

LOOKING TO CUTS WILL SAVE TIRES

Careful Inspection Every Day
Will Put Money in the
Motorist's Pocket.

TUBE LUBRICANT HELPFUL

M. S. Firestone, President of Firestone Tire & Rubber Company,
Gives Advice on How to Get
Best Results From Casings.

BY H. S. FIRESTONE,
President Firestone Tire & Rubber Co.
You immediately locate a knock
in your engine or the slightest noise
in your car mechanism anywhere. Be-
cause tires give an alarm until they
blow out or go flat, many motorists
fail to give them even a casual ex-
amination. It is a good plan to look
them over carefully every day. You
forestall a big loss by having the first
sign of trouble attended to. You keep
your tires efficient and by saving from
waste you keep your money efficient.
Attention should be given to punc-
tures, cuts, seams and other injuries,
even though they may appear to be
trivial. Small injuries of seeming un-
importance often grow into serious con-
sequences. It is advisable to have the
repairs made by an experienced work-
man. As a usual thing, the amateur
does not reinforce the injury, when
needed, and is so vulnerable to the
rubber too long—this not only makes
it hard and brittle but burns the ma-
terials around the repair.
Pieces of fabric of different sizes
placed inside of the tire, regardless of
the weave of the threads, will wrinkle,
separate and not afford any appreciable
strength of reinforcement.

Repair of Cord Tires.
All fabrics, for every style of repair
should be cut on a bias in the same
manner that the fabric is cut for the
original construction of tires. Repairs
that are hard and bulge are generally
a result of cutting the fabric straight
with the roll, i. e., lengthwise and with
the warp.
The same method of tearing down
and building up fabric cases can be
used in the repair of most cord tires.
The cord can be obtained from the
manufacturer just as the regular fabric
is obtained and is applied in the
same way, and is possible to build up
sectional repairs with regular fabric,
but the repaired section will be stiffer
and less elastic than other parts of the
tire, and there is a danger of the
repair bulging and loosening in ser-
vice. It is not recommended.

The new cord layers should be ap-
plied so that the cords will be parallel
with the cords of the layer removed,
putting the new material up tightly
against the old material. It is then ad-
visable to apply a thin narrow strip
of cushion gum over the joints. The
same breaker strip fabric and chafing
strip fabric is used as in the repair of
fabric cases. No special equipment is
necessary for the vulcanizing of cord
cases.

Care and Usage of Inner Tubes.
If the tire users understood the con-
struction of inner tubes, and things
which contribute to their wearing out,
it would be easy indeed, to secure more
and better service. Spare tubes should
not be carried in cardboard boxes as
furnished from the dealer's shelves.
There is danger of the tubes being
chafed. Tube bags can be secured for
this purpose.

If the car is equipped with smaller
tires on the front wheels than on the
rear wheels, an extra tube should be
secured for each size.
The cross sections of inner tubes are
made a little smaller than the normal
air space inside of the cases. It is not
advisable to use 4 1/2-inch tubes in a 4-
inch case. This usually works during
the winter months with bad results.
Do not use a 4-inch tube in a 4 1/2-inch
case for any length of time. When
this is done the rubber is required to
stretch too much and the effect of heat
and action due to displacement of air
in the tire quickly uses up the life of
the tube.

G. F. Horn—By Himself.
Lubrication is most important to
conservation of the tube, but it is a
matter that is given least attention.
Practically all tire manufacturers treat
the inside of cases with a white solution
to prevent tubes from sticking to the
adhesive "friction" of the fabric—a
good lubricant, however, should be
used.

**Apperson Dealer Speaks Highly of
His Car and Incidentally of Him-
self.**
I CAME to Portland last June from
the intermountain region, where I
had been selling Apperson cars for the
past nine years, to introduce the best
motor car in America to the people of
Oregon. I am not at all inclined to be
modest in asserting the good points of
the Apperson, the famous eight with 30
less parts, for its performance will am-
ply back up anything I say.

