connected with Fascism on general principles. On March 31, the crew of the *Italia* was received by Pope Pius XI, an ardent mountaineer, who understood the danger of ice and snow. He had followed with keen interest all details of the expedition's preparations.

The Pope himself had prepared a six-foot oak cross, and he presented it to Nobile to be dropped on the North Pole. "Like all crosses," he said with a smile, "this one will be heavy to carry."

A few days later Nobile had a farewell audience with the King, who had twice visited the Arctic with the Queen on hunting trips. On April 11, the general was received by Il Duce. Nobile explained the ambitious plans and told of the careful preparations.

"Good!" said Mussolini, jutting out his famous lower lip. "You have forcseen every thing. That's the best way to succeed. To provide for everything—one hundred per cent. That's my system too!"

The two men parted with the warmest words of good-will.

With 20 aboard, the *Italia* left Milan at 1:55 a.m. on April 15. It wasn't until noon of May 5 that the airship, after many delays because of bad weather, finally hovered over its goal, King's Bay.

At 12:45 p.m. Nobile gave orders to drop the mooring cable. A group of Alpine skiers, brought along as a rescue party, grabbed it. Sailors from the *City of Milan* joined them and the ship was steadied. In apprehension of the strong wind, the *Italia* was moored to the mast. The crew, except for Nobile and three others, was lowered to the ground.

Soon the wind began to rise. Nobile ordered 50 men put on the ropes to keep the ship from whipping around. But Captain Romagna refused to let Nobile use his sailors. The general was nonplussed and quickly sent an emergency call for volunteers to the nearby mining town of Ny Aalesund. For an hour Nobile and the alpinists fought against the gale, with everyone certain the ship would be torn from the mast and destroyed.

At last reinforcements, organized by the mining directors, arrived. During a brief lull in the storm the ship was brought off the mast and led into the hangar. It was then that Nobile realized he had been too busy designing, building and flying airships to play politics or to look to his own best interests. For the first time he realized he had powerful enemies.

In four days the *Italia* was completely overhauled. The Tromso weather station wired that conditions were favorable for a flight to Nicholas II Land; and at 7:55 a.m. on May 11, the ship took off. Because of the rise in temperature, gas had to be valved and only 11 crewmen and two scientists, Malmgren and Pontremoli, were taken along. Shortly after the ship had started on its northward course, Alessandrini spotted a wire rudder cable which was badly frayed. It was repaired at once, but Nobile was very upset. He had specifically ordered the ground crew to inspect every control wire. Such carelessness was unforgiveable in the Arctic—if indeed it was carelessness.

Pressure began to fall. Within a few hours the ship was in the middle of a gale. Ice began forming all over the dirigible, and snow piled up on its back. Then a strong northwest wind sprang up. Malmgren and Nobile decided that since the scientists were accomplishing little in the dense fog it was futile to continue. At 4:10 p.m. the ship arrived safely at the base.

The foreign journalists assigned to cover the expedition reported happily that the entire flight had been a dud. Little mention was made of the faultless airmanship by which commander and crew had brought the *Italia* through the storm.

For the next few days it snowed steadily. Since there was no roof on the hangar, and the weight of the snow could break the back of the ship, this period was a nightmare to Nobile. Each hour a ton of snow collected on top of the *Italia.* And sweeping off the fragile envelope was a difficult, painstaking job. The control car and rear gondola began to drag on the floor of the hangar. The stern was so heavily weighted that metal plating underneath started to buckle.

Nobile slept little, spent every waking minute at the hangar supervising the sweeping. Finally the temperature rose and the snow melted. Water dripped down the sides and spouted from all parts of the ship. Nobile now feared a freeze would set in and seriously damage the envelope. Fortunately the snow stopped, the sun shone and the ship dried out.

Nobile now made plans for another trip to Nicholas II Land. This time several tons of scientific equipment, including the device for landing on the ice pack, were aboard. In all the little ship lifted a load of 26,000 pounds.

The *Italia* took off early on the afternoon of May 15 with 13 crewmen, two scientists and one journalist. Tomaselli and Vago flipped a coin to see which of the newsmen would go. Vago won, but Nobile decided the older man had priority.

In four hours the ship passed over Cape North. The sea was frozen over. Snow began to fall, but the scientists could see clearly for six miles. Clouds had covered the pearl-grey sky by the time they passed over Franz Josef Archipelago. Below, patches of freshly frozen ice showed white, and were bordered with thicker, bluish ice.

The ship pushed on and on to the north for a day and a half. Still no land was in sight. Gillis Land did not exist—at least in its position on the maps. After flying over 31,000 square miles of unknown territory Nobile turned the ship around. The *Italia* landed at its Spitsbergen base on the morning of May 18, after a

rigorous and successful flight of 69 hours. Though the newsmen at King's Bay seemed to think little had been accomplished, Malmgren had collected important data on meteorological conditions and the state of the ice, and Pontremoli had made readings and surveys, which until then had been unavailable to scientists.

Nobile began preparing the ship for a flight to the Pole that same afternoon. By May 22 the *Italia* was ready and the apparatus for landing on the ice had been personally tested by Nobile. That night, on the strength of favorable weather reports, Malmgren recommended an early start.

At 2:30 in the morning Nobile ordered the ship filled with hydrogen. He walked under the ship, carefully inspecting the envelope for undiscovered damages inflicted by the snowstorm. Near the stern he heard a litle hissing noise. In a moment he found a small slit in the envelope. It looked more like a gash than a tear. The damage was repaired and a thorough examination of the ship made for other flaws.

At 4 a.m. the *Italia* was dragged from the hangar and weighed. Its extra buoyancy permitted Behounek to come aboard with the other two scientists.

In sharp contrast to the departure of the *Norge*, this leave-taking was charged with emotion and camaraderie. After a champagne toast (which was enlarged to a drunken brawl by several correspondents) the crew members embraced their fellows who were to stay behind. Every man went to his landing station.

Then Father Gianfranceschi, chaplain of the expedition, recited a short prayer.

"Let go!" shouted Nobile from the control cabin.

At 4:28 a.m., May 23, the ship rose from the snow. The crowd of 250 below cheered. The *Italia* circled the field and then headed north.

There were 16 on board, including Viglieri and the young newsman, Lago. Fourteen of the crew were Italian, one Swedish and one Czechoslovakian. Of the Italians seven were blond and blue-eyed; and Malmgren remarked jokingly that they were simply obeying an instinctive call back to the cold lands of their Nordic origin.

The ice pack, shrouded in fog, was crossed at 6:50 a.m. In the middle of the afternoon the fog thinned and they saw the coast of Greenland. At 6 p.m., they were a few miles from Cape Bridgeman. The sky was clear and amazingly blue and a radiant sun glistened on the snow. There was an air of expectancy on board.

The three naval officers took turns at the rudder while Trojani and Cecioni spelled each other at the elevators. Malmgren, wearing glasses, stood marking the weather chart and Biagi brought in periodic radio reports.

Pontremoli and Behounek, intently working their complicated instruments, looked like scientists in a laboratory. In the stern engine was Pomella. Dapper Caratti held down the port gondola and "Old Man" Ciocca, the starboard. Arduino, whose forehead was perpetually creased with worry, walked up and down the keel supervising his mechanics and checking the gas consumption. Fat Alessandrini began to patrol the ship as soon as he'd pulled up the maneuvering ropes. When he'd finished his inspection he came into the control car to take a turn at the elevators.

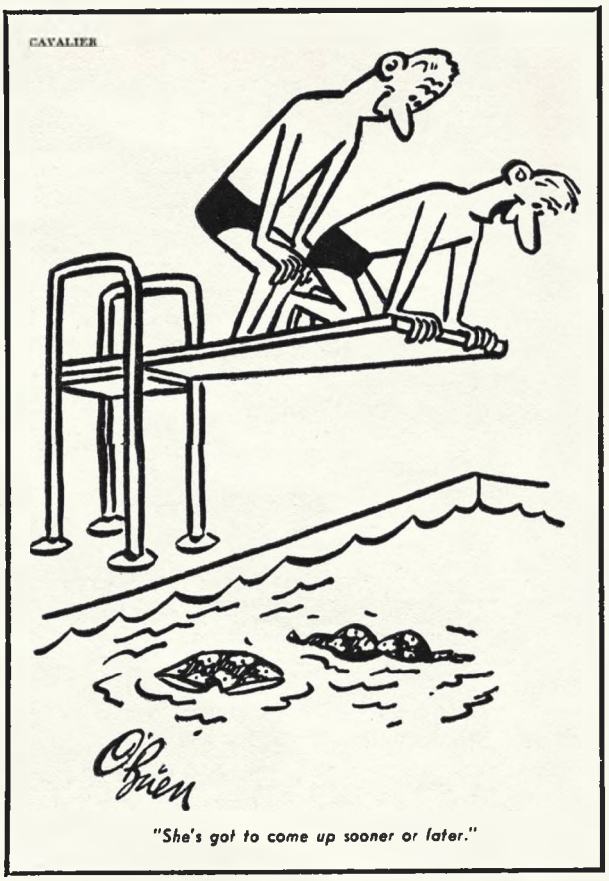
The *Italia's* route to the Pole lay between Peary's and that of the *Norge*. Once more they were flying over unknown land. The sky was so clear they could see 60 miles, but there was no land.

As they neared the Pole, a strong tail wind sprang up. Nobile asked Malmgren if it wouldn't be wiser to continue on to the mouth of the Mackenzie River after passing the Pole. But the Swede advised going back to King's Bay; then they could make one more flight. Nobile was worried because the strong wind at their back would have to be fought head on throughout the return trip.

But Malmgren shook his head. "No, this wind won't last," he said.

At 10 p.m. a high cloud barrier rose up ahead of them. "There's no getting through that," Nobile thought to himself; and he feared they would have to turn back before reaching the Pole. In half an hour they reached the clouds. The ship rose to clear sky at 2,500 feet. Nobile relaxed.

Tension on board grew an hour later; the *Italia* was now only 55 miles from its goal. At midnight Mariano, the first officer, set



"She's got to come up sooner or later."

his sextant. He squinted through the sights. Twenty minutes later he called out excitedly, "We're there!"

The engines were slowed, and Nobile ordered the helmsman to steer in a circle. The wind made a landing on the pack impossible, so the giant cross and flags were brought out and prepared for dropping. Twenty minutes later they were again in sight of the pack. The ship circled under the fog bank, and a large tricolor cloth was fastened to the cross to guide its fall.

At 1:20 in the morning Nobile leaned out a window and dropped the Italian flag. The gonfalon of the city of Milan followed; and then the little medal of the Virgin of the Fire, which the people of Forli had begged Nobile to take to the Pole. At 1:30, from an altitude of 500 feet, Nobile dropped the cross.

The Italians were overcome with emotion. The motors were almost silent, and now everyone could hear a little Gramophone playing the wistful folksong, "The Bells of St. Giusto."

Zappi cried, "Viva Nobile!" Others took up the cheer.

Malmgren held out his hand to the Italian commander. "Few men in the world can say, as we can," he said, "that they've been twice to the North Pole." Seven had done it—one Swede and six Italians. Their faces flushed. Alessandrini and the four other veterans of the *Norge* crowded into the cabin. Nobile longed to embrace them but natural reserve held him back. Instead he brought out his flask of eggnog and passed it around. Then telegrams were sent to the Pope, the King and finally Mussolini. At this point Pontremoli, who had been taking readings, hurried up to Nobile. He was agog with excitement. He had measured the horizontal component of the terrestrial magnetic field at the Pole.

At this moment Nobile's brother was anxiously pacing the deck of the *City of Milan* with Father Gianfranceschi. Newsmen clustered in front of the door of the radio-room, waiting for news. Captain Romagna came out of the room.

"Your station," he angrily told one of the foreign newsmen, "is too active!" He didn't tell the reporters that the *Italia* had already crossed the Pole: it seemed proper to him that the announcement come from Italy.

At length Rome proudly informed the world that Italians had once more conquered the Pole. As the dirigible passed over

the top of the world, according to the first dispatch, the Fascist hymn was played on a Gramophone, and the crew members raised their right hands in the Fascist salute.

For 24 hours the *Italia* sailed back toward King's Bay under the fog at an altitude of about 500 feet. The pack, pallid and uniform, was covered with snowfields, hummocks, and crevasses. The cheerfulness of the outward journey was gone. As the strong head wind increased, the men lapsed into silence. Their progress was slowed almost to that of a man crawling over the ice. An occasional loud report like a rifle shot would tell them that a piece of ice had struck the ship and torn a hole. Then Cecioni and Alessandrini would search desperately until they had found the hole and mended it.

Before long, ice had formed all over the dirigible's outer shell—to a thickness none had seen before. Biagi pulled in his aerial and knocked off an icicle two inches thick. It was hung up in the control cabin as a trophy.

Little headway was being made against the strong wind. Malmgren became annoyed, anxious. "Let's get out of this zone quickly," he urged Nobile. "Afterwards, things will be better."

Nobile ordered the third engine started. An air speed of 62 miles an hour was registered, but their ground speed did not increase appreciably. As time passed Nobile became more and more fearful of the strain on the ship. Finally, at 3 o'clock in the morning of May 25th, he ordered the speed reduced.

Now Malmgren's anxiety returned. "We aren't going ahead," he complained. "It's dangerous to stop here. The weather might get worse."

Again Nobile accelerated all engines. The hurricane raged; the ship was continually being blown off course by snow flurries. Everyone was silent, exhausted, depressed by the 30-hour struggle.

All that day the ship plowed through thick fog. At 500 feet nothing could be seen but the colorless, monotonous pack below. Malmgren took over the helm. Pontremoli and Lago were sleeping in their fur bags in the stern of the keel. Behounek, steady and impassive, was at his instruments.

Nobile directed a zigzag course trying to find a hole in the wind. Their position was uncertain: the radio signals from the *City of Milan* were only given in approximate figures, and fog prevented solar observations. The general peered anxiously out the front window, searching for the northern coast of Spitsbergen. But all he could see was fog and floe. He glanced up at his daughter's picture on the wall. She seemed to be looking back at him sadly, her eyes misted with tears.

At 7 a.m. he decided to plot the *Italia's* position by steering west and then measuring off two points. But the wind was too strong. The course toward North-East Land, due south, was resumed. Nobile walked back to the radio compartment to find out if any report had come in.

It was 9:25 a.m. Trojani at the elevators suddenly cried out, "The elevator wheel! It's jammed!"

Nobile ran from the radio-room as Trojani tried to pull the ship's nose up. But the controls were jammed. The ship headed for the ice, only 800 feet below.

"Stop the engines!" ordered Nobile. Viglieri finally released the elevator controls with a sharp blow.

The general opened all the air valves so the gas pressure would be reduced. Then he looked back. The propellers had stopped. When he turned around, he saw Viglieri tossing out four tins of gasoline that had been stowed in the control cabin. Nobile angrily reprimanded the naval officer for wasting precious gasoline.

Even as Nobile spoke, the ship, now only 85 yards from the pack, began to rise gently. Cecioni, who'd been asleep on the keel, climbed down into the cabin and, at Nobile's orders, paid out the ballast chain lying on the floor. The ship slowly rose to 2800 feet—out of the fog into the brilliant sunlight. Cecioni took the casing of the elevator mechanism apart but found nothing wrong. They decided ice had formed inside. Now the controls worked perfectly. Once more Nobile descended toward the pack to check speed and drift. Viglieri had been able to take the height of the sun while Cecioni was examining the elevators, and thus their course for King's Bay was finally set. Nobile figured they would reach their base at 3 or 4 that afternoon.

Cecioni was at the elevators. Beside him, between the pressure gauges and engine telegraph, stood Trojani, his brow furrowed as usual. Malmgren was steering and Zappi passing him instructions. In the rear of the cabin Nobile sat at the navigator's table with Mariano and Viglieri, who were taking speed measurements with the Goertz apparatus—an instrument clamped to the side of the table.

Pontremoli and Lago were still asleep on the keel. The mechanics—Pomella, Caratti and Ciocca—were all at their positions. Arduino and Alessandrini were patrolling the keel. The ship, now flying at 300 feet, was so light Cecioni had to tilt the nose down to keep the proper height.

At exactly 10:30 a.m. Nobile walked to the front of the cabin to take an altitude measurement. He looked out the right-hand porthole between the two control wheels and then dropped a glass ball. He stood timing the ball's descent with a stopwatch.

"We're heavy," said Cecioni tersely.

Nobile, startled, pulled in his head and looked at the instruments. The ship's nose was up to eight degrees but the variometer showed the *Italia* was falling a half-yard per second.

Without raising his voice, Nobile ordered the third engine started and the other two speeded up. The pack drew nearer. He ordered Cecioni to lift the nose higher. Then he shouted up to Alessandrini on the keel, "Go on top and see if the stern valves are working!"

Pomella and Caratti brought their motors up to 1400 revolutions. Ciocca, with surprising speed, had already started his. The nose was now tilted up at about 18 degrees, and the ship moved faster.

Nobile's eyes were fixed on the variometer. The ship was dropping even faster. He knew a crash was coming.

"Stop all engines!" he cried. This would lessen the crash and keep the ship from catching afire. "Take the elevators," he told Zappi.

Then he ordered Cecioni to lower the ballast chain again. In spite of the steady drop no one became panicky. Cecioni tugged at the rope that tied the chain. He swore as he struggled with it.

"Hurry up! Hurry up!" cried Nobile, knowing the chain would help deaden the fall. Then he noticed that the left engine was still running. He leaned out a porthole and shouted at Caratti, "Stop your engine!"

As he looked back he saw the stern car was 60 feet from the pack. He quickly drew in his head.

Zappi, sweat rolling down his thin face, hung tightly onto the elevator wheel.

Malmgren was squeezing the rudder wheel with his fingers. His eyes widened as he saw the jagged pack rise up in front of him.

Behounek grabbed onto something for support.

Biagi tore off his earphones and leaped up from his seat at the radio.

Viglieri and Mariano stood, feet apart, braced for the shock.

Just as Nobile reached the spot between the two controls, Malmgren flung up the wheel. He turned, his startled eyes meeting Nobile's. Instinctively the commander grabbed the free wheel, wondering vaguely if it was possible to bring the ship down with less shock.

There was a jar in the stern of the ship. A few seconds later uneven masses of ice rose up. The control car struck with a great crash.

Something hit Nobile on his head. Clearly, without pain, he felt an arm and a leg snap. Something fell, knocking him to the floor of the ship. He shut his eyes. With perfect lucidity he thought, "It's all over."

Malmgren felt himself thrown forward roughly. A sharp pain raced through his left shoulder.

Biagi struck his head on a table.

Zappi's right arm seemed to crumble.

Behounek found himself kneeling on the ice, surrounded by the wreckage of the control cabin. He looked up. The dirigible, nose in the air, was drifting away. In a daze Behounek wondered what had happened. Then he saw a hole in the bottom of the ship where the entire cabin had ripped out. From the hole trailed torn strips of fabric, ropes, pieces of metal. The left wall of the cabin was still attached to the airship. There were a few creases in the ship's envelope.

A man was standing on the gangway to the starboard engine, staring down. It was Arduino. His face wore a look of utter disbelief.

Figures began moving drunkenly on the ice pack. Trojani and Viglieri looked blankly at each other. Biagi rubbed his bloody face.

The first to speak was First Officer Mariano. "All right, all right," he said quietly. "We're all here."

The men looked around, still stupefied. The pack was formless—a contorted jumble of pointed ice crags, stretching to the horizon. It was a terrifying wilderness of ice.

"Where's the general?" asked Mariano.

Viglieri pointed. Next to Malmgren, who was seated on the ice dazedly rubbing his arm, lay Nobile. His eyes were closed.

There was a sharp, excited bark. Then Titina dashed across the ice, happy to be free from the confining dirigible. The crash hadn't even frightened her. She sniffed the little hummocks of snow and ice curiously.

Nobile opened his eyes. His right arm and leg were throbbing. His face and the top of his head ached. His chest seemed upside down. He was sure he was dying. He looked around at his men, who seemed to be in a state of shock. The wreckage was a dreary grey against the clean white snow. A stain of bright red, like blood, marked the spot where the gondola had crashed. It was not blood but a glass altitude ball that had burst.

Nobile, breathing with great difficulty, felt he had only a few hours to live. He was glad he wouldn't have to watch his comrades die of hunger one by one. For they were lost on the pack with no tent, no radio, no sledges, no food—no hope.

"Steady boys," he said when he saw everyone looking at him with despair. "Keep your spirits up. Lift your thoughts to God." No other words came to him. Impetuously he cried out, "Viva l'Italia!"

Everyone but Malmgren cheered. Then Mariano ordered those who could walk to look for salvage.

Malmgren still sat beside Nobile as though he were alone. He hadn't stopped stroking his left arm. His face was ashen, his blue eyes stared fixedly at nothing. He seemed lost in despair.

"Nothing to be done, my dear Malmgren," said Nobile.

Malmgren looked down at the Italian with glazed eyes. "Nothing but die," he said. "My arm is broken." Suddenly he got to his feet. He couldn't stand straight because of his injured shoulder. In English he said tonelessly, "General, I thank you for the trip. I go under the water!" He turned away.

"No, Malmgren," said Nobile gently. "You have no right to do this. We'll die when God has decided. We must wait. Please."

The Swede seemed surprised. He stood still, as if undecided. Then he sat down next to Nobile again.

"The field station is intact!" came a cry from behind a hummock.

It was Biagi. He's found the little emergency radio set. A moment later a box of rations was found. The men's spirits rose.

Nobile, believing there was no hope for an injured man on the unprotected ice, called First Officer Mariano. "I think I have only a few hours to live," he said quietly so the others couldn't hear. "I can't do anything for you. Do everything you can to save yourself and the men."

"There's still hope," said Mariano. "We've just picked up a case of provisions. We can hope."

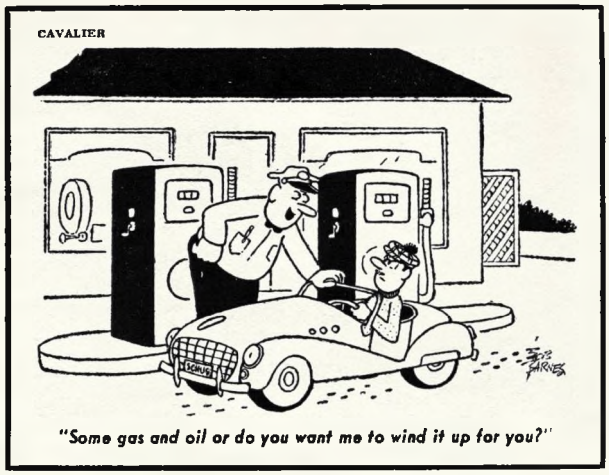
Nobile put his hand on Mariano's cheek. "Men like you ought to be saved." He looked up pleadingly. "Do what you can for my little girl and my sister's children."

"Yes, General, don't worry. I've always been fond of you. In my own way, always."

At that moment Nobile spied, between two hummocks of ice, one of the two waterproof bags he and Pontremoli had prepared for the descent at the North Pole. It had been strapped to the ceiling of the radio-room. His arm trembling, the general pointed the bag out to Mariano. "Get that sack opened!" He knew it contained provisions and a tent. "There's a sleeping bag in it too," he added. "Please bring it here to me and get me into it, if you can. Then I'll be able to die in peace." Unlike the others Nobile, who preferred to be unrestricted in his movements, did not wear the standard lamb's wool suit.

The sack was opened. The men clustered around, staring avidly as each treasure was pulled out. In addition to the tent and fur bag were pemmican, chocolate, a Colt revolver with 100 cartridges, a Very signaling pistol, and a case of matches.

Then the men slid Nobile slowly into the bag. His face was white. He clenched his teeth so he wouldn't cry out in pain. Once he was inside the warm sack he thought of Titina and called her name.



"Some gas and oil or do you want me to wind it up for you?"

She scampered gaily past him, refusing to understand. She continued frisking about, wagging her tail and sniffing the cold, clean air.

"Take care of her," he told Mariano. Then the commander put his head inside the bag and lay motionless, waiting for death.

Cecioni thought he was dying, too. He lay a few yards away, his leg bent crazily under him. He struggled to get his leg straightened out, then tied on a clumsy bandage. He cursed angrily.

Biagi searched tirelessly for more salvage. He was convinced that Arduino, seeing them stranded on the ice, had tossed overboard emergency supplies.

Behind an ice crag he came upon a wrecked gondola. It was the stern engine. Beside it sat Pomella, its mechanic. Pomella had taken off one of his shoes and was sitting motionless on the ice.

Biagi was about to call. Then he saw the empty look on his comrade's face. Pomella didn't seem to be injured, but he was dead.

Biagi sat beside the body. He took off his own finsko and tried on the sturdy leather shoe that lay on the ice. It fit perfectly. Biagi unlaced the dead man's other shoe. He put it on and then went slowly back to the main wreckage.

Nobile's head was now out of the sleeping bag. His face had lost its pallor.

Cecioni was still crusing his luck. "I've gone and broke my leg, General!" he called.

Malmgren was still sitting, rubbing his arm and staring. On his left Zappi was stretched out. He complained of a pain in his chest near one of his ribs.

"Do you think it's broken, General?" he asked.

"If it doesn't hurt you much when you breathe," said Nobile, "that means it isn't broken." The general wondered if there was any medical truth in his statement.

Viglieri, Trojani and Mariano held a conference to pick out the best place to pitch the tent. There was only a light breeze, but in the intense cold it was unbearable. They knew they'd soon freeze if they didn't find shelter. Finally a surface of ice 50 feet square was selected.

The three men set to work while Biagi, in a state of elation over his new leather shoes, began to improvise a wireless mast. Behounek leaned down to console Nobile. "We'll all be saved," he said.

The general smiled. "I hope so—for your sakes."

Soon the tent was pitched. It was nine feet square, supported in the center by a wooden pole. Designed for four men, it was now the home of two men with broken legs, Nobile and Cecione, and seven others. Nobile was dragged across the ice in the sleeping bag. He almost fainted from the pain. He was stretched out at the back of the tent, facing the entrance. Cecioni, grunting with pain, was then carried in and laid beside the general. The sleeping bag was ripped up the middle so both men could have a common bed.

