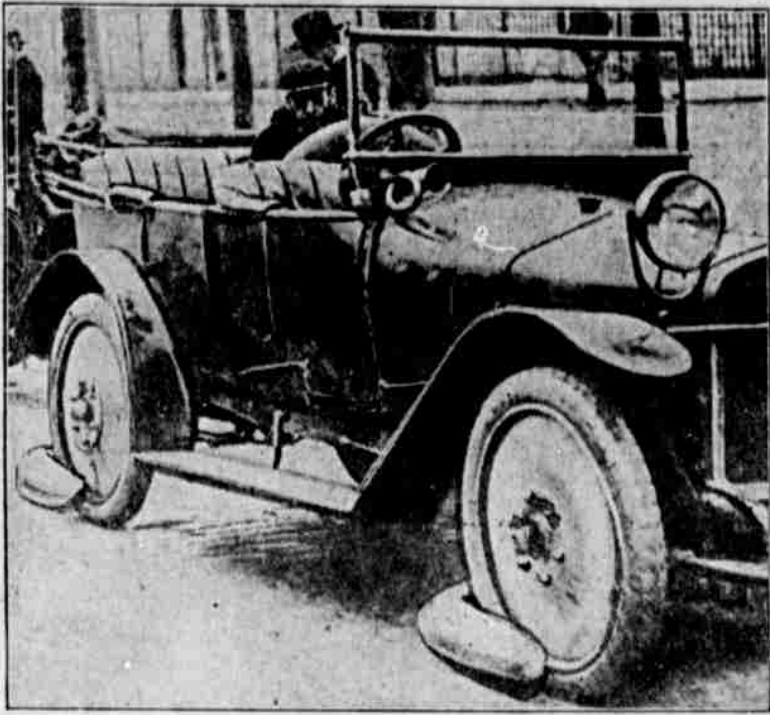


## SUGGESTIONS FOR OUR MOTORISTS



An anti-splash guard for automobiles was successfully tested in Paris recently. The photograph shows the guards attached to the wheels of a car. They are designed to protect the public from a mud bath on rainy days.

## REAR TIRE WILL SHOW HARD WEAR

Severe Strain Can Be Reduced by Changing About From Time to Time.

## PUNCTURE TROUBLE IS LESS

Time, Labor and Money Can Be Saved to Owner of Car by Following Out Rotation System Which Has Been Well Tested.

If he will change tires around in the manner described below, a motorist can make them last far beyond the usual mileage. This is done by reducing the strain on the tires as they wear away so that the newest tire is placed at the point of greatest strain and the oldest one at the point where the strain is least.

It is evident, even to a casual observer, that the rear tires wear out more rapidly than those of the front wheels. This is due to the strain of driving through the rear wheels, letting in the clutch, applying the brakes, use of chains, skidding and so on. Now comparing the right side of the car with the left, the tires on the right wheels will wear faster. The left wheels run along the smooth part of the road where the ridges and ruts are all beaten down by the traffic. But near the edge the road is rough, there are more ruts and small stones, and



Changing the Tires According to the System Here Explained Will Mean a Saving.

sometimes these wheels must leave the road altogether. There is more likelihood of meeting broken glass, metal, and other objects on this side. Then there is more weight on these wheels because the car is tipped more to that side on account of the crown of the road. Therefore it may be stated as a general principle that the rear tires wear more than the front ones and the right ones more than the left.

Starting with all new tires it will be evident that the right rear tire will show serious wear long before the left front tire has got over its newness. At this point the two should be exchanged. It is difficult to state just when this change should take place; possibly it is best left to the discretion of a driver. If a "non-skid" is used, the change should be made before the tread is worn so smooth as to lose its protective feature. At the same time the other two tires should be exchanged, to keep matters even.

After a few thousand miles more we enter the second phase. One by one the tires will wear out and not even vulcanizing can save them. They must then be moved up in the sequence shown. Supposing the left front tire is discarded, the right front tire takes its place; the left rear tire moves forward and the right rear tire takes its place. The spare tire is placed on the right rear wheel, the point of greatest strain.

Of course, if some tire is to be removed temporarily for repairs, it will be replaced by the spare tire instead of moving the rest forward, and as soon as returned it is put back in its regular position.

By following the above system you will not only make your tires last longer, but you will have less trouble

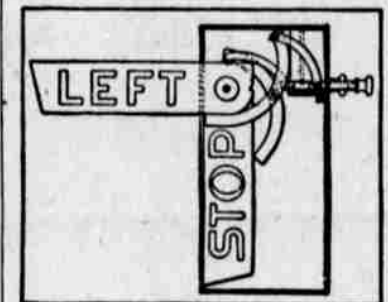
from punctures—another good reason for following this practice. The logic of the advice given by the author is unimpeachable and is based upon a careful study of the subject. Tests, extending over a period of several years, have proved beyond reasonable doubt that the rotation method suggested will actually result in a considerable saving of time, labor and money to the owner of the car.—By Robert A. Chandler in Popular Science Monthly.

