

Secrets of Success

STORIES THAT WILL HELP YOU GET AHEAD

Come to Los Angeles
4 full courses
 at price of single course



LEARN
TELEVISION-RADIO
ELECTRICITY-TALKING PICTURES
 and **BROADCASTING**

Earn BETTER PAY in these active Trades. Biggest opportunities. We train you in four big trades; award life scholarship; Employment Service helps you get a job. Individual, practical instruction. Largest and oldest trade school in West. 27 years of success in training men. More than 25,000 graduates. No dummy equipment.

RAILROAD FARE ALLOWED

We will allow you coach railroad fare to Los Angeles from any point in U. S. Will help you get a job to pay living expenses while learning. A few months of training qualifies you in these four active trades. Spend glorious winter in Los Angeles and enjoy countless pleasures while training. If interested, send coupon for free detailed information.

Free Employment Service

NATIONAL
RADIO & ELECTRICAL SCHOOL,

Including Television, Talking Pictures and Broadcasting.
 Dept. 127-E, 4006 S. Figueroa St., Los Angeles, Cal.

Name
 Address
 Town State

For first time in history, National offers complete training in Radio, Electricity, Television, Talking Pictures and Broadcasting—all at tuition fee of single course. Four Courses for price of one! Bargain offer for limited time.



ELECTRICITY



TELEVISION



TALKING PICTURES

How To Secure A Government Position

Why worry about strikes, layoffs, hard times? Train now for a Government job in the future! Increased salaries, steady work, travel, good pay. Open to citizens 18 to 50. Let me help you become a Railway Postal Clerk, Post Office Clerk, City Mail Carrier, Rural Carrier,—or help you get into any other Government job you want. I was a Secretary Examiner of Civil Service Commission for 8 years. Have helped thousands.



Now FREE My 32-page book tells about the jobs open and how I can help you get one. Send the coupon for your copy today.
 A. T. PATTERSON, Civil Service Expert,
 PATTERSON SCHOOL, 1612 Wisner Bldg., Rochester, N. Y.
 Please send me, without obligation, your free book, "How to Secure a Government Position."
 Name
 Address

MAIL FOR FREE INFORMATION

BEDFORD
Y M C A
TRADE
SCHOOL

1115 Bedford Ave., Dept. PS-12
 Brooklyn, N. Y.
 Send me without obligation complete information on (check subjects).
 Caterpillar Tractor Mechanic
 Aviation Mechanic
 Talking Picture Operator
 Welding
 Auto Mechanic
 Radio and Television Mechanic
 Electrical

Name
 Street & No.
 Town State

HIS DESIRE TO KNOW "MADE" GUS WILSON

HE'S NOT famous, but every reader of POPULAR SCIENCE MONTHLY knows him well. You need no introduction to Gus Wilson, Proprietor of The Model Garage. For many years he has been giving the readers of this magazine the benefit of his experience as an auto mechanic.

What you don't know about Gus Wilson is his history, the story of the steps he took from early manhood up the ladder of success. This little biography is a simple one, and its chief value to young men looking for a future lies in the fact that Gus Wilson is not a famous man, not a great personality, or a public idol. He's an average citizen—just as we all are. His one outstanding characteristic is his desire to learn. Although Gus knows his job from A to Z, he's smart enough to realize that he still doesn't know everything. Consequently he finds himself learning something new every day and that's what keeps him up where he is.

Let's begin at the beginning. Gus Wilson (we've given our word not to print his real name) literally grew up with the automotive industry. While Duryea tinkered with his first gasoline buggy, Gus Wilson, then a young man, was investigating and overhauling those ancient little steam cars that used to stop at every horse trough so that the driver, by means of a hand pump and a length of hose, sucked gallons and gallons of water into the tank.

When electric hansom groaned their slow way over the streets of New York, Gus was giving first aid to batteries and sandpapering the commutators of many a motor. Somewhat later, the huge one cylinder engine of an old Northern run-about (remember that car?) kicked back on Gus and broke several wrist bones. His wrist is still a little stiff.