By this time Biagi had set up a transmitter near the aerial. He began sending out an SOS to the *City of Milan*. Then he listened at the receiver. There was no answer.

An inventory was taken of the provisions. There were 15½ pounds, enough for 25 days. The men jammed into the tent while Mariano divided a half a pound of pemmican. Trojani ate his portion at once, his face puckering with distaste. Cecioni and Nobile put their pemmican aside. Neither had an appetite.

After the meal, the general was told of Pomella's death. The mechanic was an old friend, but his loss left Nobile unmoved. He envied Pomella, for he had escaped the lingering death that awaited the rest of them.

The men began discussing the fate of their six mates in the damaged airship. Smoke had been see half an hour after the crash on the ice. Some thought the *Italia* had fallen and burned; others thought it was just a signal.

Soon their talk died out. The nine huddled down for the first sleep most of them had had for several days. Outside, the arctic wind howled. The canvas of the tent flapped monotonously. Cecioni, half-conscious and racked with pain, rambled on until exhaustion overcame him.

When everyone was asleep, Nobile looked around at the tangle of human limbs. He wondered which of them would die first. He hoped he would be the first. Then he, too, fell asleep.

In Italy news of the flight over the Pole had caused great celebration. The dropping of the flag and cross at the Pole, according to the Rome correspondent of the New York *Times*, had "seized the popular imagination here as has nothing else recently."

But when the *Italia's* radio stopped on May 25, people were instantly worried. Officials in Rome scoffed. Nothing, they declared could possible have happened to the great Fascist dirigible.

The men on the floe slept for only a few hours. Then, while Malmgren, and Zappi stayed in the tent with the two invalids, Mariano, Viglieri, Behounek and Trojani went outside to hunt for more salvage.

Biagi continued to send out an SOS on the 55th minute of every hour as arranged with the *City of Milan*. After each signal he hurried back to the tent where the receiver was now located and put on his earphones. But there was never an answer.

Later in the day Zappi, realizing his rib was merely bruised, took over the medical duties. He made a splint with two wooden boards for Cecioni's broken leg. Nobile's leg was bandaged with strips cut from the control car's varnished covering. Then Zappi discovered that Malmgren's arm was badly mauled, but there was no break.

All day an icy wind blew. And every few minutes the salvagers were forced to return to the tent to get out of the raw blasts.

That evening Biagi intercepted the news bulletin from the station at San Paolo in Rome. Now the government, too, was becoming alarmed at the *Italia's* silence. After a meal of pemmican and chocolate, the men, depressed by the failure of the transmitter, huddled up for another "night." Cecioni was almost out of his head with pain and worry. While the others slept he threw his great hairy arms around Nobile's neck, his eyes wide with terror. He asked the general if there was any hope.

"We must trust in God," whispered Nobile.

When everyone had fallen asleep, there suddenly came a long-drawn-out crash. The tent shook.

"Everybody out!" someone cried. Cecioni and Nobile were dragged onto the snow. Other floes, driven by the wind and current, were smashing into their floe from two sides. It felt like an earthquake. Then the crashing stopped as suddenly as it had started. Snow began to fall. The new quiet was terrifying. A strange thought occurred to Nobile: the moon must be like this.

The trip back to the tent was unbearably painful to Cecioni and Nobile.

When the men had settled into their beds again, Malmgren crept up to the general. "This is a bad site," he said quietly. "We ought to move as soon as possible." He explained that the jagged ice meant that they were exposed to the action of winds and currents. "We'd better find a smoother place pretty soon," he warned.

Soon only Biagi and Nobile were awake in the silent tent. An hour later the radio operator crawled outside to transmit his call for help. Then he returned, clamped on his earphones and listened intently. After awhile he nestled into his place on the floor.

"Nothing, Biagi?" whispered Nobile.

"Nothing."

The night's sleep made everyone more cheerful. Now, at the beginning of their third day on the ice, they were determined to hold out till the end. Biagi was sending signals at two-hour intervals. There was still no reply. Zappi claimed that the radio was too weak; but Nobile told them to be patient, it was the best radio of its type.

A daily routine was established, with special jobs assigned to each man. Nobile took charge of the food. He worked out a daily menu of an ounce of pemmican and a tiny piece of chocolate per man. Titina's ration came from the general's scanty portion. Before each meal he placed her share in an old shoe.

Malmgren, completely recovered from his depression, volunteered for the difficult water detail. Surrounded as they were by tons of ice, it was still an arduous job to get enough drinking water each day. Fresh-water ice had to be found and melted. The precious liquid was passed around at mealtimes in the lid of a thermos bottle, the lid becoming dirtier and dirtier as each man drank.

That evening an event of major importance took place. Malmgren made pemmican soup. It was their first hot meal in four days. When Malmgren, after two hours of preparation, brought the steaming tin into the tent, the men greeted him with shouts of joy. The odor was delicious.

Mariano knelt next to the tentpole—where the Colt and the Queen of Italy hung—and ladled the soup into a large round nickel container. This soup dish, which had once been the top of a giant thermos, was passed from man to man.

All nine of them confessed that it was the best meal they'd ever eaten. When they had finished, Trojani told them that, as an experiment, he'd prepared a similar soup from the yellowish stuff in Rome. But even his dog refused to eat it.

Everyone laughed. It was their first laugh on the ice.

Biagi's signals were not heard that day. But the receiver was working perfectly. "We imagine you are near the north coast of Svalbard (Spitsbergen), between the fifteenth and sixteenth meridian," wired the *City of Milan*. "Trust in us. We are organizing help."

The men growled sarcastically when Biagi relayed this message. Trust in them! They weren't even looking in the right area! And why hadn't the *City of Milan* heard their radio?

Biagi believed the message had "skipped," but most of the men thought the *City of Milan* operators simply weren't listening closely enough.

The loss of the *Italia* had already precipitated elaborate search-and-rescue preparations in many parts of the world.

While Roald Amundsen was attending a banquet in Oslo in honor of the two arctic fliers, Wilkins and Eielson, a message from the Norwegian government was read aloud. It requested him to lead a rescue expedition. Amundsen, whose last two years had been darkened by his fierce feud with Nobile, rose to his feet. "Tell them," he said in his crisp manner, "that I am ready to start instantly."

Swedes, Finns and Russians volunteered their services. U. S. Secretary of the Navy Wilbur told reporters he was thinking of sending the *Los Angeles*.

At 9 p.m., the San Paolo bulletin told nothing of these international rescue plans but all about a florid round of ceremonies, fetes and speeches. Biagi then heard the *City of Milan* reply with long newspaper reports full of wild theories. One journalist was pleased to suggest that the *Italia* had probably hit a mountain.

"They ought to let the newspapers go hang," said Viglieri angrily, "and listen for us steadily."

When the men woke up on the 28th, the fourth day in the wilderness, they discovered that a strong north wind was blowing. Their floe was drifting southeast at about 15 miles a day. Soon Charles XII Island appeared on the horizon.

"We're drifting toward Franz Josef Land," said Malmgren. This unwelcome observation was confirmed when *Arctic Pilot*, a navigation book in English was found on a hummock. "The principal direction of the ice stream in North-East Land," it informed them, "is toward the east."

After dinner Mariano and Zappi began talking of a march to the coast. They had no faith in the radio, and they believed that the floe would drift far from any rescue expedition.

Malmgren nodded toward the two invalids. "With them?" he asked.

Mariano nodded.

"That's impossible without sledges," said Malmgren, the only man who knew the Arctic.

Malmgren's judgment ended the proposal for awhile but later in the evening Mariano and Zappi went up to Nobile. They suggested that the three naval officers and Malmgren go to the coast for help.

Nobile told them to call everyone in the tent for a discussion. Cecioni began to shout wildly. "They mustn't be allowed to go!" he cried. "They can't abandon two helpless men like that!" He was almost raving. "We should all march together." His eyes wild, he turned to Nobile. "If I didn't have a broken leg I'd take the General on my back!" He was answered with silence and tried a new tack. "I'll make a sledge. My arms are strong and sound!"

Patiently Nobile tried to pacify the big man, to show him that they had neither the tools nor the materials to make a sledge, nor the manpower to propel one. "If things get desperate, the others will have to go," he said firmly. Cecioni looked terrified. "I'll take care of you," said Nobile.

Cecioni began to cry like a baby.

The projected march threatened the unity of the little camp. Bitter personal differences broke out, but Nobile suppressed them with a combination of benevolence, psychology and rank.

After the broadcast that night, Mariano and Zappi insisted on still another discussion of the march.

Malmgren supported them. He, too, had lost faith in the radio. "We're drifting farther from North-East Land," he argued. "Our only salvation is a march toward Cape North."

"Who would go?" asked Nobile.

Mariano volunteered promptly.

"And how many will you be?" asked Nobile, growing weary of the same argument.

"At least four," said Zappi quickly. His thin face was eager. "The three naval officers and Malmgren as a guide."

"That will leave Biagi, Trojani and Behounek with you two invalids," said Malmgren. The Swede was a man of action and the plan made him eager and optimistic again.

"We'll take Biagi too," snapped Zappi.

Malmgren shook his head impatiently. "No, no, their one hope is the radio."

"For my part," said Behounek angrily, "I'm remaining with the general." He glared with unconcealed animosity at Zappi. "But I insist one of the naval officers stay. We've got to have someone who can take our bearings. Otherwise what's the use of the radio operator?"

Nobile nodded in agreement. Then he looked at the other men in the tent. Trojani, Biagi and Viglieri were silent, expressionless.

But Cecioni sat up in alarm. "No!" he cried. "We can all march together." He again told them he could make two sledges. He looked pleadingly from man to man.

"That's a good idea," said Nobile, as though talking to a child. "You build a sledge." Then he turned to Malmgren. "Why don't you three wait a few days? Maybe the drift won't keep carrying us east."

The three who wanted to march glanced at each other. Zappi was about to protest, but a look on Malmgren's face warned him to keep quiet.

The next morning, May 29, Charles XII Island disappeared. Soon two small islands, close together, could be seen. These two islands—Broch and Foyn—were only 10 miles away, which served to make the would-be marchers more impatient than ever.

Nobile stayed in the tent, but Cecioni, fired with energy and good purpose, had himself dragged onto the ice. He made Trojani and Behounek bring him steel tubing from the cabin wreckage. He hammered the tubing into a crude skeleton of a sledge. All day he worked feverishly, grumbled fiercely, and cursed Behounek and Trojani for their slowness and stupidity. The two shrugged their shoulders and continued to look for bits of wire, aluminum and sticks.

Mariano and Malmgren disappeared on a reconnoiter. Zappi and Viglieri rearranged provisions. And every two hours Biagi sent out an SOS, running back to the tent to clamp on his earphones and listen for a reply. Then, good naturedly, he would join Cecioni's labor battalion.

That evening, as they ate, they talked of several things. A wide channel had opened up about 100 yards away. They wondered if it extended all the way to the islands. They discussed their six comrades on the *Italia*. Some thought the ship had exploded, the others that it had landed not far away. Biagi suggested that two men hike toward the place where the smoke had been seen. Perhaps they could find their comrades and get the rifles stowed in the keel. But such an expedition over the pack seemed too vague and dangerous and was finally abandoned.

Biagi faithfully continued sending his SOS—with no results. Everyone but Nobile had given up on the radio. The *City of Milan* was transmitting nothing but newspaper reports and hundreds of personal telegrams each day.

"They think we're dead," said Trojani bitterly. "They're not even trying to listen to us."

On the ice talk centered around their Colt revolver. Malmgren insisted that it was a poor weapon in the Arctic. Nobile disagreed. "Our Queen," he said, "is a fine shot and has hunted bears and seals in Spitsbergen. She told me a Colt was excellent for big game."

Malmgren politely refrained from expressing his opinion of the Queen as a hunter. "Tell me," he said to the general, "do you think that we wouldn't have had a crash if we'd gone straight on to the Mackenzie as you wanted?"

"That's hard to say," answered Nobile. "At least we wouldn't have had to fight wind for 26 hours." Then he saw the look of guilt in the Swede's face. "My dear Malmgren," he added with a smile, "you only gave me the advice. I didn't have to take it."

After listening to the 9 o'clock news bulletin, which, next to the evening meal, had become the most important event in their daily life, Zappi again brought up the subject of the march. The arguments repeated themselves with maddening monotony. Cecioni still opposed wildly. Nobile continued to delay the issue by talking optimistically of the radio.

"While we put it off," snapped Zappi, who was fast losing his respect for Nobile's braided general's cap, "the provisions are growing less."

Mariano, though still respectful of the general, agreed with Zappi.

For a moment Nobile was silent. He absently scratched Titina behind the ears. Then he said, "No, you'd better put it off a few days." He suggested they let Cecioni demonstrate his handmade sledge the next day. It would be most effective, he thought, for Cecioni himself to prove how difficult it was to drag a helpless man across the terrible ice pack.

"Carrying a load like Cecioni is absurd," said Zappi brutally. "We'd better stop wasting time and decide right away to start."

"All right," sighed Nobile. "Why not just two of you go? You could move faster."

"No," said Mariano quickly, "there's got to be at least three. Then if one gets sick, the second could stay with him while the third goes on."

"Four!" Zappi snapped. "We need the three naval officers and Malmgren."

"We could make six miles a day," said Malmgren eagerly. "Nine, when we're nearer land."

The map was examined. From Foyn Island to Cape North was 100 miles. That meant the trip should take about 15 days.

"All right," said Nobile with a sigh of resignation. "Now I'm going to ask each man whether he wants to go."

Malmgren, Zappi and Mariano quickly nodded their heads.

Nobile looked at Viglieri. The tall, quiet man nodded.

"I'll go!" cried young Biagi.

Behounek stood up. "I'm staying with the general," he said stolidly.

Trojani glowered at Biagi. "Me, too," he said.

"I'll think things over," said Nobile. "Tomorrow we'll try to shift the camp 500 yards. Afterward, we'll see."

"How can we move all the supplies and the injured in one trip?" Zappi objected.

"By making two trips," Nobile said simply.

Mariano spoke for Zappi's objection. In the fog, he declared, some would get lost. It was obvious to the general that neither man would stay on the floe much longer.

Nobile lay back and shut his eyes, concluding the argument. Malmgren, trying to find a comfortable place for his injured arm, lay down at the foot of the sleeping bag. In a few minutes Cecioni was mumbling in a half-sleep. Soon everyone but Nobile and Mariano was asleep. The general watched his first officer, who was staring out toward the ice pack. The last few days, thought Nobile, had changed Mariano a great deal. Now he was too eager to leave his friends.

Finally Mariano dropped off to sleep.

Nobile closed his eyes. A few minutes later Cecioni woke up with a painful start and convulsively grabbing the general's arm. The two talked in hushed tones: Nobile made Cecioni repeat a prayer. Then there was silence on the ice pack except for the rustling of the light wind, which was driving them always to the east.

All that night the sun was under dark clouds, creating a semblance of nightfall. Early in the morning of the 6th day on the floe, the sun came out. Nobile poked Cecioni, who woke up Zappi. The naval officer shook Mariano.

"Make an observation," whispered Nobile, "and check our position."

Zappi and Mariano both left the tent. A few minutes later Zappi's sharp face peered in the tent. "There's a bear!" he said in an undertone.

Everybody was immediately awake. Malmgren sat up, startled. "Give me the pistol!" he said "I'm going to kill it!"

Nobile sat up and painfully stretched toward the tentpole. He handed the Swede the pistol and cartridges. There was no sound as Malmgren hurriedly loaded the gun.

"Keep quiet," warned Malmgren. Then he crept out onto the ice pack. Everyone followed. Even Cecioni and Nobile were helped onto the ice. In their excitement they felt no pain.

The sun was once more covered with clouds. It was bitter cold, but there was no wind. The clear, translucent air made the bluish ice crags stand out distinctly against the glaring white snow. Finally they saw the polar bear, 25 yards away toward the two islands.

"Shh! Don't move!" whispered Malmgren, turning back toward the tent. Then he stole forward slowly, the pistol clutched in his hand. Mariano and Zappi, armed with a knife and axe, followed warily at a distance.

The others stood stockstill and silent in front of the tent door. Each was armed with some crude weapon—a nail, a file or a piece of tubing. They held their breaths as they eyed the animal. It was the first time any of the Italians had seen a polar bear outside of a zoo.

Nobile smothered Titina to his chest so she couldn't bark. She struggled, eager to join in the hunt.

This was the tensest moment of their six days on the floe. The bear could mean weeks of fresh meat—or an immediate death for all of them. In spite of the danger Nobile could hardly keep from laughing. It was a strange scene: nine ragged, dirty, bearded men stalking one huge white animal which was standing placidly as a cow staring at them, slowly wagging its head.

Malmgren crept to within 15 yards of the bear. Then he raised the Colt slowly and fired.

"He's hit!" cried Biagi.

Malmgren ran toward the bear, followed by Mariano and Zappi. The Swede fired two more shots. The bear turned and ran clumsily across the floe. After a few steps it fell. It didn't move.

There was great joy in the camp that day. Now they had 450 pounds of fresh meat and a bear skin! Malmgren was the hero. Everyone slapped his back, praised his outstanding skill with the pistol.

When the hunter came triumphantly back to the tent, Nobile extended a hand in congratulation. "You see," laughed Nobile, "the Queen was right!" The floe on which the action had taken place was henceforth and ceremoniously known as the "bear floe."

They were too busy that day for arguments. After dinner they all dropped off to a euphoric sleep. With the extra 450 pounds of food, the days of their lives no longer had to be counted off on the little calendar which hung on the tent pole. And now, thought Nobile, the proposed march could be delayed for at least a week.

But next morning, May 31, Zappi began talking of the march again. He had become obsessed by the floe's drift. Now Foyn Island was only seven miles away.

Mariano agreed with Zappi.

"We can all go together!" Cecioni said.

Zappi looked down at Cecioni coldly. "Last night," he said. "we tested your sledge by bringing one hundred pounds of meat from the bear floe. It's just forty yards but it took us over an hour."

Nobile stopped Cecioni's protests. He felt he no longer had a right to hold up the marchers. "Get ready, Zappi and go," he said. Then he asked for Malmgren.

A few minutes later the Swede crawled into the tent. "You're the only one who knows the Arctic," said Nobile. "Trojani and Biagi think you ought to stay on the floe."

"But the hikers need me," replied Malmgren. Then he thought a moment. "I'll do what you wish, General. Stay here or go with them."

"If you want to go," said Nobile, "I have no objections."

That day, the seventh on the floe, Malmgren prepared bear broth. The men eagerly awaited the moment when the broth was carried into the tent. But they were all bitterly disappointed. It had no taste and they couldn't chew the tough lumps of half-raw meat. The pemmican was much better.

After the bear broth, Mariano turned to leave. "I want to speak with you alone," said Nobile.

Mariano ignored him and went onto the ice. Then he began speaking loudly to Zappi, knowing that Nobile could hear him. "No, we two should go! We're such good friends!"

Nobile realized that the statement had been for his benefit and he decided to make no more objections. He called everyone for a final conference.

"Three will leave," he said. He ordered the supplies and clothing divided. The pemmican and chocolate and malted milk were distributed equally. They all agreed the bear meat should stay on the floe.

"We'll take the pistol," said Zappi.

"You will not!" shouted Cecioni.

"What should we do if more bears come along?" protested Viglieri. Trojani nodded in agreement.

"We'll keep the pistol," decided Nobile. "You take the knife and axe."

The marchers were given windproof suits, and all the extra woolen clothing. The charts and instruments were shared. Each of the three marchers took a watch and compass.

"When do you intend leaving?" asked Nobile.

"This evening," said Malmgren. Mariano and Zappi went outside to make preparations. But Malmgren squatted down at the general's feet. They were silent for several minutes.

Finally Nobile said, "What do you think will happen?"

They don't understand," said the Swede, nodding toward his two companions on the floe, "how difficult and dangerous a march on the pack is."

"And we?"

"You'll have the drift. It'll carry you to the east." He paused and then said in a lowered voice. "Both parties will die."

Half an hour later Biagi came into the tent with a heavy frown on his face. He sat down and stared accusingly at Nobile.

"What's wrong, Biagi?" asked Nobile with affection. He still admired the young man's tremendous energy and boundless optimism.

"I'm fit to march, too," he said sullenly.

"Why, of course, my dear Biagi," said Nobile. Then he added, "If you think it better to go, then you shall go. You've done your duty and you needn't have any scruples about leaving. Go and get ready."

Biagi's face brightened. He jumped to his feet and hurried out of the tent.

Viglieri, who had been sitting silently next to Nobile, said quietly, "If he's going, then I want to go too."

Nobile nodded. It was logical and just. He knew that Viglieri,

who had been quiet for so many days, had always thought his only hope was to march.

Nobile called Malmgren, Mariano and Zappi. "Biagi is coming with you," he said. "And all the others who can walk. I'll stay here with Cecioni."

The giant with the broken leg began to protest but Nobile quieted him.

"The two invalids can't stay alone," growled Zappi.

Mariano agreed.

"I'll look after Cecioni," insisted Nobile. He glanced around at the men. "I intend that whoever wishes to go shall go. Now I'm going to question you one by one . . . for the last time!"

He suddenly turned to Viglieri. It took the naval officer off his guard. Viglieri hesitated and then said, "We made up our minds before that just three should go. I don't see why we have to go back on our word."

Behounek hunched his massive shoulders. "I'm staying with the general."

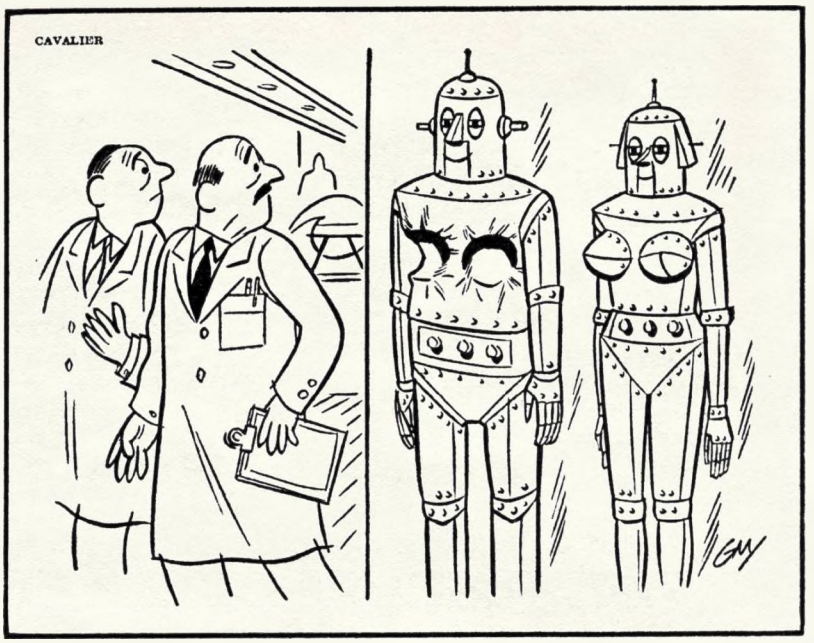
"Me, too," Trojani said.

"All right," said Nobile, looking at Biagi. "Go and get ready, then."

Mariano, Zappi and Biagi left. Malmgren stayed. He sat silent at the general's feet. "Well," he said after a minute, "if they leave, I stay."

"Why, Malmgren?" Nobile asked.

Malmgren's steady blue eyes seemed to go right through the Italian. "I could never go back to Sweden and say I left the leader of the expedition and another sick man here without any help." He looked out the tent door. "It'd be unworthy of a gentleman." He got to his feet. "No, if Biagi leaves, I stay. He's the only hope you have left."



Minutes passed. No one in the tent spoke. Then Biagi sidled in through the opening. He sat down cross-legged and looked fixedly at Nobile.

Then he began to grin.

"Forgive me, sir," he said impulsively. "It was a moment of weakness. I've decided not to go. You might need me for the wireless."

Biagi's smile was catching. First Nobile smiled, then Viglieri and Behounek and Cecioni. At last even Trojani broke into a semblance of a smile.

Food for three was put into two small bundles and the knapsack found near Pomella's body. The marchers also took the blanket, two bottles of gasoline, half the alcohol from the compasses, and rope. Nobile gave them the only pair of ice glasses, three pair of ski socks, catskin slippers and Russian felt boots.

Now Malmgren, ready to go in Biagi's place, asked for the radio operator's shoes.

"No," replied Biagi without hesitation. He explained that he had to make countless trips from the tent to the transmitting set and back. Biagi kept his shoes.

The Swede, his pack prepared, sat down next to Nobile for a last talk. Now that he was about to go into action, all his depression had gone. But he regretted leaving Nobile.

"I'm sure we'll get through!" he said.

"And then?" asked Nobile.

"Then I'll come back to look for you myself with Swedish airplanes! Put four red flags at the corners of a square, 220 yards on each side, with the tent in the center. And be sure to eat the bear meat first and save the pemmican for a march when everyone is able-bodied. Another thing, don't let the bear meat touch the ice. Hang it up." He put his hand on Nobile's shoulder. "Keep quite still, General," he warned. "Then your fractures will heal soon."

"We will be all right, Malmgren," said Nobile.

"Don't use the radio for 20 or 25 days," went on Malmgren quickly, almost guiltily. "Save the batteries until we've had time to get there and send a boat as near you as possible."

Nobile asked if they should change their campsite.

"Yes, find a safer spot. Keep your eye on that channel. If it comes within fifty yards, get out of here as fast as you can."

The Swede warned about the movements of the ice and then asked what messages Nobile wanted sent to Italy.

"Tell them my comrades and I are staying here calmly," said Nobile. "Just see that they look after our families."

Malmgren held out his hand. "All right, General. And just remember that the greater number of lost expeditions have been saved at the last moment." He stood up. "If you have any letters for your families give them to us."

The men staying scurried for paper and pencils. All but Trojani. "What the hell's the use?" he said, giving Nobile his fountain pen.

