POPULAR MECHANICS AUTO TOURISTS - HANDBOOK Nº 1-

POPULAR MECHANICS PRESS CHICAGO

50°

POPULAR MECHANICS

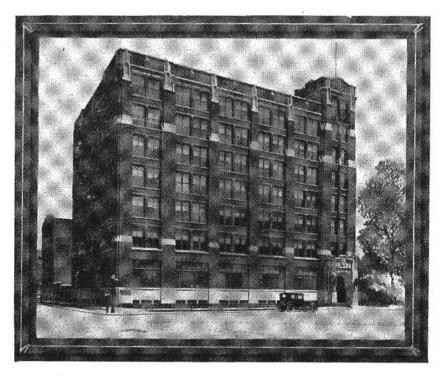
AUTOMOBILE TOURIST'S HANDBOOK No. 1

133 practical plans for making automobile touring easier, less expensive, and more enjoyable.

Every plan has been discovered by a tourist on the road and its practicability is therefore assured.

WITH 169 ILLUSTRATIONS

POPULAR MECHANICS PRESS
CHICAGO



Popular Mechanics Building

Devoted exclusively to the publishing and distributing of Popular Mechanics Magazine and books of interest to everyone. It contains presses that turn out the equal of 35,000 magazines and books each working day.

Popular Mechanics Press

Publishes books in the same clear, concise language as is used in Popular Mechanics Magazine. Books now ready for delivery that will be of value to:

Machine Operators
Shop Foremen
Machinists
Shop Owners
Factory Superintendents
Inventors
Patternmakers
Merchants
Scientists

Merchants Marine Er Scientists Teachers Vulcanizers Tool Mak

Automobile Mechanics Electricians Carpenters Photographers Draftsmen Welders Plumbers Marine Engineers Teachers Tool Makers

Contractors
Farmers
Mechanical Engineers
Railroad Mechanics
Foundry Workers
Painters and Decorators
Steam Fitters
Laboratory Workers
Sheet Metal Workers
Boys mechanically inclined

-in fact, for everyone who has the slightest mechanical instinct, including women.

All Popular Mechanics literature is "Written so you can understand it."

Complete illustrated catalog of books free upon request.

Popular Mechanics Press, Room 107 Popular Mechanics Building, Chicago, Ill.

FOREWORD

A LOT of folks have never toured because they have imagined that the bother of camping and cooking would take away a large part of the joy of the trip. This need not be if you know how to pack, how to make camp in the easiest ways, and how to make cooking along the road a pleasure instead of a drudgery.

Those folks who have contributed their experiences to this book have had real pleasure from touring. They have found ways to make touring cost about one-third of what the same trip would cost by train. Every article in this book is practical because it is contributed by someone who has actually had the experience.

Camping and touring go together when you want to avoid hotel and restaurant bills. Consequently, there are many articles here on camping. Some of them are just as useful for those who camp a long time in one place as they are for those who make a new camp every night. The feature of all camping articles is that the camps may be built in a short time and with the minimum of work and materials.

When you start on a trip, you often find that you wish to take much more luggage than you thought you would. Without some definite plan for packing this, you may have difficulty in carrying it without inconveniencing the occupants of the car. It takes away a large part of the joy of outdoor life if you have to sit in a cramped position all day in the car. The many articles on packing and luggage carriers will, therefore, be of special help.

There are more pictures than there are articles, which shows how well all instructions are illustrated. Anyone with just a little ability in handling tools can use this book as a guide for making his own touring equipment. Very few articles mentioned here need be purchased.

The most economical way to travel in a car is to have your car arranged for sleeping inside. Six or seven plans are included for accomplishing this purpose. You not only save hotel bills, but you will find it necessary to carry less equipment, it will take less time to make camp, and you will be better protected from the weather.

There is a big enough variety of plans for cooking to supply everyone with a method that will be easy and convenient.

While this book is complete in itself so far as instructions for touring are concerned, it is recommended that you carry with you Popular Mechanics Automobile Owner's Handbook to help you avoid long delays for car repairs. It is a book specially designed to help you keep your car in running order, and to make emergency repairs of all kinds. The price is 50 cents and it may be purchased from Popular Mechanics Press, Chicago, Ill.

None of the articles here described are patented. You may make them without any fear of infringing any other person's rights.

