People usually underestimate the braking distance of a car because they assume that if the speed is doubled, the braking will also be doubled. But braking distance increases as the square of the speed. So actually if you are going along at 20 miles an hour and can stop within 30 feet, then speed up to 40, your braking distance will be four times as great or 120 feet. If your speed is three times as great, or 60 miles an hour, your braking distance will be increased nine times to 270 feet.

Several very exact instruments for measuring actual stopping distances have been developed by the Traffic Engineering and Safety Department of the American Automobile Association. Designed to be suspended from the car, they ride about six inches above the ground. Blank cartridges force a piece of chalk onto the pavement, permanently marking the point where the signal to stop is given, the brakes applied and so on.

Gadgets for Indoor Use

Other gadgets, designed for indoor use, also give a pretty good indication of your driving ability. Some, using automobile parts, measure how well your eyes, hand and foot coordinate. Others present actual traffic hazards in miniature on a small-scale road and record how well you avoid them by indoor driving.

But even if you react promptly, the "grip" of your tires may not be too effec-

tive on the road surface. Or the weather may be working against you. Skid marks are mute witnesses to the distance a car slides on a wet pavement, mud or snow. Even at only 35 miles per hour a car will skid nearly a hundred feet on wet concrete. So watch your speed, the one factor over which you have greatest control.

Arrange Own Demonstration

Following the suggestions in this article, you can take the lead in arranging a safety demonstration in your community, perhaps in cooperation with your local newspaper.

A detonator for showing delayed stopping time can probably be borrowed from your local AAA Club, progressive truck fleet company, high school offering driving instruction or police department. Advance practice will help your program go off smoothly.

Select a straight stretch of road that can be blocked off easily by arrangement with and under direction of the local police. For participants in the test, pick a high school boy and girl who have recently learned to drive, several adults of varying temperament, a fleet or other professional driver, and one or two older people. To avoid embarrassment, however, be sure to explain in advance to the older volunteers that the test may show them a little slow in reacting.

Test reactions when alerted and when not primed for the "stop" signal to show how slow drivers often are in becoming aware of danger. Arrange for those watching the show to test their own stopping distances if they wish. The local fire department will probably be glad to wet the road for skidding demonstrations. Others also would undoubtedly like to cooperate in such a highway safety demonstration.

Science News Letter, February 14, 1953

ICHTHYOLOGY

Large Shark Caught 2,300 Miles From Sea

➤ A SIX-FOOT shark has been captured 2,300 miles from the ocean, in the Peruvian headwaters of the Amazon river, reports Dr. George S. Myers, ichthyologist of Stanford University, Calif.

Dr. Myers said he learned about the rivergoing shark from Senor Felipe Ancieta of the Peruvian fish and game department, who sent him a picture of the shark which was caught near Iquitos, 2,300 miles from the Atlantic Ocean. The shark belongs to the genus Carcharhinus, the ground sharks, Dr. Myers said.

While sharks are known to travel some distances up rivers, this is the first authentic record of a shark from so deep in the Amazon, Dr. Myers said. Several unverified reports had previously mentioned sharks as far up the river as Manaus, Brazil, 1,000 miles from the coast.

Science News Letter, February 14, 1953

Now, You Can Stop Saying

"I Always Spend Too Much on My Vacation"

No matter what kind of vacation you want this year or next or where you want to go, Norman D. Ford, founder of the world-famous Globe Trotters Club, can tell you exactly

-where to go-what to see-what to wear, take, and tip

and how to have the best vacation of your life and do it all for less money.

WHERE TO GO FOR A HAPPY VACATION

In his new book, Where to Vacation on a Shoestring, Norman Ford shows where to get real vacation bargains from one end of America to the other, from Florida to California, and he doesn't forget Canada, Mexico, Hawaii, Cuba, and other favorite vacation spots. He names the most delightful places to spend a day, a weekend, or your entire vacation. He doesn't expect you to spend a lot, so he tells you all the many things you can do within your budget and how to stretch that budget.

HOW TO GET THERE - SEEING MORE, SPENDING LESS

No matter how you want to reach your vacation spot or if you want to spend your entire vacation touring, Norman Ford draws upon his long experience and the advice given him by thousands of travelers, so that you can save, while enjoying yourself more, whether you go by auto, plane, rail, or ship. On auto travel alone, his simple ways to cut costs can save most automobile parties \$6 or \$7 a day.

WHAT TO DO WHEN YOU GET THERE

Whether you want to spend a weekend at Jones Beach or a full week in Los Angeles or other big cities; whether you want to tour the national parks or take in the magnificent Colorado Rockies or swim in the unbelievably warm waters off Nova Scotia, that Canadian paradies of low cost vacations—no matter what you want to do, you can find hundreds of ideas in this book for enjoying yourself more and filling your entire vacation with a round of fun.

HUNDREDS OF OTHER IDEAS FOR A VACATION THAT WILL REALLY BE SOMETHING TO REMEMBER

There's a whole chapter, too, on the unknown vacation wonderlands almost at your front door. There's all you want to know about low cost sailing ship cruises, about fantastically low cost mountain vacations, and many another idea to give you a wider choice in this year's vacation. To top it all, you'll find its detailed chart on whom to tip and how much to tip just the final touch to smooth your vacation, and make you feel this year's was the best you ever had.

Whether you want to spend \$100, \$200, \$300 or more this year on your vacation, you want Norman Ford's Where to Vacation on a Shoestring. It's a big book, with well over 125,000 words, and it's a bargain in itself, especially as it will help you get a better vacation and save you many times its cost.

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