The tent grew silent, the silence accentuated by the scratch of pen and pencils. Nobile wrote to his wife, Viglieri to his mother. Behounek began a letter to his fiancée. Tears rolled down his filthy cheeks. Only Nobile, who was struggling to suppress his emotion, and Trojani, who was impassively wrapping up money for his wife, remained dry-eyed.

Cecioni wrote a few lines, then dropped his head down and sobbed. Nobile picked up the letter. It was full of his grief and despair.

"No, not like that, Cecioni," said Nobile. "It's not certain we're going to die here." He crumpled up the letter. "Here, let me write. You copy it." Putting his own letter aside, Nobile wrote Cecioni's wife a long letter full of hope and advice. When he finished, he wrote seven pages to his own wife, making many suggestions for Maria's education.

"Perhaps God wills that we shall embrace each other again one day," he concluded. "That will be like a miracle. If not, don't mourn my death but be proud of it."

He added a few lines to Maria. "You must keep Mummy from crying, if I don't come back again. Titina is perfectly happy here, but perhaps she'd still rather be with you."

The letters were handed over to Malmgren. Then Nobile distributed the last meal they all would share—three tablets of malted milk and a few lumps of sugar.

There was little talk during the meal. Afterward Mariano slid over and embraced the general. So did Zappi. The men were weeping. The bitter quarrels of the past days were forgotten.

Nobile embraced Malmgren.

Mariano, remembering that Cecioni's greatest fear was the widening channel went up to the big man. "If it stretches up to the island," he promised, "we'll come back to get you. Don't worry. We'll march quickly and bring help."

The three marchers went outside and fastened the bundles on their backs. Nobile called from the tent, "Good luck. God go with you!"

Slowly the marchers moved away.

Viglieri, Trojani, Behounek and Biagi stood for a long time in

front of the tent, watching the three figures struggle across the ice pack toward the islands. At last they filed back into the tent.

The day after the Malmgren party left, Viglieri passed his time scanning the pack through glasses. The men had forgotten about him when he let out a shout. "I think they're turning around!" he called to those in the tent. "Maybe the channel runs all the way to the island!"

"They're coming back!" cried Cecioni joyfully.

"No, they're not!" said Nobile brusquely. "They're never coming back!"

The utter finality of the general's statement sobered the others. From that moment on they thought less and less of the marchers.

A new schedule was set up. Viglieri was put in charge of overhauling provisions and making solar observations. Trojani was made chef with Behounek as his assistant. Cecioni, who had found a large needle in his pocket, was put to work making slippers. His first achievement was a pair, made out of two waterproof bags, for Viglieri's massive feet.

Within a day their industry had revived their spirits. They were now united, an abandoned family with Nobile as father. Cheerfully the four able-bodied men instituted and divided a night watch. They kept a continual lookout for bears and dangerous rifts in the ever-moving ice.

Nobile followed Malmgren's advice except as it applied to the radio. He still felt their only hope lay in the radio. If, as he was convinced, the *City of Milan* wasn't listening faithfully, perhaps another operator would pick up their signals. He wrote out a message in Italian and French and gave it to Biagi.

"Starting tomorrow," he said, "transmit it every day for an entire hour."

Biagi, who obeyed an order without discussion, nodded.

One day, while sending out a message, Biagi heard a sound behind him. Turning, he saw a great bear. It had knocked down one of his wires. Biagi ran to the tent. "There's a bear!" he cried. "Where's the pistol!"

Nobile, forgetting his broken leg, got to his feet. He reached for the Colt which now hung on the center pole directly under the Madonna of Loreto. A stab of pain went through his leg. Biagi grabbed the gun and ran outside. He fired three times. The bear trundled off toward Foyn Island.

The next day, while eating, they heard Titina barking furiously on the floe. Behounek and Viglieri rushed out of the tent. They were right—it was the bear again. The tiny white terrier was chasing it across the ice. The bear didn't return for three weeks.

On their tenth day, June 3, an icy north wind began blowing again. The men huddled together as protection against the increasing cold. The tent cover flapped continuously. Soon Broch Island disappeared and Foyn began fading rapidly. The men felt as if they were on a sailing ship.

Nobile realized that something—anything—must be done to sustain morale. He decided that when the floe drifted within 10 miles of Cape Leigh Smith he'd order the four able-bodied men to march for land. He told Cecioni of the plan.

The big man protested mildly, almost as a formality. He had grown calmer with each passing day, till now he seemed reconciled to staying alone with his leader.

Nobile explained his plan carefully to Trojani and Behounek; Viglieri and Biagi, he knew, would obey him without protest.

Trojani shrugged his shoulders. "I'll do what you command," he said.

The general turned to Behounek.

"I don't know why you ask me this," said Behounek sharply. "I've come here with you and I'm not going away without you."

Nobile didn't know whether to be pleased with the professor's loyalty or dismayed by his belligerence. Certainly the man was not easy to understand. Every morning, his face filthy, his hands black, the shoes almost falling from his feet, he would shuffle onto the pack and take his scientific observations. It was a religion to him. It sustained him.

After their meager dinner that evening, Biagi, as usual, intercepted the San Paolo broadcast. The others were watching him with half-hearted interest. Suddenly his face lit up.

"They've heard us!" he cried.

The men jumped up and crowded around him. Nobile dragged himself across the tent floor. Biagi was writing as fast as his trembling fingers permitted. Nobile leaned over his shoulder and read aloud, "The Soviet Embassy has informed the Italian Government—"

The rest of the dispatch soon followed. A young Russian farmer from Archangel, Schmidt by name, had picked up fragments of their SOS on the evening of June 3.

Then the tent was a scene of wild joy. The men hugged each other. Those who could walk danced around. Trojani himself was jubilant. "But do you truly believe we shall return home?" he asked Nobile.

"It all depends," said the general. "We can hope." He ordered a celebration banquet of a ninth of an ounce of malted milk and half an ounce of sugar. Alcohol was carefully drained from the compasses. The men drank a toast to their unknown friend, Schmidt.

But the celebration on the floe was somewhat premature. Few outside of the Soviet Union believed the Russian operator had actually heard them. Those at King's Bay, in particular, insisted it was all a hoax.

The next day, their fourteenth on the ice, Biagi transmitted with zest. That evening everyone except Trojani, who was sentry, listened intently to the evening bulletin.

Biagi copied out the bulletin as he spoke. An American radio amateur had intercepted a radiogram from the *Italia* survivors. "No shelter except remains *Italia* which crushed against mountain," said the false message. Then it gave their position—near the 85th parallel in the Arctic Ocean.

The men were frantic over the hoax. It was unintelligible, but it was scrambled artfully enough to be convincing. And it would make people even more skeptical of the true report from Schmidt.

Nobile passed around an extra ration of sugar to ease the blow. At this moment Trojani, the hairs in his nose frozen stiff, stuck his head into the tent. When he learned what had happened he sighed. "These ups and downs of hope are enough to drive you crazy."

"Not quite crazy," replied Viglieri calmly.

A moment later Biagi, still at the receiver, held up his hands for silence. The men waited expectantly. It was a newspaper dispatch from the *City of Milan*. That morning, it said, the supply ship had heard fragments of what could have been a call from the *Italia*. The message had been, "SOS—Franceso."

Biagi's head bobbed wildly. "That was ours!" he cried. "They ran together the words 'Foyn' and 'circa'!" Then Biagi's face fell as he read aloud the rest of the dispatch: the Italian officials were sure the message was another fake.

"I'll make you a promise, Biagi," consoled Nobile. "When you really are heard by the *City of Milan*, you'll get an entire chocolate bar as a reward."

The following day Biagi transmitted a new message. "SOS *Italia*, Nobile, longitude 28 degrees east, about 20 miles from the northeast coast of Spitsbergen."

After a dinner of bear stew, which Trojani by some magic had managed to make tasty, the men settled around the receiver for the evening bulletin.

Biagi grew impatient as he copied page after page of trivial news. Finally he took off his earphones and began gossiping with the others. A few minutes later he lazily put the earphones on again.

"*Italia*! *Italia*!" he heard. He gave a start. "They're calling us!" he shouted.

"It can't be," Nobile murmured.

But Biagi's face was radiant. " 'The *City of Milan* heard you well this morning,' " he repeated aloud.

The men hung on Biagi's words, holding their breaths for fear of disturbing the reception.

" '—and has received your coordinates. Give Biagi's registration number."

The men laughed and shouted. They looked years younger in spite of their filthy, bearded faces. Nobile decreed a special feast of five lumps of sugar, 10 malted milk tablets, and two ounces of chocolate. Never had there been such a feast.

Then Nobile remembered his promise to Biagi. He ordered Vigileri to hand over an entire half-pound chocolate bar.

The young operator, his lips moving in anticipation, took the candy. Slowly, ceremoniously, he tore off the wrapping. The men watched him with mixed pride and envy.

Biagi opened his mouth for a bite of his fantastic wealth. Then he glanced around, closed his mouth. Without a word he broke the bar in two, offering his comrades the bigger piece.

The next morning, the 16th on the ice, Biagi heard a fragment of a message from the *City of Milan*. "Be ready to make a smoke signal. Airplanes will—" At that point the message broke off.

"We are on the pack drifting slightly with the wind," radioed Biagi in reply. "We will make smoke signals and fire Very lights as the airplanes approach. Remember that our batteries may run out in a few days but we shall still be able to receive." He also gave the local weather conditions and listed the provisions they needed. Then he told the *City of Milan* about the Malmgren party, giving their approximate position.

There was great hubbub in the little camp as preparations for the arrival of the planes were made. Using the liquid in the glass altitude balls, the men painted wide red stripes on the tent. The cartridges for signalling were a little too large, and Cecioni went to work filing down the chamber of the pistol. In the process the head of a cartridge flew off. There was a small explosion and the tent began to burn. Nobile smothered the blaze with his jacket but the men were frightened. Now that rescue seemed near, their only home, and main hope for survival against the freezing winds, took on new importance.

The next few days were the happiest on the pack. Sentries pulled their shifts eagerly, vigilantly, not as a meaningless chore. Foyn Island was nearer than ever.

The greatest danger now lay in the widening channel. There was also a good chance that at any moment their floe would split in two and dump them in the icy water. Nobile radioed the *City of Milan* for medical equipment and a collapsible boat. He advised sending a hydroplane. "The pack here is extremely broken. Canals often open which are large enough for a hydroplane to moor."

But the *City of Milan* cut them off. "You had better economize your batteries," they interrupted almost pettishly. "It is our business to speed up the rescue work. Three Swedish planes are on the way. Captain Riiser-Larsen is in the *Hobby* near Maffin Island but blocked in the ice. The Russians are preparing a large ice-breaker while we are trying to reach you with dog teams, and to meet your three comrades who are marching for Cape North."

The news on June 11, their 18th day, was so good that they forgot their hunger pangs. The Swedish expedition was en route to King's Bay. The *Hobby* was clear of ice and pushing ahead with Riiser-Larsen and two small planes aboard. Major Maddalena had left Italy in the hydroplane, S-55. Major Penzo was about to leave in another. A Russian ice-breaker was to sail that day from Archangel with two planes and another would leave soon. Finland was sending a tri-motor with skis and Germany had offered men and machines.

But those on the ice got their greatest hope from the announcement that Amundsen was almost ready to take off. They knew that if anyone could find them, it would be the old Norwegian.

"It's an interesting problem, our rescue," remarked Nobile after listening to all these details.

"It's a hell of a problem," Trojani grumbled. "And if they don't hurry up, they won't solve it."

Two Russian ice-breakers, the *Malygin* and *Krassin* were also on the way. The men on the floe knew the Russians were just obstinate enough to push through until they found them. The idea of going back on a ship appealed to them. Reverently they put their dream into words: one day the stillness of the pack would be broken by the blast of a whistle; then they'd see smoke in the distance and the ice-breaker would approach.

"We'll get on board," mused Cecioni, "and, without even stopping, go straight to Archangel and thank Schmidt!"

Everyone laughed. They made jokes about the red flags they'd hoisted beside the Alpini pennants flying over the tent.

"When the Russians arrive," said Biagi, "they'll be glad to find their flag flying beside our own."

Then the talk shifted to Malmgren, Mariano and Zappi. The chances of the three crossing the ice pack safely were gone over and over. Finally the discussion drifted into a gloomy silence.

If only they had had faith in the radio, repeated Nobile to himself. He squinted across the floe into the distance. His eyes were smarting. It was snow blindness.

By now the heat of their bodies had melted the snow and ice under the tent. They leveled off a new position a few yards away, then re-pitched the tent. That night they slept in real comfort on a soft, freshly-made bed of snow.

On June 12 a turbulent west wind blew them away from their two islands. To make matters worse the radio was working badly. No replies could be heard from the *City of Milan*. Hours later, when the storm was over, their two islands had disappeared and the seagulls had flown away. They were back on the face of the moon.

Next day a strong wind returned, agitating the ice dangerously. A channel about seven yards wide suddenly opened near the tent. The sentries, their teeth chattering and their face battered by the wind, watched the channel closely. By the next afternoon the cleft had widened. A few sheets of ice broke away from the floe. Then a large block near them slid into the channel. Trojani, the man on duty, gave the alarm. The men rushed out of the tent, Cecioni and Nobile bringing up the rear on their hands and knees.

An argument sprang up. Half wanted to move, half didn't. Nobile pointed to the bear floe 40 yards away. "We'll move there," he said. "Right now."

The two invalids sat on the ice while the others took down the tent and shifted the stores. Their floe, after 20 days of habitation, was a dreary place. The ice was dirty, covered with puddles of slush. Everywhere were scraps of wreckage—twisted tubing, broken instruments, rags.

Out of a desperate pride, and to spare the men from carrying him, Nobile started to crawl to the new campsite. But after a few yards he came to a wide crevasse. Humiliated, he crawled back to the tent. Finally, he was loaded into Cecioni's improvised sledge and carried, litter-style, from floe to floe by the four able-bodied men. It was a dangerous trip and painful to Nobile. Cecioni, who was almost twice as heavy, was then loaded into the sledge. The porters struggled on and Cecioni moaned in pain for more than hour. Finally the new floe was reached. The four men, exhausted and gasping for breath, collapsed on the ice. The sweat froze on their faces.

The spacious new location was surrounded with boulders of ice ten feet high. Beyond the hummocks lay little flat stretches that rested the eye and mind. Except for a few footprints the floe was spotlessly clean, with no wreckage to remind them of the disaster. The only landmark was the bear's skeleton which jutted up short and thick between two hummocks. Next to it lay a great black mass, the animal's liver. It was a good place.

In three hours everything had been moved and the tent, now a faded pink, set up. At first the men were uncomfortable inside the tent. Any new home was a little difficult to get used to.

That day Biagi was informed that the *City of Milan* would only listen to him at 8:55 p.m. This was annoying: it meant they had to forego one of their greatest daily pleasures, the 9 p.m. bulletin. But Nobile decided not to protest. For the next few days reception was bad. The *City of Milan* picked up no more than fragments of Biagi's messages. But King's Bay didn't seem at all worried.

"We have nothing new to tell you," they said each night with monotonous regularity. "Goodbye till the next hour." Then, instead of listening for Biagi's reply they would switch off at once and send personal telegrams to San Paolo.

"When you call us you must listen in too," was Nobile's curt message the next day. "We might have urgent news to communicate."

But the next message from the *City of Milan* was the same, "Nothing to tell you. Goodbye till the next hour."

On June 17, the 24th day, Nobile dictated an angry message. "For three days we have not managed to give you our co-ordinates because you persist in only listening to us at 8:55 p.m., when the reception is often very bad. Once more, then, we beg you to listen in to our station for ten minutes every time you call us." The message gave their new position—about five miles from Foyn Island. The weather was good, said Nobile, and visibility excellent. Montagna should take advantage of conditions to send at once the minimum supplies. "Our situation," he concluded, "is still dangerous."

Now that they were once more near Foyn Island they were again visited by birds and bears. During a meal the sentry, Trojani, stuck his head in the tent. "There's a bear," he said with quiet formality.

It reminded Nobile of a butler announcing an unwelcome guest.

Biagi seized the pistol and ran out to the ice. The bear was out of range, standing over Pomella's shallow grave. He had uncovered an arm. Biagi shouted and fired for effect. The bear lumbered off. When the radio operator told of the uncovered grave, Nobile sighed.

"Well," he said, "we'll have to bury poor Pomella in the sea."

Later in the afternoon a faint hum was heard. It grew louder. The men shouted and ran about helter-skelter as two planes approached from the south. Nobile ordered signal fires burned and the Very pistol shot. The two planes came within two miles and then turned back. Biagi immediately radioed that the planes had been sighted. The following morning the *City of Milan* told them the planes piloted by Riiser-Larsen and Lutzow Holm—would try again that day at the same hour.

The men kept constant watch all day but the planes did not appear. That evening they learned through the bulletin that Maddalena had arrived in his hydroplane at King's Bay. A greater thrill came with the announcement that Amundsen had left Tromso that day for Spitzbergen in the French plane, the *Latham*. Once Amundsen took charge of the rescue work, they were as good as home.

At 7:05 a.m. on the 19th of June, the men on the floe heard a plane. They knew it was Maddalena, who had taken off from King's Bay at 4:25. Trembling, prayerful, helpless, they watched him circle twice to the northwest, coming within a few miles. Then at 7:30 the big plane turned and disappeared.

Nobile quickly sent instructions. "At least two airplanes flying parallel should be used," he advised. "Fix up a wireless in Maddalena's hydroplane. Observe with sun at your back. Today we also saw Riiser-Larsen but he was too far east. Tell him all I have said."

Later another Norwegian plane came close. It travelled in zigzags from Foyn Island heading toward the floe. But when only a few miles away it suddenly turned around and flew away.

The next morning, their 27th on the pack, Biagi learned that Maddalena had left King's Bay at 6 a.m. He was carrying a radio.

Nobile ordered Viglieri and Trojani to prepare the smoke signals and Very lights. Biagi stood by the radio. Behounek was holding a tin to be used to flash signals. Viglieri stood on top of a hummock to shout directions to Biagi. Trojani was ready to light a fire prepared with gas, oil, rags and parrafin.

Nobile and Cecione sat on the sledge. The big man held a tin foil "mirror." To protect his snow-blinded eyes, Nobile was wearing an eye shade made of the wrapping from Biagi's chocolate bar.

At 7:35 Biagi made contact with the plane. Half an hour later engines could be heard. Everyone waited tensely. As soon as the hydroplane appeared, Viglieri shouted directions. Biagi passed them on to Maddalena: "Turn five degrees to your right."

The plane did wheel to the right!

"Ten degrees to the left!" called Viglieri when the plane went too far to the right.

A moment later the hydroplane was heading straight for them.

"The tent is on your course," radioed Biagi. "Three kilometres in front. Come ahead!"

The plane kept coming toward the floe. It swooped down to 100 yards.

Biagi gave the signal—"VVV!"—"You are on top of us!"

The men were hysterical. They could see the Italian colors painted on the wings. As it passed overhead, two figures leaned out of the cabin and waved wildly in greeting.

Viglieri and Behounek were shrieking like madmen. So were Biagi, Cecione and Trojani. Nobile tried to shout but his throat was stopped tight with excitement. He took off his general's cap and waved it. The men began shouting unintelligibly to each other and sobbing and laughing. Titina ran frenziedly over the ice barking shrilly.

The plane had passed far beyond. Now it wheeled and started back—but in the wrong direction. It changed its course several times, as if searching. It had lost sight of the floe.

Biagi ran to the transmitter. Frantically he signaled the plane. But it continued to wander aimlessly, out of touch.

"Oh, hell!" said Trojani. He had known all along they'd never be rescued.

Biagi kept running madly from transmitter to receiver. After half an hour he made another contact with the plane. The men sighed with relief. Their faces were covered with nervous sweat. Once more the plane was guided back painfully to the floe. As it neared the tent Nobile shouted, "KKK!"—the code signal to drop the provisions.

Biagi was sending the message even as Nobile spoke. A figure leaned out of the back of the plane's cockpit. Packages fell. All the men, including the general, began to shout. The plane circled back; more packages were thrown out. Then the hydroplane wheeled and headed south.

Viglieri, Trojani and Biagi scattered over the ice searching for the far-flung packages. Soon they began bringing them back. There were six pairs of shoes, two collapsible boats (which were greeted with the loudest shouts of glee), smoke signals, two sleeping bags, two rifles with broken stocks, a few shattered batteries and a bag of provisions. The men quickly put on the leather shoes and danced around the ice. Viglieri watched. There were no shoes large enough for his large feet.

But when they took an inventory of the provisions the men were cruelly disappointed. Instead of pemmican and chocolate they found oranges, lemons, a pot of marmalade, a package of cocoa, 50 bananas and 30 fresh eggs—most of them broken.

That night, June 20, Nobile radioed the *City of Milan*: "Thank you for the thrill you gave us this morning when we saw our country's colors overhead." He asked for more batteries (better packed, this time!), pemmican, a Primus stove, medicine, snow glasses, wooden stocks for the smashed rifles, and "a pair of *very* large shoes for Viglieri."

He asked for news of Malmgren, Mariano and Zappi and concluded by advising. "I think you should put yourself entirely in Amundsen's hands, as he is the only expert collaborator with you."

But Amundsen and his mates in the *Latham*, already long overdue, were never to reach King's Bay. The great Norseman had already disappeared somewhere in the mysterious Barents Sea. And never would be found alive.

Two days later Maddalena returned to the floe, accompanied by Major Penzo's hydroplane. Many packages were dropped, some in chutes. One heavy box fell a few feet from Cecioni and Nobile. Another grazed the tent where Trojani lay, sick with gastric fever. The men on the ice hugged each other and danced a grotesque jig. Then, as one hydroplane swooped low, they saw a man leaning out the window grinding a movie camera.

Instantly the men stopped dancing. They felt embarrassed.

Nobile's brother, Amadeo, had bitterly fought with Captain Romagna about the cameraman a few hours earlier. The extra passenger meant a large case of chocolate had to be left behind.

At 11:10 a.m. Maddalena, with a wave, headed for King's Bay. Penzo swooped down as if to land. The men on the floe feared he had engine trouble. But as Penzo passed overhead, he leaned out and shouted, "Au revoir!" Then he, too, flew back home.

The 14 drops, each of which had been carefully marked this time by Nobile with compass readings, contained enough provisions for 20 days and many woolen clothes which, because the temperature was now only zero, weren't needed. And there was medicine, a rifle, a carton of cigarettes and two huge pair of shoes that fit Viglieri perfectly.

During the frantic rush for packages Biagi knocked against Behounek's right arm. The scientist cried out in pain. Only then was it learned that his arm had been severely wrenched in the crash of the dirigible. Behounek explained that he hadn't wanted to bother them with his personal problems.

The men sat in the brilliant sun, smoking and reading letters and newspapers—in luxurious contentment. Only Biagi and Nobile had noticed that the *City of Milan* had cut off communications with them, as if there were now nothing at all to be worried about.

The next evening at 7:30 two Swedish seaplanes located the floe by smoke signals. Five packages of well-chosen provisions, including two bottles of whiskey were dropped on the floe in red parachutes. One bottle survived the fall.

"These Swedes are practical people!" said Nobile as he made an inventory. The men heartily agreed. People who could think of whiskey knew what it meant to be stuck on an ice floe that was liable to disintegrate at any moment.

Attached to one of the packages was a message from Tornberg, the leader of the Swedish expedition. "If you can find a landing-ground for airplanes fitted with skis," it read in the language of the North, English, "arrange the red parachutes in

T shape on the leeward side."

Such a landing field—wide, surprisingly flat, and almost 350 yards long—had already been found not far from the tent. Nobile dictated a radiogram to the Swedes in English, thanking them for their excellent supplies and telling about the landing field. But the message could not be sent: the *City of Milan* didn't answer Biagi's persistent calls.

That night the men groused, recriminated and criticized. Their main theme was that their countrymen at King's Bay didn't realize how desperate their situation was. At any moment the unusually clear weather might break and the dense summer fogs begin. And as the weather became warmer, the break-up of ice was growing more dangerous.

On June 23 Nobile sent a long message begging the *City of Milan* to speed operations. He told them that Cecioni and Behounek were both unfit for marching and should be taken off immediately before their ice floe broke up completely. He asked them to transmit his message about the landing field to the Swedes. Just at that point in the message the radio went dead. The men wondered if the Swedes, hearing nothing from them, would come back.

The next day, to keep the men's spirits up, Nobile held a conference to determine the order of leaving the floe. He told them he'd decided that Biagi should be last because he was the only one who could work the radio. The next-to-last would be Viglieri, the only man who could calculate the position of the drifting floe.

Because of his broken leg, the first to go would be Cecioni. Then Behounek and Trojani would follow. Then Nobile himself.

The men agreed. Since the departure of Zappi it had not occurred to anyone to argue with the general.

There was a light northwest breeze blowing as the men sat down to their 31st dinner. No word had been received from the *City of Milan* at the regular time, 8:55 p.m., and everyone was glum. They talked of taking to the boats when the pack broke up; they would steer through the ice for the nearest shore.

Abruptly Viglieri stopped eating. He said he thought he heard humming. Biagi heard it, too. In a moment everyone heard it. Viglieri ran outside.

"The airplanes are coming!" he shouted.

Behounek, Biagi and Trojani ran out. Cecioni and Nobile dragged themselves to the ice.

"There they are!" cried Viglieri. Soon everyone could see two tiny specks in the air.

"Make a smoke signal!" cried Nobile.

Smoke rose, dense and black. The two planes wheeled like hawks. They had seen the smoke.

"Viglieri and Biagi!" shouted Nobile. "Run to the field and lay down the landing signal. Hurry up! Run!"

The two men leaped across crevasses, scrambled up hummocks, ferried their way across wide channels using rafts of ice cakes. And now the planes were circling overhead.

"Get the sledge ready," Nobile told Cecioni.

The big man started wiring together pieces of the sledge.

"Trojani!" called Nobile impatiently, "Look in the box for wire. Quickly!"

Trojani, still weak and feverish, was lying in his sleeping bag. He grabbed several pieces of wire and staggered out onto the ice. Cecioni's clever hands worked desperately.