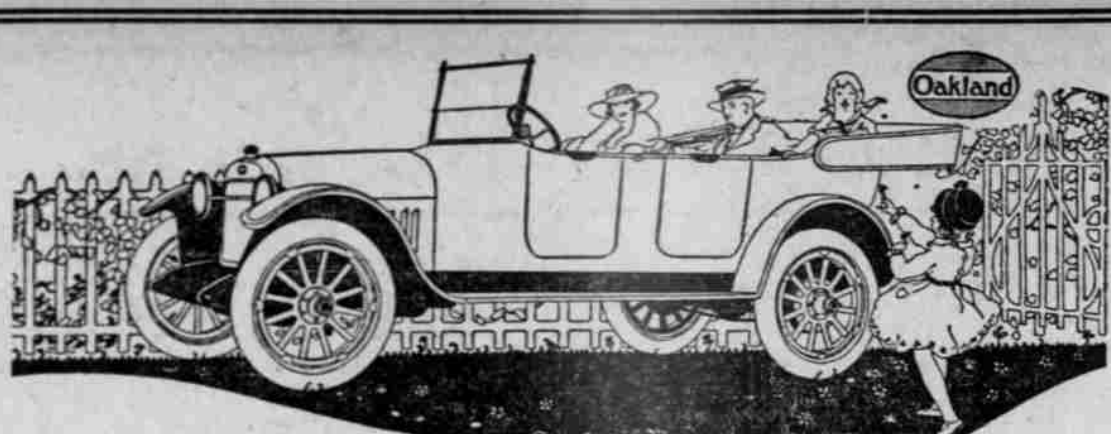
For 25 years the Apperson brothers
have been building Apperson cars. They
have been the pioneers in a great many
of the best features of motor cars to-
day and they are still pioneering and
making new improvements. Their latest
feat has been to build an eight-cylinder
motor that has, as I have said, 30 less
parts than any other eight-cylinder mo-
tor.

This motor is simplicity itself, and
when it comes to performance—well,
the very name Apperson is synonymous
for motor car performance.
I am very much more modest in re-
gard to myself than in regard to the
Apperson. And so if I may be excused,
I will let the fact that I handle the Ap-
person line, of which I can speak so
confidently and warmly, speak for me
in the way of personal biography.

Wrong Sizes Four Reasons.
When a tire is ridden soft there is a
tendency for the beads to lift up at the
toes due to the internal pressure and
weight of car and sometimes permit
the tire to work under the axle. This is ag-
gravated when the tire has been con-
stantly ridden soft and beads have
been cut and broken by rim.
Don't crowd a tire of wrong size on
a rim simply because you are able to
do so, by physical force. It is not econ-
omy—aside from the injury to the
beads, much annoyance can be expected
as the result of tubes being pinched.

Deterioration, contrary to the gen-
eral impression, is not necessarily a
result of age but is largely influenced
by the conditions under which tires are
held in stock.

Tires should not be kept in a warm
place for any great length of time, as
light and heat will cause the sulphur
to come to the surface and make the
rubber minutely porous. A dark, dry
room at a temperature of from 40 to
50 degrees is most favorable for re-
tarding chemical action.
When the car is laid up for the
winter, or for other reasons is not used
for several weeks, the stale air should
be removed from the tires. Partially
inflate with fresh air—enough to round
up the tires and cover them with mus-



Shown as They Really Are

The Oakland Sensible Six—a
motor car that anticipated the
present National thrift policy
by nearly three years—is now
on view at our show-rooms in
a full range of body styles.

Upwards of one hundred thou-
sand careful buyers have test-
ed the mettle of this car under
the rigorous conditions of
everyday service, and to every
one of them it has delivered
an unequalled measure of util-
ity and satisfaction.

The rugged and serviceable
chassis which is the founda-
tion for all Oakland Sensible
Six models, equipped with the
powerful and economical over-
head-valve engine delivering
44-horsepower at 2600 r. p. m.,
is also displayed with all its
working parts revealed.

But none of the cars on view
has been specially finished for
this exhibit—all are shown ex-
actly as they would be deliv-
ered to you.

Open Evenings

The Models Displayed Are:

Touring Car	.....\$1115
Roadster	.....\$1115
Roadster Coupe	.....\$1304
Sedan	.....\$1345
Coupe (unit body)	.....\$1652.50

All Prices f. o. b. Portland
(including war tax and freight)

Oakland Motor Co., of Oregon Motor Sales Corporation

Wholesale Distributors (AROUND CORNER) Retail Distributors

BROADWAY, BURNSIDE AND PARK STREETS, PORTLAND, OREGON

OAKLAND SENSIBLE SIX

WILL NOT BE EXHIBITED AT AUTO SHOW

lin or other material to protect from
the light. The weight of the car should
be supported by blocks or packs, so
that there will not be any weight on
the tires.

CAR BEAUTY IS SKIN DEEP

Owner Wants Performance When
He Buys His Second Car.

"The man who has owned an auto-
mobile considers the purchase of a sec-
ond car from a different standpoint
than when he purchased his first one,"
says W. L. Kiesel, secretary and treas-
urer of the Kiesel Motor Car Company.
"His experience has taught him to
carefully inspect, examine and compare
the vital parts of the car, such as the
springs, brakes, axles, chassis, frame,
transmission, motor and construction
of the body. In other words, he has
found that while finish and appearance
are necessary, he should make sure
that its beauty is more than skin deep."

G. F. Horn—By Himself.

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the tires.

MAXWELL GOES FAR

ONE-TON TRUCK BACK FROM 2500-
MILE RUN.