SINCE then Gus has worked on almost every type of automobile ever made. Every chance he got, every spare hour he could snatch, was devoted to learning more about the queer kinks and odd points of an automobile. He studied to become a qualified mechanic, learned machine shop practice and automotive electricity. He wanted to know automobiles, know them so well that no car trouble would ever stump him—and he does.

Over that long stretch, Gus had been saving steadily, and with a purpose. The day one of his bosses decided to get out of the garage business, Gus stepped in and bought out his partnership. Today, his garage, located in New England, lives up to its name. It is a model of efficiency in service and of honesty in operation. Now, in addition to service and repair work, Gus has the sales (Continued on page 100)

Free-MENTAL ANALYSIS

... reveals your hidden powers—shows what is holding you back—how to forge ahead!

Thousands have discovered amazing new powers to achieve with aid of this 68-page book, "Scientific Mind-Training." Makes a scientific check-up of your mental forces and handicaps—reveals unsuspected powers now dormant within you. Also gives complete outline of Pelman system for training ALL mental faculties. Make this SELF-revealing analysis—discover YOUR real powers! For free copy send postcard or tear out this notice, write your name, address in margin, mail AT ONCE to:
 PELMAN INSTITUTE, (Suite 87-12) 271 North Ave., New Rochelle, N. Y.

Choose as Your Profession ELECTRICAL ENGINEERING

You will find greatest opportunities, most tempting inducements and largest rewards for achievement in ELECTRICITY. Our famous "Unit System" of training enables you to reach definite goal quickly. Each three month term a complete unit. You advance according to your ability.
YOU STUDY ELECTRICITY RIGHT FROM THE START—with the personal help of engineers and specialists—do actual work on regulation electrical equipment. Accredited School of Engineering requires high school diploma for degree course only. Non-high school graduates can make up credits in 6 additional months. Commercial Electrical Engineer in 1 year. Intensive 3 and 6 months' courses increase your earning power in fascinating, growing fields of Radio, Television, Talking Pictures and Electrical Refrigeration. Get started as soon as possible. Send this ad for FREE BULLETIN and details of "Earn While Learning" Plan. Mention age, education and course interested in.
MILWAUKEE SCHOOL OF ENGINEERING
 Dept. PS 1232 Milwaukee, Wis.



B. S. DEGREE IN 3 YEARS

Photography for PLEASURE or PROFIT

A fascinating hobby or a profitable business can now be yours. Prepare quickly at home under the personal guidance of leading experts in the fine art of photography. No experience necessary. Full or spare time. Many earn while learning. Our thorough study method also qualifies you to fill a well paying position upon graduation. Send coupon below at once for FREE booklet, Opportunities in Modern Photography.

AMERICAN SCHOOL OF PHOTOGRAPHY
 3601 Michigan Avenue Dept. 2369 Chicago, Ill.
 Send booklet, Opportunities in Modern Photography, and full information.
 Name
 Address
 City State

BECOME AN EXPERT ACCOUNTANT

Executive Accountants and C. P. A.'s earn \$3,000 to \$15,000 a year. Thousands more are needed. We train you thoroughly at home in spare time for C. P. A. examinations or executive accounting positions. Previous bookkeeping knowledge or experience unnecessary. Training given by C. P. A.'s. Write for free book, "Accountancy, the Profession That Pays," and learn about opportunities in this growing, profitable field.

LaSalle Extension University, Dept. 1283-H, Chicago
 The School That Has Trained Over 1,100 C. P. A.'s

TRI-STATE COLLEGE
 DEGREE IN 2 YEARS
 B.S. Degree in Civil, Electrical, Mechanical, Chemical, Aeronautical Engineering in 2 years. Those who lack high school may make up work. Living costs, tuition low. Students from all over the world. Write for catalog.
 School of Engineering 49th Year \$122 College Ave., Angola, Ind.