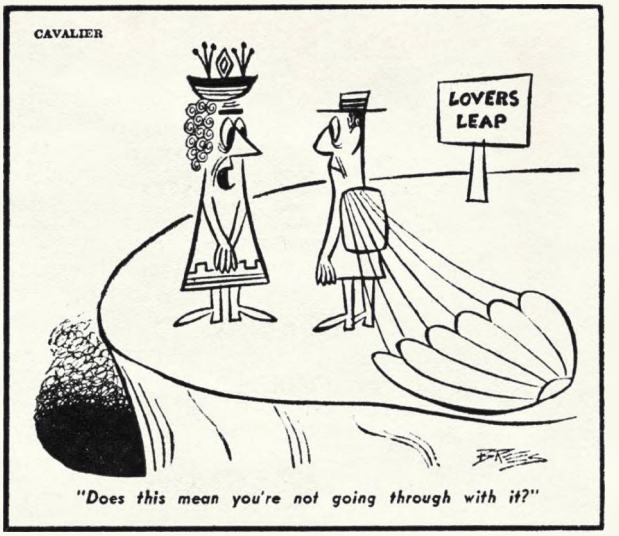
High above them circled a hydroplane. The second plane, equipped with skis, had disappeared from sight. Now it suddenly appeared, flying low. It skimmed over the ice and disappeared once again. Then it shot up in the air. The men wondered if it was having engine trouble.

When it repeated the maneuver several times, the men realized that the pilot was looking the field over. Still again the plane swooped down. This time it seemed to touch the ice, and instead of being gunned skyward again, its skis bit into the snow. Particles of ice and snow flew up as the little plane skidded across the flat field. It rocked as it hit a small hummock, then stabilized and stopped.

Nobile let out his breath and whispered, "Thank God!"

Viglieri, Biagi and Titina were racing across the ice toward the plane. They saw one man hop out and hold one wing while the pilot raced the motor and adroitly turned the plane into the wind.

Then a second man, the pilot, climbed out of the plane. The first was back in the cockpit keeping the motor running.



"Does this mean you're not going through with it?"

Viglieri reached the pilot first. He shouted in Italian. The blond, blue-eyed airman smiled and shook his head. The pilot tried a few words of Swedish. Viglieri shook his head. Biagi reached the plane. He embraced the pilot. Everyone was shouting and gesturing.

The pilot explained in English that he was a Swede, Lt. Einar Lundborg. He repeated the word "Nobile" several times. Viglieri pointed at the little tent 200 yards across the ice. The three men and the dog started on the dangerous trip, still laughing and shouting.

Nobile and Cecione waited and waited for the group to reach them. The general was not an imposing figure in his grey sweater and knickers. On one foot he wore a leather shoe. His broken leg was covered with a stocking and finsko. He was bareheaded.

Lundborg, his arm extended and a broad grin on his face, walked up to Nobile.

"Here is the general," cried Viglieri in English.

Nobile took the Swede's hand in both of his. He tried to thank the airman but the words wouldn't come out. He turned to Viglieri and Biagi, asked them to lift him up. They did. He flung his arms around Lundborg. A moment later he was laid back on the sledge.

Lundborg told them he'd be able to take all of them during the night. He reached down for Nobile. "You must come first, General."

Cecioni blanched.

"But that's impossible!" Nobile pointed to Cecioni. "Take him first. That's what I've decided."

Lundborg shook his head. "No. I must bring you first. We need your instructions to start looking for the others."

Cecioni began to cry.

"Please take him first!" begged Nobile. "Can't you see—"

Lundborg was embarrassed. He wished to oblige Nobile but he had definite orders from Tornberg, the leader of the expedition. He wished he could comfort or apologize to Cecioni, but he couldn't speak Italian. He turned back to Nobile. "No, General," he said firmly. "We'll take you to our base. It's not far from here. Then I can come back quickly for the others."

Nobile started to protest again. This time Lundborg interrupted curtly. "I can't take him now, General. Can't you see he's too heavy?" He explained that if he took the giant he'd have to leave his mechanic behind. He refused to do that. "I'll come back and get him tonight. I promise." He anxiously looked at his plane. "Besides it'd take too long to carry him to the plane. We've got to hurry. Now please come quickly."

Nobile turned in despair to the others.

"Go," said Behounek.

Viglieri agreed.

"You go first," said Biagi. "It'll set our minds at rest." He knew that the general would make things hum at King's Bay.

Then Cecioni, tears still streaming down his face, nodded. "You go," he said. "Then whatever happens there'll be somebody to look after our families."

Nobile crawled into the tent to ask Trojani.

"Of course," growled Trojani, looking at the general as if he were crazy. "It's better that way. You go."

Lundborg was getting more and more impatient. Viglieri had brought out the bottle of whiskey. Lundborg was touched but refused to accept a drink. Viglieri tried to force a pack of cigarettes on the Swede, but he shook his head violently. He again looked impatiently at his idling plane and then, with a wave of his hand, turned and started across the ice. Titina, who had been making overtures to him from the first, tagged after him, almost tripping him up. She was leaving, no matter what happened.

Nobile came out of the tent. Lundborg turned and called back, "Hurry up, General!"

Nobile turned to Behounek. "Poor Behounek," he said smiling sadly. The men embraced. Then Nobile put his arms around Cecione, promising him that he'd soon be taken off the ice. The general left his reindeer boots, his woolen cap, his general's cap, and his heavy jersey. He took Maria's picture and two radio notebooks.

Viglieri and Biagi lifted Nobile, who now weighed only 125 pounds, and carried him out onto the pack. Halfway to the plane, the Swedish mechanic, Schyberg, plodded through the snow to help them. The three men finally slid Nobile aboard. Titina was already there, completely at home.

"Move Cecioni to the field at once so he's ready to start," said Nobile. He repeated the order in which the men would leave. "You, Viglieri, take command. Goodbye until later. I'll be waiting for you." He shook Biagi and Viglieri warmly by the hand. "Whoever comes last," he said, "don't let him forget the little picture of the Madonna—goodbye!"

The engine roared and the plane moved across the snow. Slowly, with difficulty, it lifted. Nobile sat up and looked out the cabin window. Below lay the terrible pack where he'd spent 31 days. He couldn't find the tent. Schyberg pointed it out. From above it was tiny, almost invisible, a scrap of dirty material against the varigated white. No wonder it had been so hard to find. A moment later Foyn Island lay below. The golden hope of their icebound days was a hilly mass covered with snow and studded with grey rocks.

The cold air swept back. Schyberg, seeing Nobile had no hat, took off his silk scarf and wound it around the general's head like a turban. Nobile lay back, holding Titina tightly so she wouldn't bother the fliers.

When Nobile landed a half hour later at the Swedish advanced base of operations, he was sure the saga of the ice floe was about over. Not long after Nobile and Titina were disembarked, Lundborg took off for another trip to the tent. This time the Swede left his mechanic behind so he could take Cecioni.

But the ordeal on the ice would be long in ending. Lundborg's plane overturned on the snowfield almost at the feet of Cecioni, who was all prepared for the return flight. Once more there were six men stranded on the floe. And the Swedes had no other plane equipped with skis.

Tornberg wanted Nobile to wait for the *Quest* and sail back to the *City of Milan* in comfort: but the general, knowing his men would be disconsolate and embittered by the latest reverse, insisted he be flown by hydroplane immediately.

Soon the plane landed at Virgo Bay. The deck of the *City of Milan* was crowded with jubilant sailors. The crew cheered as he was carried to a cabin. Photographers and newsreel men begged the general to pose, but he waved them aside. He wanted to talk to Romagna. And he didn't want to be put on exhibit. He knew he had a long bristly, greyish beard and his face was caked with grime. In the cabin he looked at himself in a mirror for the first time in 32 days. He looked worse than he'd imagined.

Romagna's greeting was shocking. "People might criticize you for coming first," he said curtly. "It'd be well to give some explanation."

Nobile was puzzled. What explanations? Romagna said he knew nothing of Lundborg's orders to take the general off first. Then Nobile saw the newspapers. He was aghast to discover he was being pilloried for "deserting" his men. Bitter and disgusted, he wanted to go back on the ice. He became obsessed by the idea: he had to escape from people who could believe such things of him. He refused to see foreign correspondents, which served to renew their attacks on him.

In his first meeting with Romagna he complained about the poor system of radio communication. Romagna seemed amazed at his attitude.

"How was it you never heard our SOS?" asked Nobile angrily. "It was picked up by Russians in Archangel!"

Romagna shrugged his shoulders. Was it, Nobile suggested, because he was too busy sending newspaper dispatches, and as many as 400 personal radiograms a day? "Mariano, Zappi and Malmgren wouldn't have left us," accused Nobile, "if you'd been listening."

"But my dear General," said Romagna, "we were perfectly right in imagining that you couldn't transmit—and so it was a waste of time to listen for you." Then the captain blandly explained his remarkable theory that Biagi's head had been chopped off by a propellor.

Because Nobile insisted, the *City of Milan* operators now listened in regularly. The general signed radiograms to his men, knowing his name would assure them that he was watching over them. But after a few days Romagna secretly substituted his own name.

Nobile had a long talk with the Finnish flier, Sarko, urging him to fit out the *Turku* with skis. When the interview was over Romagna burst into the cabin.

"I've heard, General," he said, "that you intend to go with the Finns. I have orders from Rome to prevent you from taking part in any rescue expedition." He glared at Nobile. "If you insist, I'll put guards at the doors of your cabin!"

The general then called in Maddalena and Penzo and begged them to keep searching for the dirigible and its six lost men. A moment later Nobile learned that Maddalena had told the Finns and Swedes that the landing field at the floe was only 220 yards long and very bumpy. In desperation, Nobile again called for Sarko. He assured the Finn that the field was 350 yards long and extremely smooth. Lundborg had tipped over because his engine had failed. Sarko was convinced and left to make preparations for a landing.

The next day Nobile tried to convince Penzo to land a hydroplane on the wide channel. He also begged Romagna to shift the hydrophane base north. This would save the fliers an extra 200 miles. But the captain refused. He also refused to let the Italians use the Swedish base.

On June 29 Viglieri sent a message asking them to hurry. The landing field was still in good condition but it would probably get worse. Lundborg added a message asking permission to start marching to Grosse Island.

Nobile knew he had to say something to keep the men on the floe. He immediately wired that four planes, waiting only for good visibility, were ready to start for the "red tent."

The next day the Russian ice-cutter *Krassin* lay off Virgo Bay. Nobile asked Professor Samoilovich, leader of the expedition, if he could join the party. The Russian readily agreed. But Romagna insisted that Nobile was in poor physical condition and refused to let him leave the *City of Milan*. That same day Romagna, without telling Nobile, wired the tent that the *Krassin* was near Cape North and would probably reach them in two days.

When he learned of Romagna's wire, Nobile was furious. He knew how dangerous it was to raise the men's hopes falsely, and he wired his men the ice-breaker would not arrive for more than a week. He gave them detailed news of their families and words of advice and encouragement.

That afternoon, July 2, Riiser-Larsen landed at Virgo Bay. He had been ordered by the Norwegian government to return to the *Hobby* at King's Bay and look for Amundsen. But the Norwegian asked to see Nobile before his departure. When he came to Nobile's cabin, the general was in bed.

"How do you do, my dear Nobile?" he said. He went to the bed and flung his big arms around the Italian. Titina, who had recognized him, ran in between his legs, barking furiously. But Riiser-Larsen didn't recognize the dog—her black spots had been turned to brown by the month on the ice.

Nobile's eyes filled with tears. For a minute he couldn't say nothing more than, "Dear, dear Larsen." The others in the room, affected by the reunion, silently left the room.

Nobile had so many things to say. He wanted to thank the Norwegian for his gallant aid. He wanted to say how unhappy he was about the trouble with Amundsen. He wanted to say how much he regretted the words he'd spoken belittling the great explorer.

"We must wait in faith," said Riiser-Larsen finally.

At last Nobile was able to talk. He told the Norwegian how much food the Malmgren party had taken.

"Oh, that's all right then!" cried Riiser-Larsen with relief. "They have enough for 45 days!"

Nobile asked about Amundsen. Riiser-Larsen was confident he'd be found. The old man was too wily to be lost in the north. At that moment Lutzow Holm, who had piloted the other Norwegian rescue plane, came in. The three men chatted cordially. Then Nobile poured out a drink for each of them.

"Skoll!" said the Italian.

The Norwegians laughed and clinked glasses with him. "Skoll!" they cried.

Arguments had sprung up on the floe. When the first message came through signed, "Your Nobile," the men were deeply moved. They read them over and over again, and they knew at last that everything was being done for them. Then curt messages signed with Romagna's name were received. The men were stricken by Nobile's silence. How could he have forgotten them so soon?

By the 5th of July, the 42nd day, the quarrels were bitter. Lundborg, who was not content to sit on the floe, told them they should march. Behounek sided with the Swede. He said it was Viglieri's duty, as chief, to organize the march to land.

"Your statements are unmilitary," Viglieri said stiffly.

"It's no place for military customs!" Behounek retorted.

The Italians were furious with Lundborg for the contradictory reports he sent back on the state of the landing field. Biagi, who was now ill with fever, made boisterous sport of the Swede's changeable reports.

He would shout in English to Trojani, "Very good, very bad, very good, very bad, very good, very bad!"

Each time the Swede, who refused to endanger the lives of other Swedes, would walk off indignantly. And as soon as he did, a fresh argument would spring up among the Italians on another subject.

Late in their 42nd afternoon a plane came over the floe. It was a Swedish Hansa. Four packages, attached to red parchutes, dropped out. An hour later another Swedish plane, a three-motored Junker, roared over. It, too, dropped packages.

"Where the hell are the Italian planes?" grumbled Cecioni.

"Yes, where?" asked Viglieri.

In the meantime Lundborg, remembering his Boy Scout signals, was flashing a message to Lt. Karlsson in the Junker. "It is possible to land here," he signaled.

Karlsson leaned out the window. "Understood," was his answer.

The men drank a toast to the Swedes in the Junker. Then Lundborg saw a message writen on a rucksack. "We shall try to come with the Moth tonight. Schyberg will fly it."

The Swede, whom all had agreed should leave first, was so happy he took out his harmonica and played, "Old Man Noah."

The next morning at 2, Schyberg, accompanied by a hydroplane, returned in a ski plane. Lundborg was taken off the floe. Now they were five again.

When Lundborg and Tornberg climbed aboard the *City of Milan*, soon after the rescue, Captain Romagna met them with a gloomy face.

"Why," he asked Lundborg testily, "did you have to take Nobile off first?"

The Swede was astonished by the unfriendly greeting. "Because I believed he was the most exhausted of them all. Besides, he could give the rescue expedition invaluable information."

Romagna snorted. "Here he's only causing trouble!"

Nobile's greeting was much different. The general welcomed both Swedes warmly, thanking them for their great help. Lundborg then told of the unhappy conditions on the ice. Nobile was distressed. Although the Swedes had made up their minds to give up future rescue efforts, Nobile pleaded with them to keep up their work. Tornberg listened quietly. He thought for a minute and then said, "All right, general. We'll land again."

Nobile wrote a long letter to his men, scolding them like a father. To Cecioni he said, "You are strong in body. Let your spirit match it." He told them the Swedes were going to land as soon as the weather improved. "My dear Biagi," he concluded, "from now on you'll have a worldwide reputation. So you must get rid of the fever as soon as possible." Tornberg took the letter and promised to drop it with provisions in a few days.

That day Nobile learned the *Krassin* was blocked by ice. Romagna then came into his cabin and told him that the Admiralty would probably order Viglieri to march for the coast, leaving Cecione behind.

"You can't do that!" cried Nobile.

Romagna shrugged his shoulders as if the discussion was trivial and went out.

The day was one of great discouragement. It was now almost certain that Amundsen was lost. The Russian aviator, Babushkin, had left the *Malygin* for exploration and failed to return. The alpinist Sora, and young Van Dongen, who had both left in dog teams for Foyn Island, hadn't been heard of for days. The tragedy was spreading.

News then came through that the *Krassin* was setting up an aircraft base. Romagna began to write out an answer telling the Russians that the *Braganza* was leaving for the north and the Swedes were about to make another flight.

"No! Not like that!" cried Nobile. "The Russians might think the Swedes and the *Braganza* have great chances of success." He wrote another message. "All our hopes are centered on the *Krassin,*" it began.

The psychology worked. The Russian ice-breaker, in spite of the fact that a magnetic tempest had cut off all communication with the ice floe for several days, headed north through the thickening ice.

On July 10, the Red flier, Chuknovsky, left the fog-bound *Krassin* and headed for Charles XII Land. The fog increased, and those on the base ship built signal fires to guide him home. Then an electrifying word was flashed back to the mother ship: "Malmgren!"

Chuknovsky radioed that he saw two men standing, and a third man lying down, on a tiny floe surrounded by water. He circled the men five times as one of them made a message in rags: "No Food." Chuknovsky took the position and then started back to the *Krassin*. A few minutes later he had to make a forced landing on the ice. Without hesitation he radioed the *Krassin* to forget him and his companions and pick up the Malmgren party first.

Tension rose aboard the Russian ship. Newspapermen put up a prize of a hundred rubles for the first man who sighted the lost men. The ship's captain added another 25 rubles.

The *Krassin* plowed east in spite of a damaged helm and a broken propeller. At 7 on the morning of July 12, First Mate Brennkopf, standing on the ship's bridge, saw two men on an ice floe, about 20 feet by 45 feet. With great shouts of joy, the Russians headed toward the floe. A tall man was waving at them madly. A second man was lying on the ice.

Using ladders and planks the Russians reached the little floe. Brennkopf, seeing only two men, shouted in German, "where's Malmgren?"

The tall man—it was Zappi—pointed vaguely in the distance. He was wearing two suits of clothing and parts of a third. On his wrists were three wrist watches and in his pocket three compasses. He wore two pair of shoes. The man lying on the floe was Mariano. He was almost dead. He had no shoes, only wet stockings. The Russians carried him to the ship. Zappi climbed up the *Krassin's* rope ladder like a monkey.

The Russians, knowing they were near the "red tent," pushed on as soon as Zappi and Mariano were aboard. Mariano refused to talk but Zappi was voluble. He claimed he hadn't eaten for 13 days, although the examining doctor said it was nearer three days. With nervous gestures the Italian naval officer explained that the third man Chuknovsky had spotted from the air, was just an extra flying suit.

"But where is Malmgren?" asked the Italian newsman, Giudici.

"He's at Broch Island."

"Then we'll go and search," said the *Krassin's* captain.

"Malmgren isn't there either," said Zappi almost hysterically. "He stayed on the ice." A minute later he elaborated on this story. Waving his arms wildly, he told the newsmen that Malmgren knew he was going to die and begged them to dig a grave in the ice. With their knives the Italians dug a shallow grave. Then—Zappi went on, as the newsmen skeptically copying down the details—then Malmgren took off his clothes and lay in the grave. Quietly Malmgren stretched out his hand and bade

them adieu. He gave Zappi his compass, asking that it be turned over to his mother. They left Malmgren and continued the march. Twenty-four hours later they had travelled only 100 yards. Looking back, Zappi said, they saw Malmgren raise his head from his ice grave.

"Go, go!" he cried. "At the price of my life you'll save all!"

After finishing this story Zappi bellowed, "Let me eat!"

Later he gave newsmen an even more fantastic story—one that was to revolt the world and stir up horrifying conjectures. In a braggadocio manner he said that only a few days before, when Mariano thought he was going to die, Mariano—like Malmgren—had taken off his clothes and lay on the ice. "When I die, you can eat me," cried Mariano. "But not before."

When this story was flashed back to Spitsbergen and on to the world it grew with every retelling. The fate of Malmgren now seemed obvious to millions: he'd been eaten.

That evening a lookout on the *Krassin* spotted an overturned plane next to a tiny tent on a faroff floe. A moment later the ship's whistle was blowing furiously. Five men on the floe could be seen jumping up and down and hugging each other.

Before long the five—castaways for 49 days—were on board the *Krassin*. Cecioni, tears streaming down his face, hobbled aboard on an improvised crutch. Then came Behounek, clasping several instruments tightly. Trojani, for a change, was beaming. Viglieri was weeping with joy. And last came Biagi. He had just sent a final message, signing off with a "—greeting to our beloved General Nobile!"

The general's cap was tilted cockily on Biagi's head. "When I get on board the *City of Milan*," he said. "I'll make them all stand at attention!"

Newsmen Giudici talked with the young man as the Russians carefully packed every stick that was on the floe. "Would you come back to the Arctic again?" he asked.

"With the general, yes," said Biagi. Then he seized Giudici by the arm and looked across the ice. "Poor Pomella—" he said. Biagi kneeled, bending his head in prayer.

Nobile was overjoyed when the news reached the *City of Milan*. He wired Samoilovich on the *Krassin* suggesting that all efforts now be directed toward search of the lost dirigible. The professor wired back, "Please tell me if you are going to search for airship group with hydroplanes. In that case we will wait here by the tent."

Nobile begged Romagna to get the Italian hydrophanes ready. But the captain refused. He saw no reason to risk the planes, and advised the *Krassin* to turn back. When Samoilovich got this message he was undecided. He asked Zappi's opinion.

"I consider the airship destroyed with all aboard," Zappi said with blunt certainty.

The Russians headed for Spitsbergen. Thus the search for the six in the dirigible was abandoned forever.

When the survivors came aboard the *City of Milan*, the Italian sailors cheered and the ship's whistle blew. Cecioni hobbled up the gangway on his crutch. When he saw Nobile on deck he dropped the crutch, leaped forward, and embraced the general.

Behounek forced a smile. "Here I am back from my holiday," he said, wringing Nobile's hand.

Biagi, Viglieri and Trojani hugged the general.

With Zappi, Nobile was distant, reserved.

"Why are you so cold, General?" asked Zappi.

Nobile looked angrily at the naval officer. "You shouldn't have told the Russians the men in the dirigible were surely dead!" He refused to shake Zappi's outstretched hand. "Why did you boast about going 13 days without food?" he said. "Your party had food for 45 days."

The general didn't see Mariano until a few days later, after the naval officer's frozen foot was amputated. Nobile was touched by his 1st officer's condition, but when Mariano asked that Nobile recommend Zappi and him for a gold medal for valor, the little general sadly shook his head.

Hostility toward Nobile grew stronger and stronger. He was being attacked from all parts of the world for his "cowardliness" in leaving the ice pack before his men. For some reason he was also blamed for leaving Malmgren on the ice to die. The Communist *Youth Pravda* bitterly called him "the Fascist General who took the Cross to the Pole but deserted his comrades."

"Why did he run away?" asked the same paper. "When they left Malmgren, was he dead or alive?" Thus the ugly charge of cannibalism was laid at his door.

The American press, even the New York *Times*, joined the pack. Papers and magazines printed hundreds of faked statements and wild rumors. Behounek was falsely quoted as joining the attack on the general. (He later wrote a book defending Nobile.) When Lt. Lundborg tried to explain that he had insisted on Nobile leaving the floe first, few would listen. It wasn't a good enough story.

On the 14th of July, Captain Sora and Van Dongen were rescued by Finnish and Swedish planes. Now the only ones unaccounted for were the Amundsen party and the six on the dirigible. To this day there have been no traces of either group.

On July 22, just before the *City of Milan* left King's Bay, Penzo and Maddalena apologized to Nobile for not having done more. They said they hadn't received the proper backing from Montagna. The fliers asked Nobile to stay in King's Bay with them and help continue the search for the dirigible. Nobile sent a telegram to Rome asking permission. He was told curtly to return to Italy at once.

At Narvik the Italian survivors of the *Italia* were bundled into two special railroad cars. They were ordered to stay in the cars and speak to no one.

As the train moved across Norway, onlookers glared at them with hatred. At Vindelm, the first stop in Sweden, a little blue-eyed girl, Ebba Haggstrom, came into Nobile's car. She handed him a small bunch of flowers. The general stammered his thanks. And all through Sweden sympathetic crowds stood quietly at each station and friendly notes were slipped into Nobile's hands.

But in Germany the reception was again cold and threatening. One of the mechanics sneaked off the train and bought a German newspaper. An ugly cartoon was on the front page: it pictured cannibals in a padlocked railroad car. As their train was leaving the station at Halle a big man ran alongside, glaring at them and gnashing his teeth. It was a memory none of them ever forgot.

As they approached Italy, the men worried about the reception they would get in their own country. At the first Italian station great cheering throngs descended on the train. When they got to Rome on the evening of July 31, 200,000 swarmed over the big station. The crowd welcomed Nobile and his men with wild affection and admiration and relief.

Like a ghost of himself, Nobile walked slowly through the crowd. There was an abstracted gaze in his deep eyes. He looked years older, but for the first time in many days he felt he was surrounded by friends. His countrymen believed in him.

That was on July 31, 1928.

Less than a year later, on March 3, 1929, his own countrymen presented him with his greatest humiliation of all. An official inquiry held him completely responsible for the crash of the *Italia*. Nobile was censured for planning the expedition poorly, choosing his personnel badly, and leaving the ice floe first. The same board exonerated Zappi and Mariano from all charges.

In disgust Nobile resigned his general's commission and accepted an invitation to become head of an airship project in Russia.

The greatest saga of the north had finally come to an end. And its two leading heroes had each met a tragic fate. Three years after their spectacular conquest of the Pole in the *Norge*, Amundsen was lost somewhere in the terrifying wilderness of ice and Nobile, a disgraced man in his own land, lived in exile.

THE END

THIS COWBOY WOULDN'T STAY DEAD

Continued from page 23

meadow, barring his way. They all ran in one direction. The troughs between them were swept almost clean of snow. Visibility was better now and Pan looked down the snow ridges to see how far they went. They seemed to run on forever.

Wang Leather was impatient. He fought his head and began to dance and crowhop.

"I'll take a chance," thought Pan. "We'll hit the drifts straight on and hard. Come out on the lanes between them."

Wang Leather plunged into the first drift, floundered, got his feet under him and sprang high and hard through the far part of the drift onto the lane. Pan silently congratulated his powerful horse.