A. A. A. Officially Certifies That Model Setting Mark Was Regular Stock Product.

That the Maxwell one-ton truck
which has just completed in New York
a successful demonstration drive of
2500 miles from New York to Jack-
sonville, Fla., and return was a stock
model throughout has just been cer-
tified by the A. A. A.
The technical examination required
by the A. A. A. after the truck's return
to New York has been completed by
James A. Hemstreet and the Maxwell
officially certified as a regular stock
product. The stock certificate plate has
been issued for the truck and this
honorific will adorn the instrument
board of the record-maker.

The Maxwell in this is the only truck
in existence and the only one in the
history of automobile production ever to
attain for itself this decoration of per-
formance. The drive was made under
the first sanction ever issued by the
A. A. A. to apply to a truck provin-
g out.

The Maxwell Company arranged for
the demonstration under the rigid re-
quirements of the highest available
agency in this country of disinterested
authority in order that business men
everywhere might have substantial
facts as to the durability and operat-
ing economy of this truck.

LUBRICATION IS ADVICE GIVEN

Standard Oil Man Explains Advan- tages of Zero Cold Test Oil.

"Correct Winter lubrication can be
obtained only by using an oil of zero
cold test—one that will flow freely at
zero temperature," says C. H. Hamilton,
the very name Apperson is synon-
ymous for motor car performance.
"In this respect oils made from
Western asphalt-base crude have a
big advantage, as they contain no
paraffin to thicken under cold, and
consequently have a natural zero cold
test.

"Poor cold test oils do not lubricate
correctly until the motor has been

running 15 to 20 minutes, as the oil is
not fluid enough to splash and feed
properly. This means excessive wear
of bearings, cylinders and pistons.
"Owners of Ford cars who have been
having trouble during the cold weather
in cranking their cars, due to oil con-
gealing between the clutch plates, will
find that an asphalt-base oil of light
body will solve their cold weather
lubrication difficulties."

AUTO IS BOON FOR SALESMEN

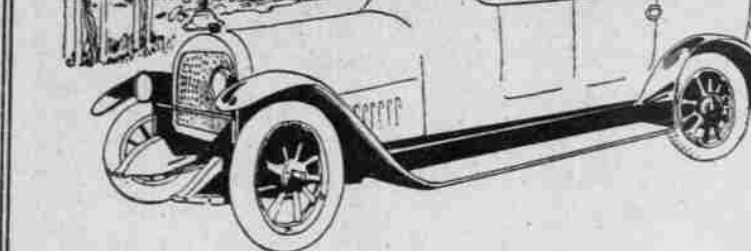
Efficiency and Territory Covered
Vastly Increased.

"Americans do not walk much; not
because they are lazy, but because their
legs will not carry them fast enough,"
wrote Max O'Reil years ago, even be-
fore the automobile was invented. Since
then the pace is vastly increased, and
among the fastest must ever be the
traveling salesman, whose name is
legion, says Milestones.

One of the tribes frequently found
himself stranded in some small Kansas
town, his business done, and no train
out before midnight or tomorrow. Other
salesmen he found in the same predic-
ment. So he bought a five-passenger
car of stout make, mapped out several
courses of towns that might be made
from the city in one or two days' runs,
and called in his fellow sufferers to
join him. He charged them 50 cents a
town, and one Saturday they traveled
over 110 miles and made 10 small trips.
Each of his passengers paid him \$5 for
the trip—which was less than their
usual expenses for that territory.

Besides, each man did a big day's
business, each carrying a different line
of goods. Better still, they saved them-
selves several days' of wearisome
lounging about depots and cheap hotels

New York Show Models DIRECT FROM KISSELKAR Factory.



Best Original Motor That
Changed the Motoring
Habits of a Nation



KISSELKAR PRICES.

F. O. B. Pacific Coast.

Standard touring, 5-pass.	.....\$1870
Standard roadster, 3-pass.	.....1870
Gibraltar roadster, 4-pass.	.....1760
Sedan touring, with all- year top	.....1860
Standard sedan (price in- cludes auxiliary seats, mobile upholstery, spe- cial paint)	.....2235
Coupe (price includes mo- bile upholstery and spe- cial paint)	.....2230
Staggered door sedan (price includes mobile upholstery, special paint)	.....2410
Sedans (price includes mo- bile upholstery and spe- cial paint)	.....2385
Town Car (price includes special paint)	.....2450
Chassis only	.....1315

IN YOUR rounds of the wonderful display at the
Portland Annual Motor Show we ask you to
compare the Kiesel with what you see.

AND when you count off the points of each, one by one,
we want you to think of the KieselKar as an appeal
to the man who demands the utmost in utility, combined
with a certain elegance, personality and distinctive design.