## USEFUL AUTOMOBILE SIGNAL

Chauffeur Enabled to Indicate to Drivers in Rear His Intentions as to Direction.

The Scientific American in illustrating and describing an automobile signal, the invention of S. Paintmaler of Oxnard, Cal., says:

The invention relates more particularly to a signaling device which is



A View in Vertical Section Illustrating the Device.

adapted to be secured to any convenient part of an automobile and operated by the chauffeur to indicate to other cars his intention as to the manipulation of his car. An object is to provide a device employing semaphore signals with means for operating from an inclosed casing to a horizontally extended position and secure the semaphores in such position.

## AUTOMOBILE NEWS

The average motorist, it is estimated, spends more than \$10 daily while traveling.

Practically two-thirds of the states have adopted the hyphenated numerals on motor license plates.

France has adopted the motorcycle side car. The vehicle was introduced by the American expeditionary force.

Three-quarters of all families in the United States are financially in a position to own and operate automobiles.

Commercial automobiles are displacing the ox cart and the coolie in transportation of products in British Malaya.

Parking automobiles in the congested business section of Chicago is prohibited. The area covers a square mile of territory.

During the holiday season an emergency post office in the form of a motortruck was placed on the streets of Washington, D. C., to cope with the Christmas parcel-post work.

Because the loss ratio to premiums is no less than 85 per cent, insurance companies in the United States have decided to combine in an effort to check the theft of automobiles.

The Pennsylvania state National Guard will have 500 motor vehicles for various units of the division, tractors and other vehicles for howitzers of heavy artillery, bakery equipment, and trucks for trains and other purposes.

The latest development in the automobile industry is the railway motorcar, designed to replace steam locomotives on short-line railroads. The use of the internal combustion engine is said to do away with an average of three men to a train.

## Better Roads

### FILMS ON MAKING HIGHWAYS

Every Process Involved in Construction of Concrete Road is Shown in "Movie" Pictures.

Many a woman more blessed with a sense of the ridiculous than she is with tact, has remarked to Friend Husband as he climbed from underneath the car stalled on a muddy country road after a struggle with re-



A Country Road Before and After Improvement.

calcitrant machinery. "If only a movie photographer were around."

Her wish would have been gratified last summer in many places in Delaware and New Jersey, for movie operators from the United States Department of Agriculture were there filming good roads with the assistance of engineers from the bureau of public roads. The resulting picture, "Modern Concrete Road Construction," is now ready for lending to interested persons who make application for its use at "Good Roads" meetings, schools, colleges, and meetings of engineers.

Every process involved in the construction of a concrete road is shown in the film, from the heavy grading to the completed road. The picture opens with a view of an automobile stuck in the mud of an unimproved country road. After the spectator has been shown all the steps in the construction of a modern concrete road, the picture closes with a thrilling race between a railroad train and a motor-truck on a concrete highway—a feature calculated to show the possibilities of rapid transit of freight traffic on good roads, but not to encourage speeding.

## SNOW ON COUNTRY HIGHWAYS

Removal Problem of Greatest Importance Because of Greater Use of Motortrucks.

The snow removal problem is of increasing importance because of the greater use of autos and motortrucks which find it very difficult to travel through drifts and deep snow. In most states it is the duty of the county or local road officials to remove obstructions on the highways and snow drifts certainly are obstructions, says Farm and Home. Excellent advice on this matter is given by the Iowa highway commission as follows:

Just how much money can be used for this class of road maintenance is entirely up to the individual road official to decide. He must also decide whether it is necessary to keep the road open at all times for automobiles on only for team traffic. In deciding just what to do about snow removal, the character of the road and the nature and importance of the traffic to the general public must be a determining factor.

Road officials should not be stampeded in the case of heavy snows by insistent and angry demands that all roads be immediately opened for traffic. Sometimes an attempt to open all roads for immediate use by automobiles after exceptional snow storms, might cripple the county or township road funds for the entire year. It costs money and lots of it to remove snow, so the road official must use the best judgment as to just how far he can go, always keeping in mind, however, that no road should be allowed to remain entirely closed to traffic for any undue length of time.

Should Build Stronger. Now that the motortruck has been developed it is nothing less than a crime for highway engineers to design and build and spend the state's money for anything other than a substantial road. Delaware, New Jersey, Pennsylvania, Connecticut and other progressive states are realizing this fact and are building more concrete roads or roads with a concrete base.

Bumps Injure Car. Your car will last longer if the bumps in the road are eliminated.

## SCHOOL DAYS



### THE GIRL ON THE JOB

How to Succeed—How to Get Ahead—How to Make Good

By JESSIE ROBERTS

### EMPHASIS ON HEALTH

YOUR economic success is largely a matter of good health; this fact is being recognized today as it never was before. No one can do good work and be out of sorts. Any serious or prolonged illness is a drain on your earning power and an increase in your expense account.

"Keep Well" is a slogan you might just as well adopt at once, and then live up to. For very largely it is in your own hands whether or not you shall be in good health.

No woman should work at a job that is hurting her. No question of high salary will pay her for such recklessness. There are jobs a man can do with no harm, but not a woman. Let her leave such work alone.