They plowed into the second drift and broke through easily.

"One more," thought Pan, "and we've got her beat."

They were plunging and rearing through the third drift. Pan felt one of the traps touch his knee. He glanced down. The saddle strings had been cut in two in the drift. The heavy traps hanging over the saddle horn were swinging loose. That was dynamite.

"Easy, Wang old boy—easy."

Pan pulled up hard on his hackamore bit but he was too late. They were out in the third lane. The big stallion swung down the opening between the drifts. The traps slapped him across the shoulder. This was all he needed.

With a wild squeal the Black downed his head and humped. Pan gripped his powerful leg muscles into the horse's body, dug his spur rowels into the stallion's belly, pulled up hard on his reins and leaned back in the saddle.

His front legs stiff as tree trunks, the great Wang hit the ground with a crash. The traps swung in a wide arc smashed Pan across the stomach so hard that blood spurted from his nose and ears. Blackness closed in on him as the stallion hit the ground again, and then once more came the traps, flying at his midsection with frightful speed. Pan could hear distant thunder and the world seemed to stand on end in a crimson haze.

Luckily he was able to get his feet clear and he went over the back of the horse. He saw the hind feet snapping through the air, the outline of the hoofs, the fine black hair of the fetlocks coming at him out of red fog and then—nothing.

Strange voices were nagging at him. They were trying to tell him something—something about waking up, about freezing to death. Fighting his way out of the nightmare, Pan opened his glazed eyes and saw the pool of blood about him. He gagged on the red froth that threatened to choke him.

He tried to raise to a sitting position, heard a strange click and the lights went out again.

Pan came to. He didn't feel the cold but the pool of blood around him had already frozen.

"Something's broke bad," he thought. "Must be my backbone. I'm crazy—crazy as a loon. Never should have packed those traps. What's going to happen now to me and those folks at the ranch?"

The wind had stopped. The sky was a pale icy blue, darkening with dusk. Pan didn't feel the gnawing cold that was creeping into his body or pain from his injuries, but he knew only too well that time was running out on him. There was nothing that he could do. He would helplessly freeze to death. Maybe there was an hour left him, maybe two hours, and then it would be all over.

He remembered only dimly the strong arms—Shag's—that lashed him down on the travois and the girl's voice telling him that everything would be all right. Then he was in bed at the ranchhouse, the strong smell of coffee, and the happy voices of children about him. He was in the living room on the wide-poled, grass-filled bunk used as a day couch, for he could see a string of windows across the front of the room. Steaming hot towels had been placed on his stomach. He was conscious of the terrible pains in his hips and the knifelike stabs running through his stomach. Betty rested her hand on his forehead.

"You've a fever, Pan," she said. "Shag's going to try to ride around the Algak mountains for help in the morning. If he can make it to Christenson's, he'll phone for a plane and a doctor."

Now began the gravest part of Pan's ordeal. His stomach was distended with blood. He blacked out every time he tried to raise to a sitting position. The pain in his back and hips was almost unbearable. He hadn't the slightest idea of the extent of his injuries, but he was sure of one thing—that he was going to die. This was a secret he never told Betty.

Because he would die anyway, Pan felt he could not let Shag make the trip. He thought with horror of the complications that Betty and the children would be faced with if he died in the house while Shag was away. No matter how fast Shag rode, it would be several days before either Shag, a plane, or anyone else would be able to break back through to the ranch—and then, of course, there was only a slim chance of Shag making it through to the Christensons. It would be better to have Shag here when he died. So he forbade Shag to go, saying that he felt much better.

During the days that followed Pan turned on his vast will power to convince Betty and Shag that he was healing. But the pains never ceased. For Pan it was a long night without end.

On the tenth day he was taken by the worst spasm yet. He thought of the bottle of brandy that was cached in the house and asked Betty to bring it. He hadn't dared to touch it before, just in case it weakened his will and he might admit that he knew he would die. But he could take the pain no longer.

Betty found the bottle. She propped Pan's back up a little with a hay filled pillow and deposited the bottle, a glass and a pitcher of water beside the bed.

"I'll drink her down straight," Pan said.

Betty walked to the radio and turned it on. Pan took a long gulp from the bottle, gagged for a moment, then reached for the water glass.

Betty stood by the bed watching him. Pan took another long swig from the bottle. This time he didn't gag. Betty protested, but he raised the bottle again. His pain was leaving him. He felt a warm glow creeping over his mind and his body.

For the first time since they'd brought him back to the cabin, Pan was partially freed of pain. It was then that the truth suddenly flashed upon him like northern lights bursting across the sky. He might live. He might not die. He had already lived ten days.

"Maybe we ought to get a doctor," he said.

Shag pushed through the door. He looked in surprise at the half-empty brandy bottle.

"I think we can outsmart him."

"Come over here, Shag," said Pan. "How's the weather outside?"

"Mild, zero to ten above," replied Shag.

"The snow?" asked Pan.

"Settled a lot in the last few days," Shag answered.

"Okay, boy, do you figure you can get around the mountains to Anahim Lake?"

Shag didn't hesitate.

"On Wang Leather I can," he said, a determined gleam in his eyes. Pan could see the kid's tough, close-knit body coming taut. "And I can ride him too. I've ridden around the corral twice and he never bucked with me. "Maybe it'll take 35 hours riding—maybe 40—but Wang Leather can make it."

Pan knew Shag had been raised around horses and though he was only 15 the kid was a bronc rider of no mean ability. He also felt sure that once the stallion got clear of the first drifts on the big opening, the animal would settle down to a hard, ground gaining walk.

"Go to it, boy," Pan said quietly. "Get Andy Christenson to stay with the phone until he lines up a plane. Not a plane and a doctor, just a plane. Figure out how long it will take you to ride back here from Anahim, add one day to that, and tell the outfit we'll have a big green tree smoke smudge going out on the lake three miles from here.

"If Andy can't line up a plane up north, tell him to phone Russ Baker in Vancouver and tell him what's happened. Russ is head of Central Airways now. Even if he has to fly in himself, he'll do it."

Then with a long sigh Pan slumped back on the bunk and dropped off into the deep sleep that he needed so badly.

Shag's ride that February in 1948 was a phenomenal feat of endurance, grit and horsemanship. The narrow Indian trail was a hard one to follow. Wide detours had to be made around impassable drifts. Snow was swept off frozen lakes leaving treacherous glare ice.

He broke through into the dark pine forests of the Algak foothills long after nightfall. Only a top woodsman could have followed the snow drifted trail to this point. Now ahead of him reached the long winter's night and the black jungles and frozen muskegs of Ulgatcho Indian land. It would take even greater woodsmanship and luck to keep him on the beam through the long hours to daylight.

Occasionally he pulled Wang Leather to a stop to let him get his wind. In the deathlike silence then the horse's loud breathing, the creak of saddle leather, the hoofs crunching through the snow were the only sounds to break the gripping silence of the northern night. These—and the cries of wolves.

Branches and snags reached out at Shag from the blackness, pounded and crashed against his moosehide jacket and cowhide chaps. His face was scratched and smashed and bleeding.

Shag looked over his shoulder often at the North Star. In case he swung off the trail, he knew he could still keep his direction of a few degrees west of due south. When dawn broke, he would be able to cross cut back to the trail.

It finally came—a dull, lifeless light that crept steadily into the forests. Dark objects began to take on distinct shape and form. Wang Leather was ploughing through deep snow along the edge of a vast opening that stretched off into the west and the grey gloom.

Shag gasped at what he saw, unbelievingly. He could not believe he'd come so far. He was under the Algaks. Towering thousands of feet above him, the colossal battlements rose into the pale blue sky.

He had made a record ride under the worst conditions, and by far the toughest part of the long trail now lay behind him. He was over 45 miles from the Home Ranch. He still had nearly 30 to go, but from now on the trail would be well-used and hard packed for fast travelling.

At exactly 1 P.M. Wang Leather walked stiff-leggedly into the Christenson yard. He was white with lather. He was legweary and scratched, but by the proud way he held his head and his unfaltering stride, it was plain that the ride had not broken his wind or his spirit.

At the time of Pan's accident, Andy Christenson had one of the few connections on the bush telephone line running between Williams Lake in the interior of British Columbia to the fishing and logging village of Bella Coola on the coast. This telephone at Christenson's ranch had been directly responsible for saving a number of lives during the preceding years.

On Shag's arrival, the Christenson Ranch burst into action as it had so often before. Through the long, complicated relay of telephones' station to station from the far outpost of Anahim, through Kleena Kleene, Alexis Creek, Williams Lake, Ashcroft to Russ Baker in Vancouver, and then far north again to Prince George, it was decided that if flying weather allowed, a plane would land on the lake, three miles from the Home ranchhouse, in three days.

The first plane attempt to pick up Pan didn't turn out so well. Something went wrong with the motor and the pilot crashlanded a few miles beyond Quesnel. The pilot wasn't hurt but another three days passed before Russ Baker could line up a second rescue flight.

On February 13, 16 days after Pan had his crack-up with Wang Leather. Pan was lifted into the plane on the snowbound lake and soon stretchered into a hospital at Quesnel.

Pan Phillips was treated by Dr. Gerald Baker, one of Canada's leading surgeons and a man who had taken many fabulous trips into wilds to save distant trappers and ranchers.

Dr. Baker didn't go in for preliminaries.

"The first thing we're going to do with you," he said to Pan, "is to X-ray you from your toenails to the top of that thick skull of yours. When we see the X-rays, then we'll know where you stand."

"Whatever you say, Doc," Pan said, "but I'm plumb broke right now. Didn't plan on gettin' crippled this time of year with no dinero. But I've got horses and beef 200 miles through the snowdrifts from here."

Dr. Baker snorted like an old stud horse.

"Just forget about that end of it. I won't go broke for awhile yet, Pan."

The X-rays of Pan's hips showed that his pelvis had a 1¼-inch split. While this looked extremely formidable, the doctor explained that after six to nine months in the Vancouver General Hospital with the best bone specialists in the country in attendance, Pan would be able to walk again, carry on with his usual life with the possible exception of riding. He reassured the Top Hand that if all went well, it was even possible that some day, when the muscles that had been torn clean away from his hips had mended, and the pelvis split had closed, that he would be able to ride a gentle horse.

The doctor and a small crew went to work on the traction outfit, rigging up pulleys, stretchers, ropes and weights. Pan's legs were stretched out in strange positions, weighted down at different joints and the various gadgets adjusted according to business-like blueprint. The rigging eased Pan's pain. Within a week he was able to rise to a sitting position without passing out. Dr. Baker was delighted.

Pan studied the mechanism and the theory of this system of pulleys, springs and weights. At the end of his second week in the Quesnel hospital—a few days before he was to be flown to Vancouver for his final long treatment—Pan dropped a bombshell in Dr. Baker's lap.

The doctor had made several adjustments on the rigging and while he did so he noticed that Pan was extremely serious. The Top Hand didn't react in his characteristic manner to the Doc's early morning jokes and commentary.

"I've done some thinking, Doc," Pan said when the doctor had finished. "I've made up my mind to one thing. I'm gonna get Tom Corless to fly me back to the Home Ranch just as soon as you can rig me up with a set of harness like this and a blueprint of how to tangle me up in it."

"Whoa there," broke in Dr. Baker. "Out there—200 miles from the nearest hospital—you wouldn't have a chance if anything went wrong with you or the traction set-up. Adjustments will be needed continually as your pelvis mends, and it will take a physician who knows his stuff to do it right. There's a good chance the bone specialists will have to perform an operation. Your hip muscles are pulled clean away from the bone. They are going to take some working over. If you go back there into the jungles at this stage in the game you're ruining your life. You'll never ride again. You'll be lucky if you can walk."

But Pan had made up his mind. He looked at Dr. Baker.

"I don't know how to thank you, Doc, for all you've done for me and all you are still trying to do, but Betty and the kids are back there on the Blackwater and there's a herd of top whiteface cows, a hundred and thirty or forty head of horses, sixty

of 'em brood mares in foal. No tellin' what could go wrong. The outfit needs me Doc, so I'm flyin' back there right away. There's no use to argue. Rig me up a blueprint of how I've got to be stretched out. We'll work from there."

Pan wrote me a letter the day before he was flown back to the Home Ranch, and worried, I called Dr. Baker at Quesnel. He gave me a brief account of Pan's injuries, and I can still remember the last words he barked at me in his very personal and yet gruff voice over the phone.

"You never can tell about Pan. Miracles have happened you know. That tough, bull headed son-of-a-gun may fool us all. Someday we may see Panhandle ridin' high on the back of a cayuse—but I wouldn't bet on it."

When I next heard about Pan it was along toward the middle of May. The moccasin telegraph news that reached me first hand was not good.

The country around the Home Ranch was submerged under a vast blanket of mud and slush. The grass was watery, the range very poor. Some of Pan's cattle had died, and he had given quite a bunch in lieu of wages to Shag Thompson and his brother who had come to help out. Pan was badly in need of cash to pay his food, equipment and medical bills. He had expected to sell some of his horses but even here fate had gone against him. Despite Pan's directions and advice, the Thompsons had been unable to plunge the band through the snowdrifts to the big slough grass horse range, 15 miles north of the ranch. Only the strongest horses had survived the frightful winter. This had been a frightful blow to Pan. Lying there in his traction harness, he was unable to raise a hand to help them.

Pan's physical condition had improved remarkably during the winter, but early one morning Shag reported to the house that he and his brother were unable to help Pan's pet thoroughbred mare give birth to her first colt.

"Turn me out of this bunch of snares," Pan commanded the boys, "and move fast. Get a pail of hot water and the Lysol. We ain't gonna lose that mare and colt."

The boys got Pan loose from his traction contraption and carried him across the opening to the feedyard. One of them ran back for the kettle of hot water and the disinfectant.

Pan crawled painfully up to the fast-weakening mare. The Top Hand disinfected his hands in a mild Lysol solution. With Shag holding the horse's head down, Pan made an exploratory examination and found that the foal's head was twisted back and one front foot was bent under.

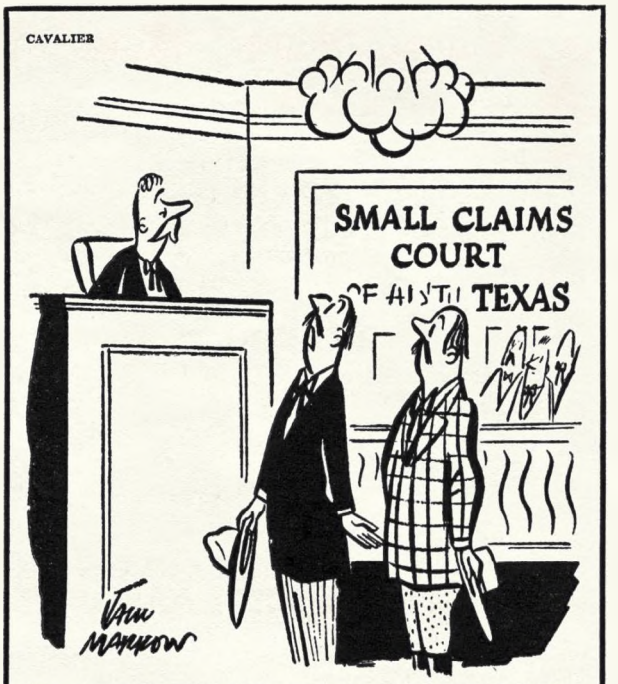
Pan had had much experience delivering calves and colts. It takes a lot of strength and know-how to readjust the unborn animal into the proper position for delivery. Pan was successful in delivering the colt but the strain was too much for him and he keeled over on his face when it was all over and the mare and colt were safe.

The Top Hand paid a terrible price for the strain he had inflicted on his back and leg muscles. His hips ached day and night. He slept fitfully and never seemed to be rested. He looked like a living skeleton. Betty was worried and distraught.

To top it all off, food supplies were low. The ranch had been on meagre rations for some time, and the day arrived when Pan knew a trip to Quesnel couldn't be delayed. The Thompson boys had to leave for new jobs on the 15th of June, and Pan decided to start the same day on the long unused wagon trail to Quesnel. Betty would drive the team with Pan and Diana in the wagon, and Willie would ride behind on a saddle horse. If there were no breakdowns the family would make it to Quesnel in slightly less than two weeks' time. If they found fallen timber blocking the roads, Betty would have to ax and saw it out of the way.

At that point, the rains started, turning the wagon trail into an impassable bog, and the trip had to be delayed. Bush Pilot Tom Corless brought in food by plane. Corless was back at Quesnel by nightfall the following day with the news that Pan and his family were coming through the constant series of emergencies in good shape. The Thompson boys had made it to Anahim in June, and Shag had returned with a packhorse load of flour, rice, macaroni and coffee, enough to tide the family through the long wet period.

During the following weeks, Betty shot and butchered a moose, and herded the cattle and horses onto the summer range. Pan had made himself a crude set of crutches. The Top Hand was still using the traction a good deal of the time, and had become



"Your Honor, this varmint owes me one hundred thousand dollars."

a fairly good baby-sitter.

Finally, in August, the Phillipses got started on their long-postponed expedition to Quesnel. They were slated to arrive in town between the first and fifth of September.

I waited at the Fraser River bridge at Quesnel for the wagon to arrive on that September day in 1948. I watched the fancy new cars and trailers rolling along the highway, looked at the neat modern houses and flower gardens across the street, the well-fed townspeople scurrying along to the restaurants for their mid-morning coffee period to split up their well-ordered, eight hour day, and I was seized by the contrast between the lives of the average modern day, security-minded, luxury-soaked citizens of our country—and those other folks who were still slugging it out on our last frontier.

Particularly I thought of Betty. How could the average woman of our day and age even conceive of her horrifying nine-month ordeal—the never-ending, day by day, month by month emergency, not knowing whether her husband would live or die, whether she and her children would survive themselves.

I thought of Betty's terrifying loneliness. How she had slithered on her hands and knees through the dismal swamp birch to bring down an ugly-headed monster of a moose, of her quartering it, hoisting and lashing down the bloody meat onto the backs of unwilling packhorses. How she had driven the herd of cattle out of the mud and water many miles up into the awesome, Grizzly-infested Itcha Mountains to put them on the dry summer range.

I thought of Betty catching, then haltering the horses, throwing the heavy harnesses on the big team, the back-breaking 250 miles she had had to drive the wagon through the swamps and mountains of the wild uninhabited interior of British Columbia, axing and sawing out great criss-crossed piles of down timber that blocked the trail, to get her crippled husband and children out to civilization.

She couldn't do it—no woman, and few men, could—and yet, down the asphalt road, past the trim houses, a wagon was coming.

Betty was smiling as the wagon clattered over the bridge and drew up alongside of us.

"Where's Pan?" everybody yelled.

"He's hiding," Betty called over her shoulder. "See you all later."

Art Lavington and I jumped on the back of the wagon box and pulled ourselves up and over the high end gate. And there

he was—that tough old Pan—laying there on his straw tick, looking ashamed.

"Don't let on you see me, boys. Let's get through this mob."

Dr. Baker was amazed by Pan's great improvement, but he still thought that Pan should go to Vancouver for treatment. Although the new X-rays showed that the split in the Top Hand's pelvis had pulled together somewhat, and his hip muscles were mending to the bone, still Pan was running the risk of being permanently crippled.

We all told Pan that it was sheer madness to return to the Home Ranch—that he could never make it physically or financially by returning. We urged him to close down his isolated layout, sell what cattle and horses he had left, and move into Quesnel, or up with my wife Gloria and me into the Nechako Valley. How could a crippled rancher who couldn't afford even one hired hand survive in the wilderness.

But Pan's mind had not been idle those long months he had been on his back. He had made his plans, and now he would carry them out. As usual, nothing could swerve him from his decision, and in character, he made light of what lay before them.

"Nothin' to it, boys," Pan drawled to a bunch of us who had gathered in his ground floor, two room suite at the Traveller's Rest. "Everything's going to be easy. All we got to do is get back there to those swamps and get to work."

The Top Hand grinned. Betty shook her head at him.

"What a man," she jibed.

"Yes," I barked at Pan. "All you got to do is get Betty and the kids back there to do the work while you lie back in an easy chair and give directions. Just what in the name of Saint Peter can they do now to pull you all out of the soup more than they already have?"

"You'll be surprised, friend," grinned Pan.

And so Pan and Betty and Willie and Diana, the big team, Doc, the buckskin pony and the snooty little collie dog rolled out of town a few days later.

A year passed before the Phillipses came back to town. I saw them on the night of the Cattleman's hoe-down.

Betty was very popular at the big dance in the smart new dress Pan had presented to her. In a far corner of the big lumber barn a bar had been set up and drinks were being passed out freely. Pan stood there, surrounded by a group of his cronies. He leaned on his crutches, sucking and biting away at a cigar butt while he watched the dancers.

Suddenly, to everyone's astonishment, Pan hobbled to the door, snorted loudly, and with a mighty heave, threw his crutches out into the dark.

"Those toggles have had it," he yelled. He turned around, stalked out onto the floor, tapped Betty's partner on the shoulder and danced off with her.

I will add here that once again Pan made good on one of his outlandish brags. He never used the crutches again.

The Phillips family made a big comeback. Pan always went by the principle of doing your best with what you've got. Hit at your problems from every angle. Try anything if it makes sense—you're never licked unless you think you are.

He had opened up an Indian store on the Home Ranch. He turned the old bunkhouse into an all-Indian home quarters where Indians could stay overnight. To get clients, he had made an arrangement with the Blackwater Indian Alexis family who were anxious to "get to be like white man." They thought a lot of Pan and it had worked remarkably well.

Peter Alexis and his hunchback brother George had good contacts with the great tribe of Indian trappers, the Ulgatchos, who lived west of the Home Ranch toward the coast. Most of these bush Indians could speak no English. Their fur catches were fabulous. Traders had gone all-out for years to establish themselves with these super-trappers. A season's catch sometimes amounted to thousands of dollars for a single family. Now they were all trading with Pan.

Pan traded food, drygoods and various other articles to the Indians for beaver, mink, muskrats, marten and fisher. The Alexis boys handled his freight.

The Top Hand did so well with his store and his canny trading that he was able to put Shag back on the payroll and clean up his debts. His herds of cattle and horses had been steadily increasing.

The following year Pan started riding a side saddle, and in the fall of 1951 he discarded it for his old stock saddle.

I don't think anyone was more surprised than I was to see in the Vancouver papers in October, 1952, that Panhandle Phillips had taken over the big Anahim Lake contract for driving the ranchers' beef to Quesnel.

The reporters who wrote up the story had no idea of the dramatic implication behind the news that a rancher named Panhandle Phillips and his crew were driving a large trail herd 250 miles from Anahim to the town of Quesnel on the longest and toughest beef drive on the North American continent. •

THE MILLIONAIRE GENIUS OF SWINDLE

Continued from page 35

banks and investment houses.

Thompson, a gentleman of culture and native of Park Avenue, was completely taken in by Musica's genius for business. Trusting his intuition, he never bothered to check into the man's background. Neither did the other tycoons who were throwing around millions.

And so there was a very formal and proper meeting in November, 1926, in the big conference room of the National City Bank on Wall Street. There F. Donald Coster handed a certified check for 1 million dollars to the owners of the old, established drug house of McKesson & Robbins, and walked out of the room as president of the company.

Though McKesson & Robbins was a famous name in the drug and pharmaceutical field, the firm had been losing money for the past five years. What Coster bought was mostly the value of the trade mark. Then he demonstrated his ability as a businessman once again. In just two years, Coster reversed the trend at McKesson & Robbins and turned in a profit of 2 million dollars.

This made Coster a fair-haired boy on Wall Street. They swore by everything the dynamic, brilliant little man had to say. When he told Thompson that he wanted 20 million to purchase the business of some 65 independent drug distributors around the country—to build up the largest drug sales organization—the money was promptly forthcoming. He even persuaded Thompson to join the firm of McKesson & Robbins as treasurer. Such was Coster's business ability that he could drum up another 16 million in 1930, right after the crash, at a time when other company presidents were jumping to their deaths from penthouse terraces.

Just in case his past might catch up with him, Coster changed his outward appearance and his mode of living. He let his hair go gray, wore horn-rimmed spectacles, conservative "pepper-and-salt" business suits, and discarded the "elevator" shoes so that he now appeared two inches shorter. The former Broadway playboy studiously avoided public appearances, he even refused to have lunch with business associates in any of the restaurants where someone might have recognized him. Instead, he satisfied his inborn vanity by crashing "society," where he wasn't likely to meet any gangsters and ex-convicts.

In 1926, around the time when he became president of McKesson & Robbins, Coster married a divorcee, Carol Hubbard. Her ex-husband had worked with Coster as an investigator; her brothers John and Leonard Jenkins were truck drivers in the bootlegging end of his business. Yet although Carol wasn't exactly a member of high society, she seemed to fit in beautifully in their 18-room mansion in snooty Fairfield, Connecticut. There were half a dozen servants in the household; there was a Packard and a Lincoln in the garage; and in the rear there was a kennel with two dozen pedigreed chows and a Saint Bernard. In the harbor was Musica's $135,000 yacht.

Coster bought McKesson & Robbins for 1 million. By 1937 the company had $174 million sales and showed net earning of more than $4 million. Its assets were listed at $87 million—as against practically nothing when Coster got into the picture. Everybody, down to the last Assistant District Attorney, agreed that Coster did a terrific job of developing the company and deserved full credit for building it up into one of the giants

of American business. If it hadn't been for that irresistible criminal drive in his character, he could have made a fortune for himself the legitimate way, and the world at large would never have discovered his true identity.

But Coster was not satisfied with a salary which in later years rose to $130,000. It wasn't enough for him that he got stock dividends and bonuses on which he could make huge profits because he had advance knowledge of company moves. He wanted much bigger money and he wanted it fast. Also, it now seems that he *had to* have more money, for he was being blackmailed by an increasing number of former underworld associates who discovered the F. Donald Coster was in reality Phillip Musica. And they knew that he would pay plenty for their silence.