STRING YOUR OWN RACQUET
 Same Quality String As in Expensive Racquets Outfit Complete with string, tools and directions \$1.65
 Easy to restring racquets—better than new. Saves real money. Send for this professional outfit today. Good profits made restringing other players' racquets, 37 ft. string. Colors Purple, Green, Red or White, with length of contrasting color in all cord trim, awls, illustrated easy directions. Money back guarantee.
MAKE MONEY! Send check or Money Order \$1.65 which includes Postage and Insurance. Sent TOO ■ C. O. D. if desired.
PRO TENNIS STRING CO., Dept. Y, Harmon, N. Y.



**TIME ALWAYS MOVES FORWARD
—SO DO MEN WHO MAKE THE MOST
OF IT! THIS COUPON IS AN INVITATION
AND CHALLENGE TO MEN WHO ARE
NOT SATISFIED TO REMAIN ON THE
SAME JOBS—UNTIL THEY LOSE THEM!**

INTERNATIONAL CORRESPONDENCE SCHOOLS

"The Universal University" Box 7628-G, Scranton, Penna.
Without cost or obligation, please send me a copy of your booklet, "Who Wins and Why," and full particulars about the subject before which I have marked X:

- | TECHNICAL AND INDUSTRIAL COURSES | |
|--|---|
| <input type="checkbox"/> Architect | <input type="checkbox"/> Bridge Engineer |
| <input type="checkbox"/> Architectural Draftsman | <input type="checkbox"/> Automobile Work |
| <input type="checkbox"/> Building Estimating | <input type="checkbox"/> Plumbing <input type="checkbox"/> Steam Fitting |
| <input type="checkbox"/> Wood Millworking | <input type="checkbox"/> Heating <input type="checkbox"/> Ventilation |
| <input type="checkbox"/> Concrete Builder | <input type="checkbox"/> Sanitary Engineer |
| <input type="checkbox"/> Contractor and Builder | <input type="checkbox"/> Sheet Metal Worker |
| <input type="checkbox"/> Structural Draftsman | <input type="checkbox"/> Steam Engineer |
| <input type="checkbox"/> Structural Engineer | <input type="checkbox"/> Marine Engineer |
| <input type="checkbox"/> Electrical Engineer | <input type="checkbox"/> Refrigeration |
| <input type="checkbox"/> Electric Wiring | <input type="checkbox"/> R. R. Locomotives |
| <input type="checkbox"/> Electric Lighting | <input type="checkbox"/> Air Brakes |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Train Operation |
| <input type="checkbox"/> Telegraph Engineer | <input type="checkbox"/> R. R. Section Foreman |
| <input type="checkbox"/> Telephone Work | <input type="checkbox"/> R. R. Bridge and Building Foreman |
| <input type="checkbox"/> Mechanical Engineer | <input type="checkbox"/> Chemistry <input type="checkbox"/> Pharmacy |
| <input type="checkbox"/> Mechanical Draftsman | <input type="checkbox"/> Coal Mining Engineer |
| <input type="checkbox"/> Patternmaker <input type="checkbox"/> Machinist | <input type="checkbox"/> Navigation |
| <input type="checkbox"/> Reading Shop Blueprints | <input type="checkbox"/> Agriculture |
| <input type="checkbox"/> Civil Engineer | <input type="checkbox"/> Textile Overseer or Supt. |
| <input type="checkbox"/> Highway Engineering | <input type="checkbox"/> Cotton Manufacturing |
| <input type="checkbox"/> Surveying and Mapping | <input type="checkbox"/> Woolen Manufacturing |
| <input type="checkbox"/> Gas Engines <input type="checkbox"/> Toolmaker | <input type="checkbox"/> Fruit Growing <input type="checkbox"/> Radio |
| <input type="checkbox"/> Diesel Engines | <input type="checkbox"/> Poultry Farming |
| <input type="checkbox"/> Aviation Engines | |
| BUSINESS TRAINING COURSES | |
| <input type="checkbox"/> Business Management | <input type="checkbox"/> Advertising |
| <input type="checkbox"/> Industrial Management | <input type="checkbox"/> Business Correspondence |
| <input type="checkbox"/> Personnel Management | <input type="checkbox"/> Lettering Show Cards |
| <input type="checkbox"/> Traffic Management | <input type="checkbox"/> Stenography and Typing |
| <input type="checkbox"/> Cost Accountant | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Accountancy | <input type="checkbox"/> English <input type="checkbox"/> Signs |
| and C. P. A. Coaching | <input type="checkbox"/> Civil Service |
| <input type="checkbox"/> Bookkeeping | <input type="checkbox"/> Railway Mail Clerk |
| <input type="checkbox"/> Secretarial Work | <input type="checkbox"/> Mail Carrier |
| <input type="checkbox"/> Spanish <input type="checkbox"/> French | <input type="checkbox"/> Grade School Subjects |
| <input type="checkbox"/> Salesmanship | <input type="checkbox"/> High School Subjects |
| <input type="checkbox"/> Wallpaper Decorating | <input type="checkbox"/> Illustrating <input type="checkbox"/> Cartooning |
| <input type="checkbox"/> Salesmanship | <input type="checkbox"/> Lumber Dealer |