This Book Contains 133 Practical Plans for Tourists

Classified as follows:

- 26 Plans for CAMP EQUIPMENT
 - 13 Plans for STOVES AND CAMPFIRES
 - 4 Plans for COMPLETE HOMES ON WHEELS
 - 8 Plans for BEDS FOR CAR AND CAMP
 - 5 Plans for LUGGAGE CARRIERS
 - 5 Plans for TABLES FOR CAR AND CAMP
 - 4 Plans for PANTRY BOXES
 - 9 Plans for MAKING TENTS
 - 6 Plans for IMPROVING TENTS
 - 2 Plans for making PORTABLE RADIO RE-CEIVERS

- 6 Plans for REPAIRING TIRES
- 4 Plans for HANDLING TIRE CHAINS AND GETTING OUT OF MUD
- 4 Plans for CARRYING FOOD
- 5 Plans for MAKING CAMP WITHOUT TENTS
- 7 Plans for CAMP COOKING
- 3 Plans for MAKING CHAIRS AND STOOLS
- 8 Plans on MAKING CAR REPAIRS
- 5 Articles on ROADS AND LANDMARKS
- 9 Articles on MISCELLANEOUS SUB-JECTS

A complete classified index begins on page 85. It is easy to find all articles on any one subject by referring to the index.

Part I-Inexpensive Attachments for the Car

USUALLY in the spring of the year the auto owner begins to think of the joys of the open road. More and more people are using their cars for long-distance trips every year, and, while many of them depend for sleeping and eating accommodations upon the hotels and restaurants en route, many more tourists like to rely entirely upon their own resources.

For the man who owns a certain popular light automobile and who does not care to go to the trouble and expense of building a special body for his car, there are numerous ways in which he may add to his own and his fellow travelers' com-

fort, with very little expense.

The first question to decide is that of sleeping accommodations. Figs. 1 and 2 show how comfortable beds may be rigged up with a minimum of trouble.

In Fig. 1 the back of the front seat of the touring car is cut and hinged so as to fall back, thus making a bed practically the full length of the car. Cut the back, at the point indicated, with a hacksaw, holding the saw at an angle, so that it will not catch in the sheet metal. The upholstery, of course, should be carefully cut first, before any sawing is done. When the back has been cut, two pieces of wood should be cut to fit between the walls of the back, and firmly nailed to it, from each side. Before nailing, the upholstery may be tacked back into place, or if a better finished job is desired, cut a piece of leather substitute, matching the seat covering, and tack it over the exposed edges of the metal. The seat back is hinged to the seat proper, at the bottom, and, when allowed to fall back, rests on a bracket screwed to the bottom board of the rear seat. On the inner side of the front doors, two brackets are secured. upon which rests a luggage carrier and cushion; this forms the front of the bed. The luggage carrier may be built up of 1/2 by 1-in. wooden slats, somewhat similar to that shown in Fig. 2, but cut to suit the width of the car. With the illustrations given, no difficulty will be experienced by those who desire to con-

struct this type of "Pullman."

In Fig. 2, a combined bed and luggage carrier is shown. It is built up of stout wooden slats, and is made in two parts, hinged in the middle. The inner half is hinged to the running board, and, as shown in the detail drawing, both parts drop outward to form a substantial couch. Pieces of 1 by 1-in. stock, attached to the outer half, form legs for the bed when extended. A pneumatic mattress may be used with this type; this has the additional advantage of not taking up much space when packed, although, of course, this is a matter of individual preference.

A bed of this kind should only be used with a tent like that shown in Fig. 5; and for comparatively short distances, where a tent is not desired, the first type is the more suitable, as, when the side curtains are drawn tight, no tent is needed. On the other hand, a tent such as the one shown may be used to shield the tourist from sun and rain when cooking, and, besides, the bed used with the tent does not demand so much care in con-

struction.