The approach Coster figured out for his swindles was characteristically ingenious. As company president he had reserved as his private province all dealings in crude drugs. "Doctor" Coster was supposed to be a world authority on such weird items as Algerian oil of geranium, Peru balsam, East Indian sandalwood oil, Chilean iodine and hundreds of other ingredients that go into the making of medicines and cosmetics. None of the drugs he bought were ever delivered to McKesson & Robbins for its own use. They were bought and sold on a global basis purely for speculation. And because the department consistently turned in huge profits, everybody was happy, no questions asked.

Coster ran his department with an amazingly low overhead. He had a purchasing agent by the name of Robert Dietrich in the Bridgeport office of McKesson & Robbins, where he, too made his headquarters. And George Dietrich, Robert's brother, an assistant treasurer in Julian Thompson's office, took care of all payments relating to the crude drug department. Everybody knew that the two Dietrichs were "Coster's men," but nobody suspected that they were more than that—his brothers.

Instead of hiring people and opening branches abroad, Coster used the services of W. W. Smith & Co., commission merchants of Liverpool, Toronto and Brooklyn; and the banking services of Manning & Co., of Montreal. Both firms got $20,000 flat retainers a year, plus commissions on every purchase and sale, amounting to almost $200,000 annually. The drugs were stored in five Canadian warehouses, but often were sold in transit, before they ever reached Canada. At times it was quite difficult to say just where they were.

Everything went along fine until 1938, when the directors of McKesson & Robbins decided to reduce inventories and arrange some quick sales in order to get cash. Coster was absent from that meeting. When Thompson suggested that the crude drug department should reduce its huge inventory by at least $1 million, Coster seemed taken aback, but agreed to do so. However, instead of following through on his promise, in the next few months he added about $1 million to his crude drug holdings.

Thompson knew that Coster was not the forgetful type, particularly when it came to a million dollars, and his suspicion was aroused. Why, for instance, were the commissions and expenses of W. W. Smith & Co. and Manning & Co. always paid in cash from New York, instead of being deducted on the spot from profits? Why was none of the tremendous inventory insured? Why did none of the Canadians ever visit the New York office?

Once he got going, Thompson asked a lot of other questions, and suddenly he realized that he knew next to nothing about Coster, and had taken Coster's word for a lot of things. Then he remembered that somewhere in the files was a Dun & Bradstreet credit report on W. W. Smith & Co. He had it brought out, but it painted that company as an entirely reliable outfit.

Thompson almost gave up his detective work right there, but then he decided to visit the W. W. Smith & Co. branch offices in Brooklyn. He was pleased to see that they were located in the impressive office building at 1 Hanson Place, but the branch turned out to be a one-room affair, which also housed the New York office of Manning & Co. It certainly did not look like an important branch office of two substantial corporations. Then the manager, Arthur Vernard, walked in and disturbed Thompson even further. First, he looked so much like F. Donald Coster that he could have been his brother (which is just who he was); and second, he gave evasive answers to all questions, particularly to where in Canada the company's warehouses were located.

"I should take off what mask, silly boy?"

Back at the office, Thompson looked at a few cancelled checks made out to the two companies, found out that they had their accounts at the Chase Bank in Brooklyn. Then through some good friends at the bank he was informed that apparently the only money that ever went through those accounts were the commissions paid by McKesson & Robbins—instead of the scores of millions from the sale and purchase of crude drugs.

Next, Thompson took the Dun & Bradstreet report to that company's main office and asked them to re-check it—and unheard-of demand towards the big commercial rating outfit that can hardly afford to be wrong. But back came the information from Toronto and Montreal that W. W. Smith & Co. and Manning & Co. were just mailing addresses, each manned by one secretary, and that there simply were no drug warehouses belonging to them. Then it turned out that the glowing report on the two firms was forged on Dun & Bradstreet stationery. Suddenly, Thompson remembered that it was Coster who originally gave him that report.

He also remembered that the new issue of *Who's Who* carried, for the first time, a biography of Coster. He read the listing again, then got off a letter to Heidelberg, inquiring about Coster's Ph.D. and M.D. degrees. And he asked a lawyer friend to check Coster's claim that he had practiced medicine in New York.

But Thompson lost his patience before the answers were in. He felt he had enough evidence to confront Coster and demand an explanation. He still hoped it would be acceptable. So, although it was a Sunday morning, he went out to Fairfield and appeared, unannounced, at the Coster mansion.

"Yes, I am surprised to see you here, Julian," said Coster in a far-from-friendly tone. "You could at least have phoned me that you were coming. Now what is this all about?"

When he realized the purpose of the visit, Coster suddenly changed. He smiled as Thompson was unfolding his facts, and when his visitor finished, he laughed out loudly.

"Of course, you must be wondering what all this means," Coster said. "On the other hand you know that *it was I* who built McKesson & Robbins. As long as I am around, there's nothing to worry about. The things you point to are part of a

plan I developed for a huge coup. There's a lot of money in it for all of us. You must trust me for another couple of days, and I'll give you a full explanation in writing."

Perhaps Thompson was too soft to put down his foot right then and there. Perhaps he hoped against hope that Coster really had an acceptable explanation. In any event, he vainly waited for almost a week, during which time Coster stayed away from the office, claiming to have the flu.

Then Thompson made a second unannounced visit to Fairfield. He confronted Coster with the fact that he had never practiced medicine; also with indignant letters from a number of firms who according to the books owed the crude drug department money, but who vehemently denied ever having done business with McKesson & Robbins.

"I can only repeat that you will have to wait," snarled Coster. "If you press me any further, I'll have to ask a receivership for the firm, and you know what that would do to your beloved stockholders!"

That same night, as Thompson arrived at home, he got the news that the Federal Court in Hartford had placed McKesson & Robbins in receivership, based on a petition from an unnamed stockholder and on information that "in excess of $10 million" of the firm's assets were missing. It later turned out that Coster was that stockholder. His petition was already in the court's hands when he spoke with Thompson. He must have hoped for leniency from the court, perhaps he even thought he might be able to explain away the shortages.

The news made front pages the following morning, December 15, 1938. Trading in McKesson & Robbins stock was suspended. Federal warrants were issued for the arrest of Coster, Vernard, and Robert and George Dietrich, were not yet identified as Coster's brothers. Because of Coster's illness—and because they were dealing with a bigshot who might be able to clear himself—the authorities were accommodating. A U.S. commissioner and an assistant district attorney went out to Fairfield to arraign Coster, instead of having him hauled in. Everything went smoothly, until a marshal ordered Coster's fingerprinting. Coster tried to balk, but he couldn't get around having his prints taken.

On that same day, pictures of Coster appeared in all papers and many people recognized him as Phillip Musica. The D. A. ordered Musica's fingerprints dug out from the files. But the prints were missing, and so were the files on Musica's criminal activity.

Then Inspector Donovan remembered that duplicate fingerprints of a number of criminals were stored in a precinct house. After hours of searching, his men came up with a perfect set of Musica's prints. They matched F. Donald Coster's.

At this, on December 16, the court raised Coster's bail from $5,000 to $100,000, and a new delegation of officials got under way to Fairfield to arraign Coster once more, and to see whether he could post bail.

Coster was listening to a noon broadcast, when he heard that they discovered his real identity and that they were coming for him. Immediately he knew that the jig was up, and that his hopes for leniency were in vain.

After the excitement of the preceding day, Mrs. Coster was still asleep at noon. Coster picked up in his bedroom his favorite, framed motto and quietly placed it on Mrs. Coster's dresser. It was a quote from Harriet Beecher Stowe: "When you get into a tight place and everything goes against you till it seems as if you just couldn't hold on a minute longer—never give up then, for that is just the place and the time when the tide will turn."

Such soothing words had lost all practical value for Coster. He figured they still might help his wife.

"Get me a brandy," he told his brother-in-law who was hovering around him. When the brother-in-law went downstairs, Coster took a .38 revolver from his desk.

He was looking from the window of his second-floor study when two black cars turned into the driveway. A single shot rang out, just as the deputy marshals and assorted officials filed into the house. They rushed upstairs, broke down the bathroom door and found Phillip Musica dead.

That same night, a radio comic joked, "He just couldn't face the musica!"

It took 300 skilled accountants 160,000 man-hours to trace Musica's involved transactions. Postal Inspectors scrutinized one million pieces of correspondence. Their finding was that Musica and his brothers Arthur, George and Robert had pocketed some $3.5 million over and above salaries and bonuses.

But when Musica died, all he owned, in addition to his house in Fairfield and his yacht, were about $1,500. Where did the millions go? It is known that Musica lost about 1 million in the crash of 1929. Most of the rest presumably went to blackmailers.

As Musica might have said, had he survived: "Crime doesn't pay . . . enough!" •

THE KING WHO ATE A REGIMENT

Continued from page 16

"We shall celebrate our great victory with an enormous feast."

It was a feast day long remembered, even by the most experienced Mbau-gourmets. The village drums tapped out a melodious religious rhythm—pat, pat, pat, pat—while half the population watched the corpses of the Viti Levu warriors being roasted in long stone ovens by Thakombau's special chefs. When the stones were hot for five minutes, the night air was suddenly pierced with a wild shriek—coming from inside one of the ovens.

One of the "corpses" had only been stunned by Thakombau's war club, and when the heat brought him to consciousness, he went insane at his predicament. The Mbau villagers howled with glee as their screaming meal was roasted alive, clapping their hands and thighs in time to the tribal drums.

The bodies were butchered after roasting. The tongue and hearts, the choicest portions according to Fijian experts, were given to the highest ranking chieftains under Thakombau. Children got the heads and hands to gnaw on. Thakombau, his thirty-five wives and court, feasted on the tenderest portions of the baked women and children. Women were considered better eating than men, and children a particular delicacy.

Special pots and dishes, taboo for any other purpose, were pulled out to serve the human meat. According to Fijians, "long pig" had a phosphorescence that glowed on a diner's hands after dark. As a precaution, the meat was usually eaten with a five-pronged fork.

By late the next afternoon, baked human rump was on sale in the public marketplace alongside yams. Long 2 foot thigh bones with scraps of human flesh and muscle still on it—all that was left of chewed carcasses—were strung from trees outside the huts of prominent tribesmen. Poor mothers not invited to the feast stopped and begged for a piece of flesh to rub against their baby's lips. It was, the old folks said, a guarantee of eternal strength. A person who ate human meat added to the power of their spirit.

The feast had the flavor of a thanksgiving holiday. The Mbau villagers were lucky if they could chew a roasted leg of "long pig" a half dozen times a year. But for Thakombau, it was a staple of his diet. He had already eaten 400 human beings including a few whites he cagily did not discuss with visiting American and British gunboats. And his appetite, if anything, was growing.

After he had eaten with his wives, Thakombau chuckled heartily: "The best part of the meal is still to come." Then abruptly, he snapped a command at one of the twenty armed savages at his side, a perennial bodyguard that accompanied him wherever he went. "Bring in the two captives," Thakombau thundered.

The Viti Levu captives were thrown at the cannibal's feet. Thakombau rose from his pillow, stretching to his full height. The savage giant looked every inch the "King of the Fijis." His body was beautifully proportioned, his muscles shining through the oil that covered his sable skin. His face, strangely enough, had a European cast, and he appeared not only intelligent, but disarmingly like an agreeable fellow.

His only clothes were a scanty loin cloth and a string of blue beads circling his arms and neck. The centerpiece of his necklace was a bright boar's tooth. His dark frizzy hair was fashionably singed and covered with gauze, and a strong black

beard jutted eight inches below his chin. His flat waist belied all the human meat he had poured into his belly in twenty-six rollicking years.

Thakombau looked contemptuously at his captives and ordered them to cut firewood and light a fire in the oven to roast themselves. "Go wash yourselves," he demanded when they finished. "Make yourselves clean enough for my stomach. Then each of you make a cup of banana leaves."

When the prisoners obeyed his wishes, Thakombau took a sharp knife and cut a large opening in each of the captives' arms, draining their blood from the severed vein into the banana leaf cups. He drank several cups full, while his victims shuddered from shock and moaned chants to their pagan gods.

At a hand signal from Thakombau, two warriors stuck fishhooks into the captives' tongues. One man pulled the tongues out to their limit while another slashed them off at the base with a razor-like knife. The meat was brought to Thakombau, who ate the bloody delicacy raw in front of his mute prisoners. While he munched, Thakombau's butchers cut off first the prisoners' arms, then their legs, and roasted the parts. Thakombau pulled one of the half-cooked parts off the fire and walking over to one of the dismembered torsos writhing helplessly on the ground, smilingly offered him his own arm to eat. The prisoners were later disembowled and killed.

This was Thakombau, undoubtedly the greatest cannibal that ever lived. He was cunning, ruthless, without a trace of sentiment, and he had a fantastic appetite for human meat. He virtually ruled the Fiji Islands for twenty years, fighting doggedly against rebellious chieftains, and intervention by American and British missionaries. He battled and connived, more it was said, for the feel of beloved juicy "long pig" on his lips than the sheer majesty of being King of Fijis. In his lifetime he ate more than 1000 of his fellow human beings.

Thakombau was born in 1817 with the given name, Seru. From the moment of birth his father, Tanoa, began to school him for the role of a great chief—to be more ferocious than any of his subjects. The boy attended one of the strangest schools in the history of civilization. His father's tutors labored day and night to teach him how to kill, to commit treachery, and to master the noble art of cannibalism.

According to Fijian tradition, the baby prince stayed with his mother only one night after he was born. Then for ten days he was held and nursed by various women in the court. After nightfall these first days, the entire population of Mbau gathered in front of the palace and sang, danced to the drum beats and feasted in honor of their future chieftain.

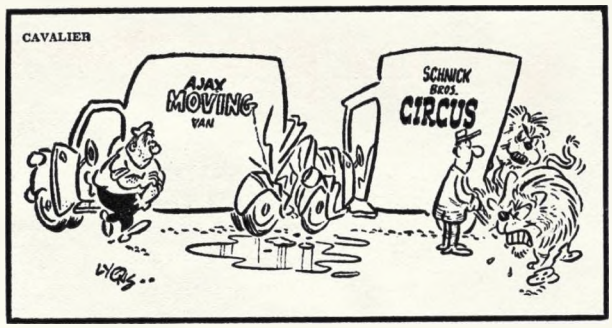
Thakombau spent the first six years of his life in the household of the chief of a neighboring village who had been entrusted with the job of developing the boy's character. The chief was a notorious butcher who slaughtered his own people for sheer sport, and he worked to harden Thakombau in his image.

When the boy was four, one of his "lessons" consisted of watching his teacher kill an entire subject community of 1800 people and distribute their bodies for food. "The resting place for your enemies should always be your belly," the chief explained to young Thakombau.

Little Seru was a good pupil. After first pondering the plan in his little mind, he struck his devoted nurse across the face with his small war club just as she was bringing in his breakfast. Her features were crushed beyond repair. He maimed his playmates with a sharp knife given him as a gift. Men carried him on their shoulders whenever he traveled, and women fanned him as he slept.

In 1823, at the age of six, Thakombau was welcomed home to Mbau by his father Tanoa. According to plan he had become a violent, passionate child with a great flair for tyranny. He did whatever he pleased. Tanoa seemed overjoyed by the results but he wanted to see for himself. "Come Seru," he said one day, "we shall see what you have learned."

Together with his father and lesser chieftains, Thakombau went on an allegedly friendly visit to a neighboring village. The host brought out his finest foods, a luscious display of nude dancing girls and a potent brand of native Fiji wine. Halfway through the festivities, Tanoa rose to toast his host. While he was praising the chief's wealth and abundance of beautiful wives, he suddenly signaled his warriors with a prearranged wave of his hand.



Tanoa's men immediately drew out their two-edged knives and attacked their hosts, killing fifty of the unsuspecting victims in an instant. A young boy of eight with whom Thakombau had been playing all afternoon was thrown at the young prince's feet, his struggling stopped by the heavy foot of a warrior on his back.

"Here Seru, take my war club," Tanoa said. "Kill the boy." Thakombau eagerly grabbed his father's club and standing over his prone playmate, pummeled his head until the blood oozed out of the shark-tooth holes and he collapsed dead. Later the small body was roasted especially for the young prince. Thakombau had killed and eaten his first man.

Each year of his youth he became harder. When he was ten, he sharpened his eye on live human targets. Children taken from captive villages were hung upside down from a tree like so many Christmas decorations, then filled with arrows shot into their hide by Thakombau long after they were dead. During his 'teens he accompanied Tanoa on his murderous raiding parties, killing and eating the spoils with the warriors. He gradually developed an overpowering taste for rare-roasted human flesh unequalled anywhere in the aborigine—or known —world.

He learned the kingly ways of the Fijis too by watching his father. One day in the early 1830's, Tanoa's craftsmen built another hundred foot long war canoe for his growing navy. The day it was to be launched into the Koro Sea, Tanoa walked into his son's room. "Seru, come see how the new canoe will be born."

Normally, new war boats were rolled into the sea off logs of coconut trees. But down at the waterfront, sixty stripped men were laid side by side on the beach, directly between the new warship and the sea. King Tanoa, proud teen-age Thakombau, and the Mbau court stood ceremoniously atop a platform and watched as the giant ship was released from its scaffolding and with a resounding crunching of human bones, skittered and slid over the bleeding bodies of the men into the sea. Afterwards, led by enthusiastic Thakombau, all munched on the remains.

When he was fifteen, Thakombau who had begun to add the joys of young Fiji women to his taste for human flesh, suddenly found his cozy life interrupted. In 1832, the lesser Mbau chieftains organized a rebellion and exiled Tanoa to one of the islands. There was a difference of opinion about Thakombau. Some of the chiefs wanted to kill him, but he was finally spared as a *harmless* boy who spent his time in gay pursuits—A fatal mistake.

For five years, Thakombau plotted revenge. Openly he played the pampered young cannibal, but he secretly schemed against the chiefs who had unseated Tanoa. One night every week Thakombau met at the waterfront to plot a counter revolution with some fishermen still loyal to Tanoa. He played and fished by day, and plotted at night. He dreamt of someday regaining his princely power—and the chance to satisfy his suffering appetite for human meat. He longed for the taste of a roasted heart. Since Tanoa's overthrow he had feasted on "long pig" only as often as any common Mbauian fisherman.

In 1837, Thakombau led a brilliant, bloody rebellion that overthrew the rebel chiefs. Although his father, who had been

brought back from exile, was still ostensibly King, Thakombau was now solidly entrenched as the real leader of his people. In honor, his name was changed from Seru to Thakombau.

He took a bloody toll for his five years of dieting. A bounty on the heads of all rebels brought in hundreds of prisoners, and for months Thakombau went into an orgy of killing and feasting on his slain victims. Those bodies he couldn't fit into his swollen stomach, he turned over to his fishermen friends. "I promised someday to repay you," Thakombau said, loftily.

He drew out his revenge as long as possible. A few months after the counter revolution, one of the rebel chiefs was flushed out of his jungle hiding place and brought before Thakombau. "Cut out his tongue and bring it here," he ordered curtly. The tongue was promptly handed to Thakombau, who walked up to the rebel munching on the raw tongue and sardonically joking with the prisoner at the same time. The mutilated rebel chief, begged for a speedy death with hand motions.

"Cut off his arm," Thakombau roared. When the arm was brought to him, he turned it up and drank the blood out of the severed vessels, tossed it into the fire to soften up the flesh a bit, then ate it while his captive was forced to look on.

Thakombau's rule—from 1837 on—was the Golden Age of Cannibalism, and the Fiji chief was its high priest and foremost connoisseur.

After his great victory in 1837, Thakombau set the pattern for a great man-eating marathon in Mbau. As the popularity of human flesh spread, no one knew from one sundown to the next whether they would be clubbed from behind a coconut tree and eaten. Women going to the springs for water were waylaid and later roasted around some family fire. Friends invited over to feast on a corpse were treacherously killed and became the main course for a similar feast the next week. Men even killed and ate their wives without benefit of even a quarrel. No one, especially succulent young maidens, were safe. The mad craze was difficult to explain except for the lack of normal livestock on Mbau and the talk that the Fijians had actually become addicted to the taste of human flesh.

Shipwrecked people, both native and white, were considered fair game for eating. According to Fijians, they had "salt water in the faces." One day when a canoe loaded down with sixteen natives capsized off the Mbau coast, Thakombau quickly ordered: "Club them as they swim ashore and roast them."

Thakombau himself ate as many as three human bodies a week. Often he amused himself by first cutting off a victim's ears and nose before getting down to more serious business. Thakombau liked his human flesh best roasted in one of the special ovens. However, for variation, "long pig" was occassionally boiled in one of the huge black cauldrons left on the beaches by visiting whalers. The storeroom in his palace was generally well stocked with parts of human bodies, strung up like salamis in a butcher shop. Some of the food was supplied by victims in battle, others killed on Mbau, and some were gifts of vassal chieftains anxious to please the cannibal with an especially good cut of "long pig." One crew of a Spanish trading vessel were eaten because they were insolent to the King.

Thakombau's appetite kept pace with his successes. The years 1837 to 1850 he was at the peak of his power. His father Tanoa, was still alive, but Thakombau was the sole despot of the Fijis. He made all the decisions of government, bargained with the white traders, and dealt with the sea captains and missionaries.

For more than a decade he rode herd on most of the 250 islands that make up Fiji. He cunningly incited two of his rivals to war against one another, then would ally himself with the weakest of the two. When his strongest rival had been defeated and his best warriors eaten, Thakombau turned on his weaker ally and polished him off in turn.

The defeated chieftains tried to appease Thakombau's temper by gifts of cadavers, coconut oil, slaves, wives, whale's teeth, etc., but this was often dangerous. When one vassal chief failed to deliver a gift of coconut oil when expected, Thakombau went and clubbed him on the spot, and later enjoyed him for dinner. When a village chief offended him in any way, he killed all the able men in town and brought the bodies back as food for his people.

The Great Cannibal was not without opposition, however. Tales of his man-eating aroused storms of protest all over the civilized world and for twenty years or more, missionaries, white traders and the ships of Britain and America tried their utmost to stop him and drive cannibalism from the Fijis. But during his prime, western civilization was no match for the misanthropic and canny Thakombau.

Thakombau's first formal contact with missionaries was not particularly pleasant—in fact, the beginning of a running battle between Christianity and the cannibal. In 1837, the Reverend William Cross, chief of the Wesleyan Missions who were planning to Christianize the Fijis, settled in Rewa, the second largest town in the islands, run by a chief married to Thakombau's sister.

From Rewa, Thakombau began to hear disturbing tales about the new religion. The missionaries were putting clothes on the maidens and trying to get the people to stop eating human flesh. Thakombau was enraged.

In 1839, Reverend Cross came to see Thakombau to beg permission to transfer his operation to the capital, Mbau. But instead of being humble before the King, Cross started to lecture him on cannibalism. "Eating your fellowman is a vile sin against God," Cross upbraided him.

Thakombau listened impassively, all the while chewing a baked forearm of one of the captured rebels. Then quickly he stopped chewing and looked up menacingly at Cross. Thakombau said: "you have made yourself an enemy for Christianity. When you grow taro on that rock I'll become a Christian. Not before. Now leave while I still have some patience with you." When Thakombau glanced meaningfully at the bloody arm in his grasp, the Reverend virtually ran out of the palace back to Rewa.

In 1841 the Reverend Joseph Waterhouse replaced Cross as the Superintendent of the Wesleyan Missions on Fiji. On June 17, 1841, Waterhouse decided to have another try at Thakombau. He entered the long, 130 foot palace, the largest house in all Fiji, and was ushered in to the doorway of the young King. Thakombau was seated cross legged on a rug, playing jovially with one of his nude wives and blowing little pellets from a bean shooter at a dozen more of them gathered around him. He got up from his plush harem nest, walked the Reverend outside to one of his roasting ovens and opened the door.

The stench of cooking flesh wafted out and the black blistering soles of the corpse's feet stared Reverend Waterhouse in the eyes. The cleric was horrified.

Christianity was making its mark on other Fiji islands, but if anything, its early efforts only spurred Thakombau on to more cannibalism. A vassal village, Somosomo, decided to build a large war canoe as a gift to the great Thakombau. The day the keel was laid, a few bodies were killed and eaten as proper offerings to the Gods, but during the two years it took to build, missionaries settled in the village and convinced the people to stop the human sacrifices.

Finally, the magnificent canoe was launched and set on its trip from Somosomo to Mbau. When it arrived, Thakombau was pleased with the fine tribute. "Have all the necessary sacrifices been made to insure the craft's sailing and strength? Has one man been killed and eaten at each stop of your journey from Somosomo to here?" Thakombau asked the mariners.

When he heard missionaries along the way had stopped the killings, Thakombau flew into a rage. "I had expected that at least the vessel would be launched over the bodies of slaves. But what can you expect of people who listen to the talk of Englishmen?"

At the traditional mast lowering of the canoe that afternoon, it slipped from its mooring and struck three Mbau men, killing one. "The missionaries have angered our gods," Thakombau railed. "Go to the village and bring enough sacrifices for a great feast."

Ten men were rounded up, clubbed to death, cut up and eaten. Then later that evening, when some of his guests were still hungry, Thakombau called for and got eleven more bodies to appease his Fiji gods.

For sometime after, Thakombau turned sullen whenever Christianity was mentioned. He knew the new religion planned to take the very food out of his mouth. He saw its popularity spreading among the Fiji people, and even on Mbau, converts were secretly being made by word of mouth. When one of his father's wives became a Christian, he forced her back to paganism by threatening to eat her.

Thakombau decided the only hope was a concerted campaign against Christianity. His well-equipped navy made periodic landings up and down the coast and wiped out small villages that had adopted the new religion.

Rewa, where the missionaries had their Fiji headquarters, was also slated for extermination. Thakombau first attacked Rewa in 1844, and while he battled for two years, the flesh ovens of Mbau were never cold. Rewa was finally defeated when shrewd Thakombau offered one of his sisters to a subchief within the city. One night the traitoress set fire to the city and opened the gates. Thakombau's men then sacked Rewa and massacred 500 people.