Name.....Age.....
Street Address.....
City.....State.....
Occupation.....

If you reside in Canada, send this coupon to the International Correspondence School, Canadian, Limited, Montreal, Canada

**LEARN AT WORLD'S
BEST KNOWN
AVIATION SCHOOL
at LINCOLN**

LINCOLN is recognized throughout the world for its high class training and unexcelled equipment which makes its graduates successful. We have forty foreign representatives, students in twenty-five foreign countries and in every state in the Union. Lincoln-trained men are blazing their way to success in Aviation. **Big Opportunities in Foreign Countries as well as U. S.**, especially in Central and South America. One air line with 200 transport ships, flying 170,000 miles a week, employing 90% American pilots and mechanics. Our aviation courses taught in both English and Spanish. Students taught to read and write in Spanish if they desire. **Both ground and flying school government approved.** World opportunity with big pay jobs in store for Lincoln graduates. Write for Catalog and complete information today. State your age. **LINCOLN AIRPLANE & FLYING SCHOOL** 214B Aircraft Bldg. Lincoln, Nebr.

Secrets of Success

**HIS DESIRE TO KNOW
"MADE" GUS WILSON**

(Continued from page 98)

agency for one of the best known cars on the market. In his community he has gained an enviable reputation for dependable service and square dealing. People in his town will tell you that Gus never turned out a faulty repair job.

Gus Wilson started with the automobile. For young men who want to get ahead, there are similar fields of mechanical appeal that are now in their infancy, and that offer the same broad opportunities the horseless buggy did when Gus was a lad. Television, aviation, talking pictures, air conditioning need men of Gus Wilson's caliber. And there is always plenty of room for another good auto mechanic and radio service man.

**THIS INVENTOR COULDN'T
READ AT TWENTY-ONE**

OVER 2,000 practical patented inventions to his credit, but he couldn't read decently until he was twenty-one years old! That's just one interesting side light to the amazing career of Ethan I. Dodds, next to Edison, the world's most prolific inventor.

All these patents have been taken out in the last twenty-five years, which is at the rate of one every four days or so! Yet the man who conceived them couldn't read fluently until he was twenty-one and was dismissed from a small college one week after entering. "I'm sorry, Dodds," the college president told him, "but we can't do anything for you."

The college president was probably right. His institution could not have improved upon nature, which had endowed Dodds with unusual inventive genius. When he was a barefoot boy of seven, sent home from a little red schoolhouse near New Galilee, Pennsylvania, because he could not learn his A B C's, young Ethan developed his first invention. He heard his mother complain as she rubbed her aching arms after laboriously stirring apple butter with a big wooden ladle in a copper kettle. So he hitched a miscellaneous assortment of belts and pulleys to her rocking chair, and thereafter Mother Dodds made the smoothest apple butter without rising from her favorite chair or even looking up from her knitting.