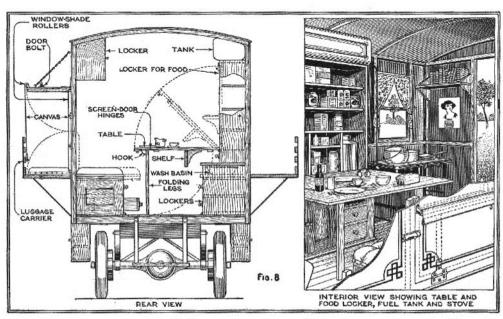
After the sleeping accommodations have been provided for, the tourist will probably turn his attention to the preparation of his food and how he will equip this important part of his outfit. First and foremost will be the question of a stove. Just what kind to use depends altogether on the "cruiser" himself, and whether or not he wants to build a fire at every stop. For those who do not, the gasoline stove in Fig. 3 is recommended. A stove of this type may be bought, but by judiciously rearranging the fuel tank of a small gasoline stove, and inclosing the whole in a metal case in the manner shown, a surprising economy in space is obtained. An alternative suggestion is the use of acetylene gas in connection with an ordinary stove burner, the two being connected by a rubber hose. To keep the stove and the cooking utensils together, as they should be, a combination table and box, such as that shown in Fig. 4, may be used. The covers of the box are hinged at the top and provided with braces for holding them horizontal when raised, a similar set of braces being provided at the bottom to prevent its being overturned. Such a table enables the tourist to keep insects from his food, which he generally cannot do when he eats with his food on the ground. By inserting partitions of the proper size in the upper part of the box he can stow all his cooking utensils so that they will be protected against damage. The underside of the hinged sides can be provided with pockets to hold various small items, such as knives, forks, and spoons. The whole arrangement, when closed, is strapped down to the running board, from which it is always readily re-

Figure 5 shows a method of using a tent over the car at night. Generally, a degree of skill that the average person does not possess is required to make a tent, and consequently no description of how such a tent should be built is given. However, any ordinary wall tent as long as the top when raised, will answer. The tent is thrown over the top of the car, and the corners guyed down in the regulation manner with or without poles. Where more than two persons make up the party a tent of some sort is an absolute essential.

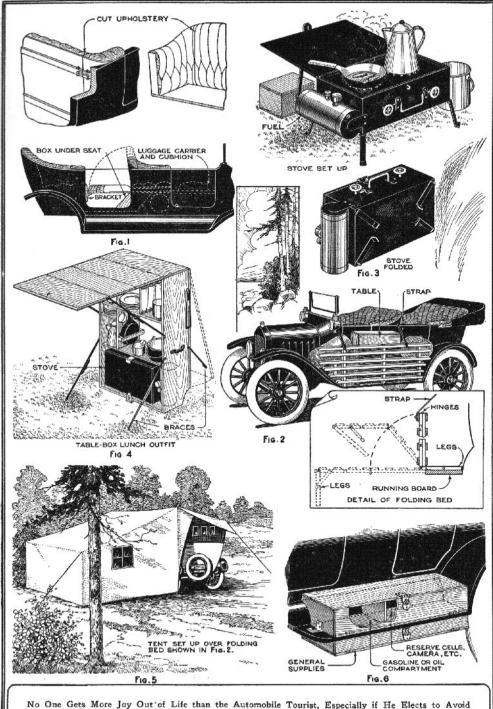
and if a trunk rack can be attached to the rear of the car it can be carried easily; at the same time, the bedding material can be wrapped up inside of it, where it is protected against dust and dampness. Various types of tents for this particular purpose are to be obtained on the market, but the seasoned tourist prefers the ordinary tent, even if it involves the necessity of carrying a set of tent poles.

There are various places about the light automobile that can be utilized for the stowage of a variety of articles, for which no provision was made by the builder. such as the box underneath the rear of the front seat in Fig. 1 and the running-board boxes in Fig. 6. Owing to its triangular shape, the box in the former drawing can best be utilized for carrying tire chains, jack, towrope, and accessories of a similar character, for which there may not be room in the tool box. The running-board boxes can be fastened either above or under the metal running board with angle irons at the ends, and form a convenient receptacle for reserve batteries, photographic supplies, emergency supplies of oil and fuel, and the like.

Coffee can be made without a fire by setting the coffeepot on a piece of lime-stone and banking sand around the lime and pot so it cannot turn over, and then pouring water on the lime. In a few minutes the coffee will be boiling.



An Alternative Arrangement of the "Cruiser" Body, More Suitable for Use in Warm Climates: In This, as in the Other Design, Space Is Conserved as Much as Possible. It Is Described on Page 6.