The victory over Rewa made Thakombau heady with power, and with his loyal chieftains he planned the murder of all Fiji Christians. Militarily, Thakombau was able to accomplish his threat. A few years before he had discontinued the cloth and ornament trade with American ships coming to Mbau. "I want only guns and ammunition for my copra oil," he told the white traders. He had accumulated some 5000 muskets, 1000 kegs of powder, all the pigs of lead he needed, rum for his warriors, and the latest American bullet molds capable of running a dozen balls at a time.

But standing between Thakombau and his plans were the missionaries. He hadn't allowed any to settle in Mbau, but dozens were firmly entrenched in other areas. He taunted the clergymen and laughed at their talk of fire and brimstone that awaited the cannibal. "Ah well," Thakombau told one missionary. "It's a fine thing to have a fire in cold weather." Another time, when a zealous minister tried to warn him about judgement day, Thakombau shook with laughter. "I suppose a boat from the other world has just arrived in England. You seem to be up on information about the day of judgement!"

But although he mocked the Christian faith, Thakombau respected the iron hand behind the new religion—the regular visits of British and American warships that made it unwise to molest the missionaries or any other foreigner. Thakombau had assembled thousands of warriors all armed with modern rifles for the final extermination of the Christians, but the missionaries learned of the plan and interceded, warning Thakombau of the consequences.

Visits like the one of Commodore Charles Wilkes of the U. S. Exploring Expedition were the only thing that tempered the cannibal ruler. In 1840, on his way back from Antarctica, Wilkes anchored his flagship *Vincennes* off Mbau. Wilkes had come to stop the Fijians from eating American sailors. Nine lives, and subsequently nine corpses, had been lost on a recent U. S. Navy trip to the islands.

The day Thakombau boarded the ship by invitation, he had already heard how Wilkes' men had to fire warning cannon shots into a Fiji village to capture the men responsible for eating the American boys. One of the Fijians was being taken back to America as a prisoner. Wilkes treated Thakombau with the dignity due a king, and gave him a musket which he quickly dismantled and put together like an expert gunsmith. But the seed planted by Wilkes' trip later saved many a Christian from Thakombau's hot ovens.

But nothing, it seemed, could break Thakombau's regal arrogance. Every time he conquered another Fiji village, he became more overbearing toward the whites. He made and broke deals at his convenience, usually pocketing the cash.

The great cannibal was now at the height of his power, and living it up extravagantly. He ordered a great stone palace built for him and his wives. To make himself feel on par with the visiting warships that gave him his only pangs of inferiority, Thakombau bought an expensive gunboat from America and ordered another for his native navy from Sydney, Australia.

But about this time, in the late 1840's, Thakombau's troubles began. The chief mason building the palace absconded to America with all the cash meant for materials, and the cost of his ships and wars put Thakombau heavily in debt. Conditions in the Fijis became more chaotic than ever, and the nervous whites and missionaries appealed to their governments for official help. From 1848 to 1850, Mbau was visited by four heavily armed British warships, and two years later by two American gunboats, all sent with orders to do whatever possible to curb Thakombau's unnatural appetite and destroy cannibalism.

Thakombau was seated in his throne room one day eating a distant relative who had dared attend a mission school on the mainland, when a messenger dashed in. The H.M.S. *Calypso* under Captain Worth had just shelled and destroyed a village where two white men had been killed and eaten.

"I still think I heard a man's voice."

Thakombau worried about the news, when not many months later in 1849, the H.M.S. *Havannah* dropped anchor off Mbau. The *Havannah* was under the command of Captain John Erskine of the Royal Navy. Erskine and his party of officers immediately went to call on Thakombau. The monarch showed the shocked Captain and his party the sights of town including the temple, the five ovens for cooking human bodies, and neighboring trees from which scraps of flesh, the remains of last night's feast, were dangling from branches.

The Royal Navy returned his hospitality, and Thakombau was invited to spend a few days aboard the *Havannah*. The next few days Erskine put on a spectacular target show that dazzled and frightened the man-eating monarch.

"Take my spy glass and go out on the bowsprit where the smoke won't cloud your view," Erskine told Thakombau. "If you look through your glass you'll see a dummy figure of a man in a hammock slung across the face of a rock a half mile away. Watch what my gunners do to it."

Thakombau squinted through the telescope. When he saw the minute target, he laughed heartily at the captain. "You English are bold braggarts."

The gunmaster of the *Havannah* gave the order to fire and a few seconds later, the head of the small figure was blown off by grapeshot. The next two rounds completely demolished the target.

The smile wiped itself off Thakombau's bearded face and he became frightened for the first time.

Thakombau was never the same again. "I no longer feel secure," he told a fellow chief despondently the next day. "Should I offend these people they have but to bring their ship to Mbau and pick me out with their long spy glass. My head would fall at the first shot."

The next year, 1850, Captain Fanshawe of the H.M.S. *Daphne* visited Mbau and both lectured and threatened Thakombau about his cannibalism. A few months later, Lieutenant Pollard of the H.M.S. *Bramble* extracted a promise from Thakombau that he would try to prevent people being killed just for food. But when he asked that bodies sent as presents be properly buried, Thakombau was insulted. "It would be too great an offense not to eat such splendid gifts," he told the lieutenant.

The next day, to show that he meant it, Thakombau roasted three bodies sent as tribute, eating a good part of one body—from head to toe—by himself. In 1851, Thakombau acceded to another demand of the whites and allowed Reverend Waterhouse to preach a sermon on Mbau. But to maintain his self respect he ordered the makeshift church stoned during the service.

On December 8, 1852, his aged father, Tanoa, died. In his last words he asked: "Son, I pray many of my wives will be strangled to accompany my spirit on its journey." According to Fijian lore, it was a sign of prestige to have a large number of wives killed the day of a man's death. Thakombau himself

tightened the cord that strangled his own mother, but Reverend Waterhouse raced into the palace just as he had strangled another of Tanoa's wives. "Stop this murder!" the missionary shouted.

Thakombau, however, went on with his task and killed five wives before, with the missionary's din in his ear, he called a halt as a compromise.

By 1853, Thakombau's power had begun to diminish rapidly. He continually raised the taxes to pay for his extravagant wars, and the populace grumbled. Rebellions against him spread throughout the Fiji Islands. The other chieftains, who had respected his strength against the white men, saw that he too was beginning to knuckle under the English and Americans—and their strange God

Thakombau took stock of his crumbling position and decided on a last fling at the things he had been brought up to respect. For a short while it was like the old days. On July 26, 1853, eighteen people were slaughtered and their bodies eaten at a feast in Thakombau's honor. Soon after, Thakombau invited three of the rebellious chieftains to come to Mbau to discuss peace terms. During the meal, he treacherously killed them in their seats. Later that moonlit night, a band of his bloodiest warriors playfully nailed the cooked arms and legs of the rebel chiefs on the windows and doors outside Reverend Waterhouse's home. When Waterhouse arrived home, the happy cannibals slapped their thighs in glee at his horror, and invited the clergyman to join them for dinner.

His empire falling apart about him, Thakombau planned a final campaign to crush his foes. However, the great scheme fizzled and the thirty-six-year old cannibal slunk back to his palace a beaten man.

On April 27, 1854, the beaten king took the distasteful, but only way out. He asked Reverend Waterhouse to make him a Christian and tearfully swore to outlaw cannibalism in Mbau and the parts of Fiji he still controlled. He was converted three days later and took the old biblical name, Ebenezer. Thakombau had eaten his last fellow man.

As a respectable Christian, his fortunes changed dramatically. The United States sent a shipload of guns and ammunition to be used to crush the rebellious chieftains. Under British advice, Christian King George Tubuo of Tongo sent 3000 warriors and 40 war canoes. With this help, Ebenezer, the old reprobate cannibal, won a dozen bloody campaigns and was once again firmly established as the sole ruler of the Fijis.

This time, however, the dead bodies of warriors were properly buried—and the victory feast at Mbau featured only boiled fish on banana leaves—a pablum diet to Thakombau.

On October 12, 1858, Thakombau ceded the Fiji Islands to Queen Victoria in return for enough cash to liquidate his debts, and he was pensioned off at 1500 pounds a year. His shark-tooth studded war club was presented to Queen Victoria as a gift, and in 1931 when it turned up at Windsor Castle, King George gave the bloodied weapon to the Fiji Parliament where it now serves as the Imperial Mace.

Thakombau, King of the Fijis and cannibal extraordinary, lived out his life as a respected, Christian personage. However, in 1883, at the age of 67, Thakombau lay down for the last time. As his fiery old eyes grew dim with death, a smile of memory moved his lips. The old chief was the passing figure of an era, and, as he died, no doubt he was happily reminiscing the days when the thuds of the war clubs were followed by the roaring feast ovens and the finest of all foods. When he died, so died the greatest of cannibals and the days when "long pig" ruled the feast tables of the Fijis. •

FLESH AND BLOOD CANNON BALL

Continued from page 39

and the list of injuries is astounding. A fact making it something more than a casual undertaking.

When I was a circus-happy kid twenty years ago, the Zacchini family's cannon act was the sensation of all circusdom, and, until 1938, Ringling Bros and Barnum & Bailey's outstanding feature.

Over the years I lost track of Hugo and so was pleasantly surprised this past October to find his cannon business still booming. I found the great Zacchini on the Cristiani Bros. Circus, a good-sized family truck show, then bumping its way across Mississippi doing a one-day-stand at Gulfport.

The show's second half had been cut to the elephant act, clowns and the cannon, which, I learned, is never omitted from the Cristiani program. "Hugo, he goes in any weather," said Pete, one of the Bros. "Ain't he Mr. Cannon himself? He ain't never missed a jump for us yet: the only one can do it every day without fail."

The cannon stood at the far end of the tent, an ominous, glowering silver collossus. (It is a cannon in name only, consisting of a stout, specially constructed aluminum tube, mounted atop a truck which has been boxed-in to look like an armored car.) Hugo was waiting alongside in his special leaping boots of kangaroo hide, dousing his white-leather siren suit with talcum powder (to minimize friction within the cannon's barrel). An usher-in-waiting stood by with Zacchini's lush, burgundy-colored velvet cape draped over his arm.

The cannon's trigger-man, a stringbean named Bill Corey (with Hugo since 1941 and known around the lot as "Cannon Corey") was moving about the truck like a chimney-swift, hooking up thick black cables, turning up rheostats, throwing switches.

Looking at Hugo standing there it was easy to understand his incredible record as the world's most expert human cannon projectile. He is 5-foot-7, weighs 172-pounds, and is built like the legendary brick donnicker. He has a bullet-like head with a large, strong nose. His grey-green eyes are lively and very deep-set. His face is animated, his mouth quizzically crooked, and his high cheekbones would easily pass him for an Indian in the "alteplano" of Peru (where he was born, 1898, in a small Andean village just outside Cuzco). Altogether, he looks like a rough-cut version of Spencer Tracy.

The Ringmaster's whistle shrilled. The band broke off its galumphing gallop. The clowns escaped.

Fanfare from the band. Hugo scampered down the track toward his artillery, made a skip-running entrance into the ring (reminiscent of both Manolete, the matador, and Peter Pan), and greeted his audience with the bravura of a Roman gladiator.

Doffing the cape, he climbed onto the cannon truck. From front fender to hood to cab-top, then gingerly walking a narrow runway the length of the barrel, he mounted it from the rear. As the metal tube elevated, Hugo stood and elaborately sighted down its length. When the barrel reached its angular firing position the Ringmaster intoned again, proclaiming Hugo's various accomplishments as an artist, inventor, architect and soldier, enumerating the honors bestowed on the Great Zacchini. During the applause (the main reason for this accolade), Hugo pulled on his leather helmet and heavy plastic mask.

Then he saluted both sides of the tent, looking a bit like an Indian scouting new hunting grounds. After executing an extremely broad Sign of the Cross, he walked skittishly up the steep grade of the elevated barrel (like a diver feeling out a slick diving board) and lowered himself, feet-first, in to the cannon's muzzle.

The Ringmaster respectfully requested ". . . absolute silence so that Signor Zacchini can hear the signal that will mercilessly hurl his body from the mouth of the monster cannon!"

Corey was at the cannon's front now, directly below the yawning muzzle. A small, sinister black box perched on the truck's right fender, a thick black cable running from it back to the cannon's switchboard, located inside a shallow compartment on the truck's right side.

The trigger-man shouted—side-mouthed, and with such force that his face turned slightly purple: "HUGO! ARE YOU READY?" From inside the barrel came a muffled response, as from a tomb. Then Corey dashed to the control board, threw a switch and hot-footed it back to the front-fender box. The cannon and the audience were both very quiet.

Again Corey shouted—even louder and more purple than before: "HUGO! FORZA!" (Stiffen. Put your power in yourself.) A small hollow voice inside the cannon answered: "Forza!"

Corey then flipped the handle on his trigger-box and B-A-N-G; F-L-A-S-H; W-H-A-M-M-O! Hugo Zacchini, the high caliber champ, whipped out of his cannon so fast he was a hardly-visible blur, did a quick, half-somersault flip and landed on his back in the net, his head pointing cannon-ward.

Because of the rain and the wet canvas, the noise was tremendous. The audience, as one man, did a mass-jump several inches off their seats. The explosion kicked up sawdust clear over by the Grandstand section where I stood, a good 40-feet distant. When the people came out of their momentary shock, they seemed pleased to have seen a man shot from a cannon, relieved to find him still in one bloodless piece.

Hugo's present jump, between 75 and 100-feet, is a small one, but he considers it among the most dangerous he has ever attempted, for he must go into his tuck almost immediately upon leaving the cannon in order to strike the net safely. If he does not coil into landing position quickly, he can be seriously hurt or killed .

Hugo's shortest, and likely his most hazardous, jump was at the Atayde Circus in Mexico City—a scant 50-feet. The tent was extremely small, and to achieve even that short distance the cannon had to be placed outside the tent with only its muzzle sticking in. There wasn't much height either, which meant an almost horizontal, extremely risky, shot into the net. Cannon men feel that a high arc is the safest, since then they have time to plan a landing.

The average jump is 175-feet trajectory distance, which is always quoted by cannoneers because it sounds like more of a jump than straight ground measure.

At the New York World's Fair, Hugo claims to have gone 318-feet. A record arc of 320-feet, with a 125-foot summit, is claimed by Emanuel, an adopted Zacchini. That jump was made over three ferris wheels, placed rim-to-rim, at the James Strates Carnival in 1940. Such extraordinary arc distance is possible, although the extreme height seems like pure circus hyperbole. For, even if such a flight were made over the largest wheels, No. 16 Big Elis, which are 55-feet in diameter, it is doubtful that the trajectory's zenith would exceed 85-feet—an impressive height, none the less.

Hugo says of Emanuel: "A *great* cannon man, but he broke his neck." Both brothers regard another adopted brother, Vittorio, as the most artistic projectile. "He soared like an eagle," says Emanuel. "Like a condor," adds Hugo, in supreme admiration. Vittorio, who was best outdoors and not skilled at indoor flights, finally lost his nerve. He now builds Fun Houses for carnivals and fairs.

A cannon man's ideal net-landing position is the same as that of a flying-trapeze aerialist: flat on the shoulders, chin tucked in to chest, arms folded onto it, hands in loose fists. Hugo prefers a "soft net" (loose) for landing, all other Zacchinis (there are seven brothers) have preferred a "hard" one (tightly stretched). Hugo justifies his choice by the fact that he's still leaping, the others are not. "Either way," he says, "it's a terrible chance, but I prefer to risk my life against the ground than to be thrown by the net."

For a single-shot cannon, the net is 25-feet by 50-feet; double-shot, 25 by 70. To a cannon man on a high shot, the net looks like a small, ladies' handkerchief.

The net is the ogre of the cannon act. Most casualties have come from hitting it badly, through over-shooting or under-shooting as the result of a mechanical miscalculation. Sometimes, however, a jump is shortened by striking something en route. Hugo's nephew, young Egizio (Eddie) once encountered a fairgrounds' photo-finish wire which stretched from the high-up judges' stand to the racetrack. It broke his flight so that he barely made the net's edge, landed roughly and tore his insides. (Eddie also once wrapped his stomach around a high-wire act cable while in flight.)

Outdoors, aerial crosswinds can foul-up a cannon man's flight. If a crosswind turns the projectile 100-percent, he loses control completely and lands disastrously. If it turns him but a little, he simply slip-glides like a bird into the net. Emanuel once was shot too high, beyond the wind-break protection of a fairgrounds grandstand. The breeze, whipping over the roof, caught him, turned his body in the air so that he saw the net too late. He was lifted out with a fractured knee.

Hugo considers the cannon itself the most potent danger lurking for a cannon man. "If the piston hits you before you ready," he says, ominously, ". . . hamburger!"

The Zacchini family, greatest practitioneers of the art of human cannon-balling, sports a long list of cannon injuries, though no Zacchini has ever been killed. All the males and most of their offspring have been involved in the treacherous business. And all bear its scars.

Emanuel broke a leg and twice an arm, besides his broken neck and fractured knee. Flora, one of his daughters, broke an arm twice, giving her a permanent disability.

Vittorio damaged his spine, and injured the longest muscle in his leg, giving him a permanent half-paralysis.

Edmondo has had four leg fractures, and five operations because of them. His daughters have not escaped unscathed. Egle Victoria has had both arms and her nose broken. Duina suffered a concussion when a net collapsed under her. ("Immune," comments Hugo, "except she had a nervous breakdown.")

Of the remaining brothers, Mario lost an eye and broke a shoulder. Teobaldo broke his spine falling out of the barrel while setting up, and would dearly love to give the cannon credit for one broken leg. But his cannon-pure family, who allege the leg was merely broken on a merry-go-round, dispute the claim. To them a cannon injury is a sacred, inviolate honor, not to be trifled with.

Bruno, always a trigger-man never a projectile, remains whole, but his daughter "Chacha" (Brunhilde Sylvanna) broke two legs and one hip by cannon.

Hugo, himself, has had four broken ribs, a "distorted" spine, dislocation of both legs at once, a broken shoulder and ". . . maybe a hundred other minor hits," he says casually, including one which scraped all the skin off his back.

The main reason for this extraordinary cannon carnage is that the act depends largely for its success upon a mechanical device. Circus people believe that danger increases in direct proportion to the use of mechanical apparatus. A high percentage of circus accidents happen on the way up to the rigging, or on the descent—and usually from faulty apparatus.

The earliest record of a death from the cannon act is of one Lizzie Davene, catapulting in 1881 from a device boasting a U.S. Patent Office number (248,639). She struck the net on her head in Wilkes-Barre, Pa., on a Tuesday and was en route to Heaven the following Friday.

One Wm. C. Miller, cannon-hurled into the Pacific at Ocean Park, California, had his act abruptly closed by a huge comber. He never came up.

One Cliff Gregg, at Oklahoma City, missed the net and hit on his head. Final Curtain.

The most grim death by cannon was that of Harry Ackenhausen in 1929 at Springfield, Massachusetts. Ackenhausen wasn't able to report what happened, but apparently his head struck the rim of the muzzle on his way out, hard enough to chop his tongue in two (he also suffered a fractured jaw, cuts and abrasions). Harry dangled head and shoulders out of the cannon's mouth, dripping a pool of blood below it, into which he flopped with a horrible plop when the barrel was lowered.

The cannon act is in reality a catapult act, and as such it goes back in circus history almost a half century beyond the Zacchinis, who produced their first cannon in 1921.

These mechanical thrill acts originated in England. The first to appear in America was at Niblo's Garden, N.Y.C. in 1873, presenting a female impersonator, billed as "Lulu," who was driven vertically to a trapeze 30-feet in the air by a small spring plate flush with the stage floor.

In 1879, at the Court Street Theater in New York, one George Loyal was being shot from a cannon to the auditorium's upper reaches, to be caught by a trapezist named Ella Zuila. If she missed, George dropped to a net.

P. T. Barnum's 1880 Circus featured "Zazel, the Human Cannonball," a young British twist named Rosa Richter. She was reputed to be able to do a "60-foot horizontal aerial dive."

One of the most unusual cannon acts ever presented was that of Bobbie Jean Bernhart, star of a 1930's fairgrounds' revue, "Soaring High." This doughty lady was shot 75-feet out of a 10-foot cannon, and was caught, not in a net, but in the arms of two men partners.

The germ of the Zacchini cannons was planted in father Hildebrando when he was a 22-year-old Lieutenant in the 3rd *Genio Specialisti*, an Italian army unit which designed the

fortifications in the combat against the Red Sea colony of Eritrea in 1890. Lt. Zacchini thought it might be sporting to shoot soldiers behind the enemy lines, only he couldn't figure out how to land them safely.

After Hildebrando's discharge he entered the Art Academy at Rome, but soon ran away to the circus to become a trapeze artist. Wasn't long until he married Madelena dal Paos, an Italianborn Brazilian, laid out his own family circus, and began stocking it with bambinos.

The eldest son, Edmondo, became famous as a musical clown, *"Pagnotta"* (little loaf of bread), but he also understood machinery. After graduating from the University of Turino as a mechanical engineer, Edmondo helped his father develop the cannon notion into a circus act, with a strong assist from all the brothers big enough to hold a wrench, including Hugo and Bruno.

Edmondo got busted up a bit experimenting with the principles of catapultion, but the first Zacchini cannon made its debut at the Metropole Theater in Cairo, Egypt, in November 1922, popping the eyes of a thousand British Tommys and scaring the hell out of hundreds of assembled Egyptians.

Hugo was the first bullet. *"L'uomo-Proiettile"* they called him. The gun, looking like a big howitzer, was mounted on an open truck chassis, and operated on a simple catapult principle.

An Arabian revolution in 1923 destroyed Papa Hildebrando's Olympic Circus, but the cannon survived, and Hugo, with Bruno acting as trigger-man, became the hot-shot of the Continent, doing Command Performances and corraling a passel of gold medals, decorations and honorary diplomas.

An air compression method of catapultion was built into Cannon No. 3, which looked like an armored tank. It toured Russia, and was once held for 100,000 lire ransom by Italian *Fascisti*. At Copenhagen's Tivoli Gardens, the late John Ringling caught the Hugo-Bruno act, hired it for his 1929 season.

Cannon No. 3 retired, and No. 4, built in Paris winter of 1928 (the only circus apparatus ever blessed by a Cardinal at Notre Dame Cathedral) made the American debut at New York City's Coliseum in the Bronx.

Meanwhile, back at the machine shop, Edmondo, aided by Vittorio, was building Cannon No. 5. With it, this pair of Zacchinis migrated to the U.S. in 1930, following Mario and Emanuel, who had been hired by Ringling Bros as equestrians.

In America, Edmondo discovered aluminum, and began hammering out Cannon No. 6, followed in 1931 by No. 7.

After a couple of seasons, Mr. Ringling, impatiently chomping his *panatella*, asked the Zacchinis if they couldn't somehow liven up the act a bit. Edmondo thought that maybe shooting *two* men would do it. J. R. was enchanted, and immediately plastered New York with 24-sheets, announcing his star attraction for the 1934 season: "Two Human Projectiles Shot From The Mouth Of One Monster Cannon!"

One week before the spring opening, the family didn't have the blasted thing ready. Finally, with only four days to go, the Clan Zacchini gathered at dawn in the practice lot behind the family compound in Tampa, Florida.

Two dummy bullets—slim, man-sized, sand-filled canvas sacks —were loaded in the cannon. Edmondo threw the switch and they shot out okay into the net. Then Hugo, who has been first live ammo out of seven of the Zacchini cannons, and Vittorio climbed in, while an edgy family practitioner stood by, his satchel open and ready.

"Ta-poom! Ta-poom!" says Edmondo, remembering that epoch making day. "It work perfect! One hundred eighty feet!"

The wildly enthusiastic family wheeled the cannon onto U.S. 41 and headed for New York, arriving at Madison Square Garden, sleepless and bearded, five hours before the Ringmaster's opening whistle.

The double-cannon rocked New York. And, although Zacchini didn't exactly become a household word around Manhattan, the boys were acclaimed by public and press, became real stars of the tanbark, and Hugo took to wearing a frock coat, striped pants and a black fedora.

A more grand double-cannon (No. 9) appeared for the 1936 circus season, followed several years later by the present cannons of Edmondo, No. 10 (single) and No. 11 (double).

Hugo puts the cost of a cannon at $35,000 to $50,000, truck included; Emanuel says $27,000; Edmondo, $14,000 to $16,000, exclusive of the truck, which runs around $5,000. At one time, the Zacchinis traveled with five cannon units: three doubles; two singles.

Hugo's present cannon is No. 8 of the Zacchini line of custom-built artillery. It is that first, double-firing one, converted to a single-shooter.

The enormous gun barrel was nesting now on the truck top, and a quick pace-off alongside it gave me its length, 24-feet. Corey, who was fiddling with a mechanical something around the back of the truck, told me that the outside diameter of the barrel is 36-inches (30 inside), that ordinarily a single-shot cannon's muzzle is 19-inches inside diameter, the double 23.

The truck on which this ancient field-piece is mounted is (also according to Corey), ". . . the biggest, heaviest White truck they had back in them there days." There has been one transmission, one motor replacement. Credit the cannon-truck's exceptional longevity to its plush method of traveling in the early days, when it moved on its own power only from a flat-car on the circus train to the show-lot and back.

In the truck body, on the driver's side, is a low-ceiling cubicle, about the size of a large packing case. It is Hugo's dressing room, machine shop, artist's studio and catch-all. In the door-

"In the barrel," continued Emanuel, "you wriggle around, get comfortable, check shoe-laces, buttons, zipper, helmet strap and visor—be certain you're straight . . . then your nose itches."

The projectile stands inside an inner moveable capsule, open at the top, and lined with 2-inch felt padding. He holds himself rigid, buttocks and crotch supported by a padded metal scoop much like a bicycle seat. His toes barely touched the floor of his tube-like container. The arms are folded into the chest, each fist held just above a nipple. The head is arched back against the shoulders. If the projectile is not in exact position, he can be doubled up on ejection and badly broken.

The "bullet" doesn't hear the rear explosion or see the muzzle flash. He's gone too quickly—only 1/20th of a second to clear the barrel. Velocity has been estimated by the Zacchinis at 250 mph. Some experts put it as high as 400 mph, but others claim it cannot exceed 100. ("How in hell you gonna check it," asked one grizzled showhand, "unless you hang a speedometer on his kiester?")