WE WANT you to think of the KieselKar as its de-
signers did—a vehicle that will answer your every
motoring need.

WE WANT you to realize how, with Summer top, the
sturdy build, power reserve and riding qualities
amply fit this car for every touring need.

THEN, when winds blow and beating rain demands a
closed car to secure any vestige of comfort, see how
completely your same car with "built in" top gives you
all in comfort and security.

THEN, study the many attractive
styles and adaptations that Kiesel
offers. It is no wonder that this car is
spoken of as the one that "changed the
motoring habits of a nation."

PACIFIC KISSELKAR BRANCH

W. L. Hughson, President
Portland Branch, Broadway at Davis
Oldest Motor Car Dealers on the Coast with branches at
SEATTLE FRESNO LOS ANGELES SAN DIEGO OAKLAND SAN FRANCISCO

away from their homes. It was a
wholly different, more successful Sum-
mer for each man because of the "car-
club" which they formed for future
brotherhood and business, and the en-
tertaining salesman who bought the car
on credit had it paid for long before
the Summer was over.

India Adopts Auto.

India made its first experiment last
February with motor instead of horse
vans to carry the mail to sub-offices.
So successful was the experiment the
entire horse service is to be abolished.
The substitution resulted in a consid-
erable saving. The cars also reduced
the time of transit between the several
offices.

Elgin Gas Mileage High.

A careful review of the reports of the
Elgin Six National all trails scout car
for its 6202-mile journey over the Lin-
coln Highway from Chicago to San
Francisco, thence to Los Angeles and
on the National Old Trails roads to St-

Louis and thence to Chicago, shows
that the gasoline consumption averaged
19.4 miles to the gallon on this gruel-
ling trip. The car was strictly stock
and the hood, transmission and clutch
were sealed.



9467 Miles

On this Prodiem Process Rubber Tire

Wonderful new rubber that wears
down as evenly as fine steel

The illustration above is a section from a
Prodiem Process Tire that ran 9,467 miles on
a heavy car. Note the thickness of tread still
remaining.
Prodiem Process Rubber (the new tire tread stock used
exclusively on Republic tires) is practically chip proof and
cut proof. Thousands of miles of service leave its surface
in perfect condition. Rotting of fabric and resultant
blow-outs are reduced to a minimum. Think of what this
means in tire bills.

Get a sample strip of Prodiem Process Rubber. Try to
break it. Its wonderful tensile strength is but one of the re-
asons why Prodiem Process tires give such excellent service.

REPUBLIC PRODIEM TIRES

STAGGARD, PLAIN, AND "WM" TREADS
MADE IN THE U.S.A.

SEE US AT THE AUTO SHOW

PORTLAND TIRE & TRUCK CO.

Sole Distributors
71 BROADWAY

Call in, Call on, Call up

Marshall 1752 Day or Night

"DOCTOR SPARK"

SPECIALIST

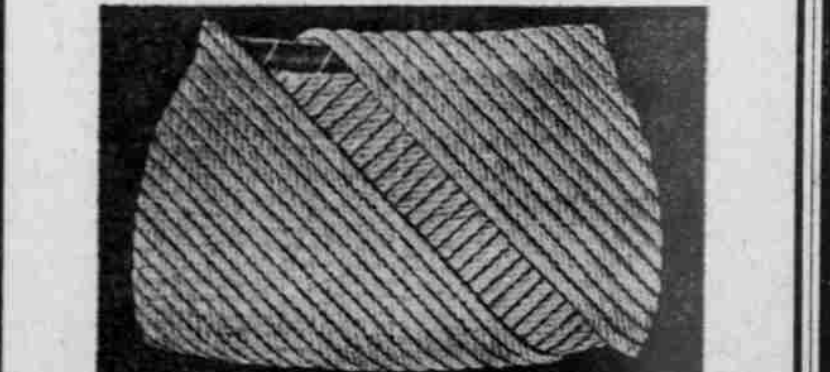
—for battery and light troubles and make the
electrical equipment on your car a genuine
J-O-Y! Night service.

Service representatives for Electric Auto Lite
Corporation, Gray & Davis, Inc., Northwest
Electric Co., Edison, and General Lead batteries.

12th and Alder Portland, Or.

GIBSON
ELECTRIC
GARAGE &
STORAGE
BATTERY
COMPANY

Just One Machine in the World Can Build this Tire Carcass—That is the New Type of Tire Machine Found in the Carlisle Cord Factory—



AN AMAZING NEW TIRE

The Carlisle Cord Tire has been perfected after years of quiet, patient
labor under direction of men of long experience in the tire industry.
Buy a set of these new tires and watch your tire mileage increase.

Pacific Tire & Rubber Co.
445-447 Stark St.
Wholesale Factory Distributors Retail