No One Gets More Joy Out of Life than the Automobile Tourist, Especially if He Elects to Avoid Hotels and Camps Wherever He Happens to Find Himself. Attachments That Will Enable the Owner of a Light Car to Do This Are Shown on This Page

Memorandum List for Camping and Outing Trips

Persons who occasionally take an outing or go camping will find a written list of articles needed on the trip a great saving of time and mental energy. This list should be made while making preparations, and again read shortly before the departure. It may be kept from year to year, and items added or withdrawn, as

experience teaches. Classification is desirable, under heads such as camping gear, cooking utensils, tableware, foods, supplies, etc. Each member of a party can agree to furnish certain articles, avoiding duplication. Anyone who has gone on outings and left behind some muchneeded article, will readily realize the help such a list can be, and by its use the amateur may profit from the experience of others.

Part II-The Land Cruiser

SINCE there are so many ways in which an automobile can be converted to touring purposes, and so many ideas of personal comfort and convenience to be taken into consideration, it is manifestly impossible to lay down any set rules and regulations for construction and arrangement. Much depends upon the size of the party that is making the trip; if there are not more than two, a touring-car chassis will perhaps answer, but if there are to be three or more, a truck is recommended, unless, of course, the party wants to carry tents and camp out literally.

If a touring car is to be rebuilt into a traveling dwelling, the first thing that

must be done is to strengthen the rear spring, if it is not already stiff enough, to support the additional weight of the new body, without letting it down against the axle every time the car goes over a bump in the road, and it may also be necessary to lengthen the frame by one or two feet.

Next will come the construction of a body and here

the builder gets his first opportunity to exercise his originality and ingenuity in devising new features that will add to his comfort on the road. Figure 1 illustrates a type of body that is easily built. It will be noticed that all corners are secured with body irons of various kinds and, if the owner is also the builder, he can have these made by "the village blacksmith" or buy them ready-made. Hardwood should

be used throughout and the sides covered with plywood, or heavy wallboard suitably waterproofed. Unless the owner is an experienced "hand" and has considerable skill, it would perhaps be better and ultimately more economical, to have the work done by a professional body builder. Also, for use on a popular make of light car, ready-made bodies for both passenger and truck chassis can be bought.

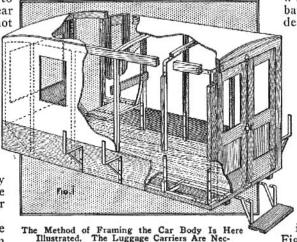
Figure 2 shows a type of automobile that is particularly pleasing in appearance, various views of its interior arrangement being shown below.

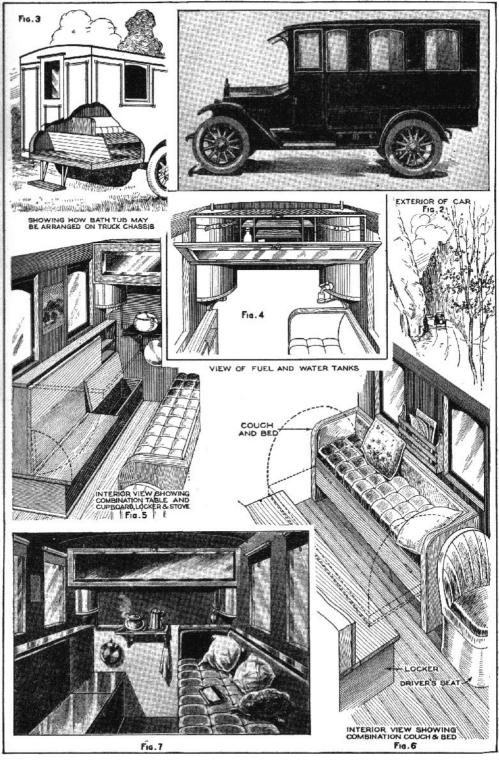
The drawing at the left, Fig. 3, shows an original idea of one bath-loving tourist

who arranged a bathtub of his own designing under-

neath the floor of the body. During the daytime, and when not in use, the tub served to hold the "crew's" bedding, and similar articles. At the rear of the car are tanks for water, and fuel for the stove

Method of Framing the Car Body Is Here ing, as shown in Figure 8 are placed in the corner on suitable brackets and held in place with straps, the space between them being taken up by a locker for toilet materials, or it may be used as a storage for cooking utensils. An alternative arrangement, by means of which a larger quantity of water could be carried, would be to mount a single tank horizontally in the corner against the roof; then again, the tank might be mounted on the outside.





Interior and Exterior Views of an Up-to-Date "Land Yacht." The Interior Arrangement May Be Varied According to the Fancy of the Owner