Contrary to legend it is not possible for a human projectile to be trapped in the barrel. If the mechanism jams and does not fire the bullet, he simply climbs out under his own power. However, if the jam should release and fire the cannon while the man is climbing from the barrel the result would be, as Hugo so aptly put it, "hamburger."

The "bullet" is usually at the top of his flight before he is able to straighten out and look around (he can see people down below still holding fingers in their ears). He then glides leisurely, using feet and hands as rudder and elevators to control his drop into the net.

In his prime, Emanuel did a triple somersault on his net bounce. "But after six, seven years you can no longer do fancy tricks," he lamented. "First you do a triple, then you find you can do only a double, then a single—then you just hope to make a decent landing."

While circus audiences like to believe a man is really shot from the cannon, everyone knows the daredevil is actually being ejected mechanically. The explosion, blasting downward and backward, never enters the barrel, has nothing to do with the flight of the man. It is solely for shock effect. The rim flash, while adding to the cannon illusion, also masks the slight thrust beyond the barrel's end of the inner capsule carrying the man bullet.

The cannon's innards are restricted but not top-secret. Emanuel said, "Even if I tell you precisely how it is done nobody can construct the same as us. So gentle made."

Here is roughly the way the cannon operates. The moving capsule is pulled back by a motor winch onto springs, compressing them. Further tension is achieved by a sling-shot-like stretch of live rubber. (The effect of climatic change on these cords was studied for one entire year before they were incorporated into the cannon. It was found necessary to add five-feet to the propelling distance for each 10-degrees upgrade of temperature.)

When the capsule is as far back as it can go, it is locked securely in firing position by a pin, held tight by a magnetic generator. The moveable capsule's base now rests on 4 pistons,

each 6-inches in diameter. They extend into a chamber approximately 36-inches deep, 16-inches in diameter. Air is forced into this chamber until a pressure of about 1800-pounds is reached.

When all is ready a switch shorts the magnetic generator, releasing the holding mechanism. The pistons and the springs in one simultaneous movement shoot the capsule forward for a distance of about 15-feet, this rude shove-shock absorbed by the rubber cords, which also prevent the moving capsule from leaving the cannon barrel. The capsule's sudden stop shoots out its passenger and he describes his parabola in the air.

None of their imitators have been able to equal the Zacchini brand of mechanical genius. Some of them, trying to solve the cannon's riddle, discredit the use of compressed air. "Why, to shoot a man that distance," one told me, "you'd need an air tank half again as long as this shop." However, several engineers disagreed. "You can compress air until it becomes liquid," one told me, "and shoot a man clean across Dade County with it."

Hugo's income from cannon-balling varies from $500 a week to $1,500, depending on the type of engagement. Edmondo gets $5,000 a week for his double and single cannons, plus a 3-people flying-trapeze act; $3,500 without the double cannon. Emanuel once had to cancel a 32-week, $1,000 per-week contract when the cannon lowered the boom on his bullet, daughter Flora. "Money only go to a certain point," says Hugo philisophically. "Is only to eat and some not even able to eat. They have ulcer."

Hugo's 1956 season was a rugged 20,000 miles long. From Tampa in March he jumped to Los Angeles, shipped to Honolulu, flew back, returned by truck to Tampa, went to New Orleans and then to Suffolk, Virginia, for an 8-weeks tour through the deep South with the Cristianis, closing October 22nd.

Hugo's greatest pleasure last season came when the Cristiani Circus played Sarasota, hometown of Ringling Bros and Barnum & Bailey. Many of the old circus pros had not seen Hugo in years and weren't aware that he now covers his famous, familiar bald dome with a large expertly-woven curly black hair-piece.

So Hugo had himself announced as a *second* generation Zacchini and tripped on like a sophomore schoolboy, fooling everyone, even his old boss, Ringling Performance Director, Pat Valdo (53 years in the business). Hugo wept tears of joy at the resounding success of his innocent hoax.

Hugo Zacchini's winters are spent at his small chicken ranch outside Tampa. "Two thousand chicks will bring $5,000 in eggs," is his rosy dream, "and then you kill the chickens and sell them too, and then I open my Spaghettirium. Why not? They have seaquariums, oceanariums, lubritoriums. Why not a Spaghettirium?"

To those few that have the temerity or the ignorance to ask Hugo Zacchini why he continues his hazardous and perilous business with the cannon, he is a patient man. He has a simple and proud explanation: "I am a son of the circus." •

WILT THE STILT

Continued from page 28

what he's been promised. I didn't ask the boy."

"Could the alumni be contributing?" Allen was asked.

"If anybody, any alumni, are contributing for Chamberlain, I know not a thing, not by wink or nod," the former coach said. Then he added, "When alumni get into it and get interested, even the president of the university doesn't know what they do. There's always alumni, you know."

Among those who also interested Chamberlain in going to Kansas were three influential Negroes, two of whom are Kansas graduates, and a third whose children are alumni. They are Dowdal Davis, editor of *The Call*, a Negro paper printed in Kansas City; Etta Moten, a concert singer who was trained by Donald Swarthout, dean of Kansas' School of Fine Arts and an uncle of diva Gladys Swarthout; and Lloyd Kerfords, whose children were graduated from Kansas and who may have been the most influential of all.

Kerfords visited Chamberlain in Philadelphia and is reported to have been present at the final meeting with The Stilt and Allen at the Eldridge Hotel in Lawrence shortly before Wilt made up his mind.

Kerfords is reportedly a man of great wealth. He owns the caves in Atcheson, Kansas, which the U.S. government rents for the storage of surplus food products. He is also the owner of a manufacturing plant in which Negroes and whites are employed in almost equal number with equal opportunity for advancement. Chamberlain went on a tour of the plant with its owner during his visits to Lawrence and was entertained in the homes of Kerfords and other Kansas Negro families, who reportedly have pleasant relationships in Lawrence.

To all outward appearances Chamberlain's advent at Kansas was just as pleasant in September, 1955. In his final season as coach, Allen put up an unsuccessful fight against the Kansas University mandatory retirement rule. It was obvious how much the veteran mentor wanted to be coach when Chamberlain became eligible for varsity competition. In a pre-season exhibition game, between the freshmen and the varsity, for which 14,000 fans packed the campus gym, Chamberlain scored 42 points for the frosh, though often triple-teamed, and complained he had an off night.

Eager Kansans forgave Wilt for his lapse, licked their lips and thought about the soon-to-come days when he'd be having on nights as well as those 42-point off-nights against other varsities.

Then the first bomb went off!

It was dropped in Cumberland Md. by an obscure bombardier named J. Suter Kegg, sports editor and columnist of the Cumberland *Evening Times*. In a column meant to be more philosophical than explosive, Kegg used Wilt Chamberlain as an example of how a person's fortunes could change in just a few years. Here Wilt was now playing in front of some 14,000 fans in Kansas, Kegg pointed out, and just a short time before he had been playing in front of a mere 200 in Cumberland. For those of his readers who couldn't remember the name, Kegg explained that Chamberlain was the same youngster who under the name "George Marcus" had scored 44 points for the Pittsburgh Red Raiders against the Cumberland Old Germans three years earlier.

By itself, Kegg's column, though it threatened Chamberlain's eligibility, might have received little attention except for the "pressure" circumstances which seem to have attached themselves to Chamberlain.

For one thing this was an Olympic year. For another a good deal of hostility exists between officials of Kansas University and amateur officials from other sections of the country. The feud was heightened by A.A.U. action against Wes Santee last summer, but it had a seasoned existence long before Santee took a few bucks under the table. For a third, Chamberlain's name, already well-established in Philadelphia, was a choice target for poison-pen letter-writers.

Together, the circumstances threw The Stilt into the middle of a stewing cauldron, which reached a considerable boil last April 6. That day Harry Grayson, sports editor of the NEA, broke a nationally-syndicated story that an A.A.U. investigation "may cost the University of Kansas the services of the fabulous seven-foot basketball player, Wilt Chamberlain."

In Kansas Chamberlain denied ever having played in Cumberland under an assumed name while Phog Allen yelled "plot!" The A.A.U. was out to get him through Stilt, the coach charged. Unlike many of Allen's howls, this one made sense. In New York Harry Henshel, chairman of the Olympic Basketball Committee and an old antagonist of Allen's, admitted checking on a tip from a Philadelphia source questioning Chamberlain's amateur status.

Henshel said that late last March he has received a letter, postmarked from Philadelphia, signed, "H. Norman," and containing the column written by Kegg and newspaper accounts reporting that Chamberlain might attempt to become an Olympic candidate by playing in the Denver A.A.U. tournament, one section of the Olympic tryouts.

Actually, Chamberlain could not have tried for the Olympics, unless he was willing to relinquish his college eligibility. A Big Seven Conference rule forbids freshmen from participating in

post-season events.

Nevertheless, Henshel wrote to Sports Editor Kegg on March 29: "I understand that you have recently written in your paper mentioning that Wilt Chamberlain played in your city under an assumed name while a senior (sic) in high school.

"Would appreciate any clippings re Chamberlain and 'Marcus' and any other information you would be kind enough to send me regarding Chamberlain playing 'outside' ball under his own or an assumed name.

"My informant also advises that Chamberlain was a member of a team called 'Pittsburgh Raiders' sent to your city by a Philadelphia booking agency. Could you give me the name and address of that agency?"

When the news of Henshel's investigations reached Allen, the veteran coach brushed aside the official's explanation and charged that Henshel was being vindictive and spiteful. Allen and Henshel had tangled as far back as 1936, when basketball was included in the Olympics for the first time. Allen had been named the U.S. team's first coach, but had resigned after a rhubarb with officials.

In December, 1955, Allen and Henshel went at it again when Allen defended Santee against the A.A.U. and charged that Henshel was a quadrennial hitch-hiker to the Olympics at public expense. Henshel retaliated with the threat of a $35,000 slander suit.

In a signed article in a national magazine, Allen then charged that Henshel was out to get Chamberlain. "He did his best to fix it so Chamberlain couldn't even play amateur ball again," Allen wrote. "He tried desperately to dig up some dirt to throw at the boy and spoil his reputation, but there wasn't any dirt to be dug, so Henshel finally had to give up."

Henshel denied this, although he admitted checking on Chamberlain and receiving a reply from Kegg in the form of a photostatic copy of the column. "So long as it was possible that Chamberlain might try for the Olympic team," he explained, "I was interested. However, I now have no interest at all in Chamberlain or professionals of any sort. This is strictly a college matter. Neither the A.A.U. nor I have anything to do with it. If Chamberlain plays or tries to play under A.A.U. jurisdiction, that would be another matter again."

Closer to home they weren't giving up. On the same day Henshel said he had no further interest in The Stilt, Wilbur (Sparky) Stalcup, Missouri University's basketball coach, urged the NCAA to use some money to "ferret out cases of recruiting violations in our conference."

Speaking at an all-sports banquet in Topeka, Kas., Stalcup said, "It's time to decide whether we want college sports or professional sports. Recruiting violations are worse now than at any time since I entered coaching in 1932."

Almost pointedly, Stalcup avoided mentioning the recruiters or recruitees by name.

"I'm not pointing a finger at anybody," he said, "but I think I could. Big boys are expensive and the guy who gets them has the big advantage. It's no secret how it's done. Alumni make under-the-table deals and they're hard to trace. We coaches know what's going on. We know the bidding and asking level for the big boys. When there's a big boy somewhere and a lot of schools bid for the boy and one school gets him there has to be an inducement."

The Kansas City *Star* reporting Stalcup's charges the next day headlined the Story—"Bid for Cagers." Despite the coach's studied neglect to name names, a subhead in the newspaper story read: "Broad hint about cases in conference, although he doesn't name Chamberlain."

Stalcup's speech may or may not have lit an investigative fire under the N.C.A.A. and Big Seven Conference, but as this semester began, Walter Byers, secretary of the NCAA, was busy neither confirming nor denying statements that the college sports supervisory body was looking into Chamberlain again. Rival coaches of Kansas were screaming about The Stilt playing against them while some rival athletic directors were rejoicing at the thought.

This paradox is easily explained—far more easily than how Chamberlain got where he is. On the one hand the Jayhawks virtually have been conceded the championship for as long as The Stilt plays for them. On the other, every one of Kansas's games, at home and away, was a certain sellout because of Chamberlain's presence in the lineup.

And how is the center of all this, Wilt himself, reacting to the pressure? So far as anyone can see, he is not bothered by it. That might seem hard to believe but you have to remember that Wilt is no defenseless kid. He's surrounded by some smooth operators who've been at this kind of game a long time and the evidence is strong that Wilt knows how to take advice. Wes Santee's recent admissions don't make these Kansas advisors look any better but, for the present, Wilt's explanations and answers about his choice of Kansas (he was impressed by Kansas, the coach, the people) are good enough for his needs.

It is also evident that Wilt knows how good he is as well as what is good for him. Again it must be realized that fame is nothing new to Wilt. In the basketball world he's been a celebrity since his sophomore year in high school. To the question "Has Fame Changed Wilt Chamberlain?" there is only one truthful answer—YES. Fame has given him an adult realization of his worth in the basketball market. When Wilt was in high school, he was friendly to and cooperative with newspapermen and photographers. Now he is more cautious and, in some cases, plain cool about whom he talks and poses for. When *Life* Magazine photographers visited the Monticello hotel where Wilt was bellhopping and playing basketball the summer before last, they got a cold shoulder from the young star.

What with all the attention given him by professionals, it is only natural that Wilt realizes his worth in dollars and cents. And he does. He is well aware that Abe Saperstein, owner of the Harlem Globe Trotters, is dying to get him for his troupe. So while a curtailment of his collegiate career might be the end of the world for Kansas, it would be the beginning of new and, theoretically, more prosperous days for Wilt.

Since the last rhubarb began, there has been some wondering about how it will all affect Wilt's playing. Those who've seen him say he's the same beautiful machine. Fast and graceful, Wilt is always in command on the court. He has an excellent jump shot, both one and two handed, and can go as high in the air as Bill Russell, San Francisco U and Olympic ace. He is a far better shot than Russell and is more experienced in position play than Russell ever was. Now weighing 230 pounds and armed with an authoritative set of elbows, he has all the physical equipment he needs to stand up under the pounding he is sure to take in every game. He can leap as high as 12 feet, six inches (the basket is 10 feet off the floor.) All in all, he is already an offensive threat Russell will never be.

Any ideas about Wilt having trouble getting used to varsity ball went out the window in Kansas's first game against Northwestern in early December. All Wilt did was throw in 52 points, for a new Kansas individual scoring record, as the Jayhawkers won 87-69. Playing all but 31 seconds of the game, he scored 20 field goals on 29 attempts. Northwestern's center, 6 ft.-9 incher Joe Rucklick, tried crowding Wilt and had to leave the game on fouls early in the third period. Rucklick did score 22 points on Wilt who played cautiously at first. Later in the game he became more aggressive but picked up only two personal fouls.

After the game Northwestern's coach Waldo Fisher said, "He's probably the toughest guy I've ever seen to stop when he's got the ball." Then he added. "They're going to do a lot of things to try and stop him, but I don't know how you can do it without fouling."

No one will argue with Coach Fisher on that score. It will be almost impossible to stop Chamberlain on the floor. But the off-the-court attempts to stop him will probably be even more interesting than the various game strategies the coaches will devise.

Despite all his talents, it seems doubtful that Wilt will ever hit the collegiate heights that Bill Russell and lesser players attained. And the main reason he won't—ironically enough—is because those very talents will bring about added pressure that will finally make his position at Kansas untenable. Perhaps he will leave before the pressure builds to an explosion. Perhaps he'll stay long enough to be part of basketball's biggest story. No one can be sure.

But of one thing in the uncertain world of collegiate athletics, everyone can be sure—Wilt Chamberlain will be the hottest and most scrutinized college basketball player in history in the year 1957. •

- *World-Wide Service*
- *Personal Training*
- *Local Assistance*

If now employed
you can profitably operate in spare time and build a permanent full-time business

OWN a Nationally Advertised LIFETIME BUSINESS!

. . that GROWS from Repeat orders

Start Part or Full Time

Easy to Learn . . . No Shop Needed

We are NOW enlarging this 27 year old, world-wide chain of individually owned service businesses. If you are dependable, honest and willing to work to become financially independent, we invite you to mail the coupon below.

You become a fabric specialist . . . providing the proper care to upholstery and floor coverings. No experience needed. We personally train you.

$9.00 an Hour Gross Profit

Here is your opportunity to BE YOUR OWN BOSS . . . to become financially independent in your own Nationally Advertised cleaning and mothproofing business. It grows from REPEAT and VOLUNTARY orders. Alert dealers can average $9.00 hourly gross profit on service they render plus $3.00 on EACH of their servicemen.

Some dealers establish a shop or an office . . . many operate from their own home with NO OVERHEAD expense. Equipment is portable . . . the electric Foamovator converts to a carrying case.

At the start, you may want to render service yourself. This business is easy to learn and quickly established. Women as well as men can qualify.

A Waiting Market

Your services are rendered "on location" in homes, office buildings, hotels, theaters, churches, clubs and institutions. Auto dealers buy your services to revive upholstery in used cars. Almost every building houses a potential customer. The unlimited market (even in small towns) permits a Duraclean partnership to grow . . . increasing YOUR PROFITS year after year.

FIRST PROCESS IN THE FIELD TO WIN THIS IMPORTANT HONOR!

As a Duraclean dealer, your services are now backed by this famous seal of quality . . . proof that Duraclean has passed the most rigorous tests. No competitor in your town can boast this seal. Customers will also see that your service has been tested and certified by the American Research & Testing Laboratories. No wonder it's so easy to get business!

Customers Sell for YOU

Duraclean dealers find Repeat and Voluntary orders become a major source of income. Customers tell friends and neighbors. Furniture stores, interior decorators, department stores recommend Duraclean dealer service to their customers.

You enjoy a large profit margin on BOTH materials and labor. These are year 'round services with a constant demand.

We Train and Assist You

We are equally interested in YOUR success. An established Duraclean dealer will train and assist you in your town. He'll reveal the successful, proven methods and sales plans. He will WORK WITH YOU.

We Help You Grow

Our MUTUAL COOPERATION program gives you many unique and continuous advantages which help create customers for you: **National Advertising** in Life, McCalls, House & Garden, Canadian Homes & Gardens and a dozen others explain the superior merits of YOUR modern service and develops customer confidence in your business. **Instruction Books** show you 27 ways to bring customers to you. **Products Insurance. Six-Year Warranty, Pocket Demonstrators, Sales Book, Advertising Folders & Cards, Ad Cuts and Mats, Radio and TV Musical Commercials.** Home Show **Booth Display. Publicity Program** gets FREE local newspaper stories. **Prizes. Laboratory** research and development. **Monthly Magazine. Annual Conventions.** Behind all this is a headquarters interested in YOUR personal success.

We'll Help Finance You

A moderate payment establishes your own business. Profits from less than a day's service each month should meet monthly payments. Men frequently take in partners.

We furnish electric machines, folders, store cards, introduction slips, sales book, demonstrators and enough material to return your TOTAL investment. If you have good habits, and appreciate the importance of customer satisfaction, you can likely qualify for a Duraclean dealership.

It is surprisingly easy to learn this business and you can decide from the information we will send you whether you will want to apply for a dealership. You can have your business operating in a very few days . . . so mail the coupon TODAY.

You Become an Expert

CLEANING AND MOTHPROOFING RUGS, CARPETS AND UPHOLSTERY

● **Duraclean and Duraproof are year 'round services rendered in homes, hotels and public buildings** ●

Duraclean (illustrated above) not only cleans, it enlivens fabrics and carpets . . . revives dulled colors . . . restores NEW appearance. Rug pile again stands erect. You Duraclean "in the home." Furnishings are used again a few hours later . . . a great convenience to customers.

No machine scrubbing or soaking . . . Duraclean cleans by **absorption.** It eliminates shrinkage and does away with harmful solvents and strong soaps. Mild aerated foam cleans while restoring resilience. Dirt, grease and many unsightly spots vanish, like magic. Furnishings become clean, fresh, enlivened.

Duraproof (right) protects carpets, upholstery, furs, clothing and auto interiors from moths and carpet beetles. U. S. Government says, "Moths are present in practically every household."

Duraproof is the only such service backed by an International Money-Back, 6 YEAR WARRANTY.

NEW! A *THIRD* SERVICE

In a recent laboratory development, a new soil-retarding treatment called Durashield has just been perfected. You can be first in your town to offer this remarkable treatment that KEEPS furnishings cleaner for months. People MUST order this through Duraclean dealers only. It gives you a THIRD profit-making service.

Mail Coupon NOW! No Obligation

Mail coupon TODAY. Territories are limited! Our first letter and FREE illustrated booklet explain everything . . . these modern services, the waiting market, how business grows, your large profits, easy terms and territory protection.

Here is What Established Duraclean Dealers Say:

Earl Davis: "Our sales increased $17,660.00 this year over last."

L. B. Hayes: "It was my lucky day when I received my dealership. During my first month I grossed $770.17. Duraclean has proved so popular, I am now a full time dealer."

W. Abbott: "In the past 7 months I have taken in over $12,000, almost entirely on cleaning the interiors of automobiles."

Arils Wilson, "This month, working alone, I grossed $1,299.10."

M. Lassanske: "My original investment was returned in about two months."

P. Freidinger: "70% of our business is repeat . . . also get business from reference of satisfied customers."

L. Johnson: "Every customer leads to 3 or 4 more."

W. Lookiebill: "We've had 20 years of pleasant dealings. I'm 65 but am setting my sight for 20 more years."

Gerald Merriman: "Made $700 cleaning with only 13 working days."

Send for FREE Booklet TODAY!

"OWN a Business" Coupon

DURACLEAN COMPANY
7-683 Duraclean Bldg., Deerfield, Illinois

WITHOUT OBLIGATION, write me how I may enjoy a steadily increasing life income in my OWN business. Enclose FREE booklet and full details.

Name .....
(Please Print)

Address .....

City ..... State .....

Duraclean® Company, 7-683 Duraclean Bldg., Deerfield, Illinois

We'll send YOU a Money-Making "Shoe Store" Business FREE!

Just 8 easy orders a day bring you up to $960 a month!

RUSH COUPON FOR FREE BUSINESS OUTFIT!

Here's an exciting business for the man who wants to make money with a product he can sell to EVERYBODY...who wants steady cash profits EVERY MONTH...easy REPEAT SALES to the same customers...a BIG INCOME supplemented by monthly BONUS CHECKS and exciting PRIZES! We'll set you up in a profitable Mason "Shoe Store" business at **our** expense. You need no previous experience...you don't have to invest a cent! James Kelly of Ohio took so many orders for these Nationally-Advertised shoes he made $93.55 in ONE evening! Fred Mapes makes $5 to $10 every hour he devotes to his Mason Shoe business!

It's **easy** with our way of selling shoes. We set you up in a complete "shoe store" business you can run from your home. **We** carry the stock and ship the shoes. All you do is show the styles to your family, friends, people where you work, etc....and take orders. You have a profitable business with no rent, light bill, clerk hire or other costs to worry you. **You keep 100% of your profit!**

Here's why you'll make money!

● You offer **170** comfortable fast-selling styles...far more than a store! ● You have an amazing range of **sizes (2½ to 14)** and **widths (AAAA to EEEE)**. Even hard-to-fit people can buy from you! ● Because we carry over 200,000 pairs in stock, your customers get **exactly** what they want ...no misfits or substitutions! ● You feature exclusive Velvet-eez shoes with foamy-soft **air-cushion innersoles** that let you "walk on air." Built for supreme comfort, Mason shoes also feature built-in strong steel shanks, Air-Cushion longitudinal support, Nylon stitching. Advertised in Esquire, Good Housekeeping and on TV, they'll be available **only** from **you**—not sold in stores! ● You save your customers money, and the time they would waste "shopping around" shoe stores.

Take Orders For Over 170 Dress-Sport-Work Shoe Styles!

30 kinds of work shoes! A style for every trade! Special Neoprene, Cork, Cushion soles, heels...ventilated work shoes...even Safety Toe Shoes!

Smart dress, sport styles! The last word in styling! Many fine, unusual leathers. Cool Nylon Mesh styles, moccasins, 2-tones and Cush-N-Crepe soled shoes!

70 Styles for Women! Satisfy almost every taste! Many comfort features. Low-heeled, high-heeled, casuals, service shoes, latest styles!

No wonder you'll have the biggest and best "shoe store" business in town!

MASON SHOE MFG. CO.
Dept. 540, Chippewa Falls, Wisconsin
Since 1904

You'll get a Starting Kit *FREE!*

As soon as we receive the coupon below we'll send you a complete Business Outfit **FREE and postpaid!** It features the entire Mason Collection in full color; contains 10-second Air Cushion demonstrator, valuable Booklet chock full of how-to-make-money hints, special Measuring Board, advertising reprints...everything else you need to start making cash profits from the first hour! We'll also show you how to earn monthly **Bonus Checks** and win costly prizes **Free!**

Mason Shoes will be available ONLY from You!

Because Mason Shoes are not sold in stores, you get **repeat** orders from delighted customers almost automatically! Steady cash profits every month! Since everyone you know wears shoes...**EVERYBODY IS A PROSPECT!** No wonder this is the perfect business for you: a quality product everybody needs...backed by the famous Good Housekeeping Guarantee Seal...one you can take orders for 12 months of the year. Want to see how much money **you** can make? For a 2¢ postcard you can try it NOW ...start your exciting business **right away!**

RUSH THIS STAMP FOR YOUR *FREE BUSINESS OUTFIT!*

Mr. Ned Mason, Vice President
Mason Shoe Mfg. Co., Dept. 540
Chippewa Falls, Wisconsin

Yes, I'd like up to $960 a month for just 8 orders a day...and MORE! Please start me in an exciting "Shoe Store" business by rushing my Complete Shoe Business Outfit FREE and postpaid so I can start making money my first hour!

Name_____

Address_____

Town_____ State_____