At seventeen, he left home and his father's small coal business, and went to work as a blacksmith in the Westinghouse works at Pittsburgh. Here there was no keeping his inventive mind under cover. Soon he became George Westinghouse's right hand man, and when Marconi came to Westinghouse with his first models for wireless, Dodds was assigned to help him.

For all his inventive genius, Dodds found it necessary to study, to learn mechanical and engineering principals; to eliminate (Continued on page 101)

**CARTOON YOUR WAY
TO SUCCESS!**

DON'T COPY - LEARN TO ORIGINATE!
RAYE BURNS will teach you HOW TO CREATE ORIGINAL CARTOONS at home that you can SELL! Course has 26 lessons and 600 illustrations. Send name and address for free details. Only... **\$2.85**
RAYE BURNS SCHOOL, Dept. S-X, Box 2194, Cleveland, Ohio

ELECTRICAL ENGINEERING
A CONCISE, comprehensive course for men of limited time, complete in one year. Mathematics, engineering drawing, shop-work. Students construct motors, install wiring, test electrical machinery. Modern buildings. 39 years' successful experience. Catalog on request.
BLISS ELECTRICAL SCHOOL
112 Takoma Ave., Washington, D. C.

Learn Advertising at Home
Make money in advertising. Prepare quickly during spare time. Also earn while you learn. No experience necessary. New easy method. Nothing else like it. Send at once for free booklet—"Win Success in Advertising", and full particulars. No obligation.
Fudge-Davis School of Advertising
3601 Michigan Ave., Dept. 1369, Chicago, U. S. A.

MAKE MORE MONEY IN PHOTOGRAPHY
Learn quickly in your own home at low cost. Same practical training, given by same expert instructors who handle personal attendance coaching in our completely equipped studios. Only home-study training offering this advantage. You may earn while learning. FREE placement service. BOOKLET, NO COST.
 Still Photography (Commercial, News, Portrait) and Photo-Finishing
 Motion Picture Photography and Projection
NEW YORK INSTITUTE OF PHOTOGRAPHY
10 W. 33rd Dept. 5 M New York

REAL JOBS OPEN
For Trained Auto Mechanics
Step into big pay. Earn \$35 to \$70 a week. I train you in only 8 weeks at largest school of its kind in world. New practical shop plan. Learn with real tools... on real equipment. Write quick for Big Free Auto Book and Special Low Tuition offer. No obligation. Add. **FREE BOOK**
J. H. McSweeney.
McSWEENEY SCHOOL Dept. A-6-12
Cleveland, Ohio

Want a Big-Pay Broadcasting Job?
If you have talent here's your chance to get into Broadcasting. New Floyd Gibbons method trains you for the job you want. You learn at home in spare time. Fascinating course fully explained in Free Booklet. "How to Find Your Place in Broadcasting." Send for your copy today. Floyd Gibbons School of Broadcasting, 2000-14th St., Dept. 2551, Washington, D. C.

CRIME DETECTION SECRET SERVICE BOOK FREE
For 30 Days Reading—No Money Down
Actual Crime Cases—If You Act Quick!
We will send you this stirring book on Crime Detection, Secret Service and Identification Work for 30 days free reading. Send no money. If you decide to keep it, then send me only \$1. If not, return it. WRITE TODAY. Not sent to boys under 17 years of age.
T. G. Cooke, Book Dept. 13-69 1920 Sunnyside Ave., Chicago, Ill.

High School Course in 2 Years
You can complete this simplified High School Course at home inside of two years. Meets all requirements for entrance to college and the leading professions. This and thirty-six other practical courses are described in our Free Bulletin. Send for it TODAY.
AMERICAN SCHOOL
Dept. H-948 Drexel Av. & 68th St. C.A.S. 1923 CHICAGO

EARN UP TO \$25 A WEEK, OR MORE
THIS BOOK FREE
Grow Mushrooms in your cellar or shed. Big demand. Experience unnecessary—we tell you how. Illustrated book free. Start NOW—write today.
MAKE MONEY at HOME!
AMERICAN Mushroom Industries, Ltd.
Dept. 307 Toronto, Ont.