There are rules of hygiene, as excellent as they are simple, which it is up to you to know and understand. You must be properly fed, properly rested, kept clean and unclogged.

Don't fill yourself with patent medicines. If you are ill see the best doctor you can get and do what he tells you. If you have any reason to fear that you are not in good condition go to a reputable man or to a hospital for a complete physical examination. Don't put this off because you are busy or fear the expense.

Put your emphasis on health. Don't fool with a good constitution simply because you are blessed with one. If your work is trying, treat yourself during your rest time with consideration, give the machine a chance to recuperate, or change your job.

(Copyright.)

### THE WOODS

BY DOUGLAS MALLOCH

### MARCH.

IN what a travails is our Springtime born!

'Mid leaden skies and garmenture of gloom.

Wild waves of cloud the drifting stars consume.

And shipless seas of heaven greet the morn.

The forest trees stand sad and tempest-torn.

Memorials of Summer's ended bloom;

For unto March, the sister most forlorn,

No roses come her pathway to illum.

Yet 'tis the month the Winter northward flies

With one last trumpeting of savage might.

Now stirs the earth of green that underlies

This other earth enwrapped in garb of white.

And while poor March, grown weary, droops and dies

The little Springtime opens wide its eyes.

(Copyright.)

### THE CHEERFUL CHERUB

I sat down once to write a verse—  
A feeling came too strong for me  
My little soul went soaring far,  
A leaf wind-swept by poetry.

(Copyright.)

ALL

## Mother's Cook Book

The longer on this earth we live  
And weigh the various qualities of men,  
The more we feel the high, stern-featured  
Beauty  
Of plain devotedness to duty.  
Steadfast and still, nor paid with mortal  
praise,  
But finding ample recompense  
For life's ungarlanded expense  
In work done squarely and unwearied  
days.

—James Russell Lowell.

### GOOD THINGS FOR ALL THE FAMILY.

ONE of the first essentials to a good meal is good bread of some kind. The following recipe will be found all right:

**White Oatmeal Bread.**  
Pour two cupsful of scalded milk over one cupful of rolled oats. Milk and water may be used if all milk is not economy; add a teaspoonful of salt, a tablespoonful of shortening and when lukewarm add one-third or more of a compressed yeast cake, softened with half a cupful of water. Add wheat flour to make a dough to knead and knead from five to ten minutes. Return to the mixing bowl, cover and let rise until double its bulk. Shape for two-pound loaf bread pans. When light, bake one hour. This recipe requires about five cupsful of flour.

### Lemon Honey Cakes.

Heat one cupful of honey to the boiling point; add two and one-half tablespoonsful of shortening and let cool. When cold stir in one and one-third cupsful of flour and set aside over night. When ready to bake add the grated rind of a lemon, one and one-half tablespoonsful of lemon juice, one-third of a cupful of finely chopped blanched almonds, one-third of a teaspoonful of soda dissolved in one tablespoonful of water. Beat all together thoroughly. Bake in small round cup cake pans for 20 minutes.

### Molded Rice Pudding.

Cook one-half cupful of rice in one cupful of boiling water, to which half a teaspoonful of salt has been added. When the water is absorbed add one cupful of milk and one-half cupful of raisins, one-quarter of a cupful of sugar, and cook until the rice is tender, adding more milk if needed. Fold in the beaten white of an egg and turn into a mold. Serve cold with a sauce made from one pint of milk, one teaspoonful of cornstarch, one-third of a cupful of sugar, half a teaspoonful of salt and the beaten yolk of an egg; cook the cornstarch in the milk 15 minutes before adding the egg yolk. Use the sauce when cold. Garnish with a few raisins cooked until plump in boiling water. Flavor with vanilla.

A chocolate sauce is liked by some for a rice pudding and may be served either hot or cold.

Neenie Maxwell

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### THE ROMANCE OF WORDS

#### "CAUCUS."

THIS thoroughly American word, meaning a secret conference or meeting of the leaders of a political party, is frequently encountered in reports of the activities of congress or in connection with the work carried on during the time which immediately precedes presidential elections. Moreover, "caucus" owes its origin to one of the earliest of American politicians, Henry Adams, who was very prominent in colonial political circles during the early part of the Eighteenth century.

Being desirous of controlling certain offices and of securing the appointment of men who were friendly to his interests, Adams organized a club composed for the most part of sea captains, shipwrights and other persons connected with mercantile interests. Partly to conceal the real nature of the club and partly because of the nautical atmosphere which surrounded it, the organization was known as the "Caulkers' club." Before long, rumors of its activities began to seep out and, when favorable appointments were named, people commenced to say, "That was settled by the Caulkers." As time passed the name of the club took on a more phonetic spelling and the new word, "caucus" was coined.

(Copyright.)



**HAD NOTHING ON HIM.**  
The Professor: The Vestal Virgins kept their altar fire burning constantly.

The Sophomore: That's nothing. They had a lot of 'em on the job. Last winter I kept eight furnace fires goin' all by myself and not one of 'em went out on me.