

VOL. LVIII
MADE TO WEED
DANGEROUS DRIVERS

Car Scores Motor
Fitness in 15 Minutes

ALL OF UNFITS MOUNTS
Drivers Succeeded in Killing
More than 20,000 Americans
in the Last Year

Winter Clutch on Car
ICY FINGERS OF BOHEAN
TAMPER WITH ENGINE

Greatly Improved Carburation in
Winter Starting is Obtained
By Buick Engineers

Heat from the exhaust gases is
diverted around the chamber
above the carburetor, warming
the mixture of gas, fresh air
and gasoline which fires the
cylinders. Cold gas is liable
to condense and thin the oil. Gas
of the right temperature fires readily
and furnishes positive power with
every explosion.

Control Shuts Off Heat
But too hot gas will cause
pre-ignition with great loss of power.
The Buick heat control guards
against this contingency by auto-
matically cutting off the supply of
heat as the throttle is advanced.
The temperature is thus kept al-
ways just right for maximum run-
ning efficiency at the start, even
in the coldest weather.

As an additional safeguard
against pre-ignition and its attend-
ant evils, a manual control is
mounted on the dash convenient
to the driver. This control is
marked with three positions, "heat
on," "medium" and "heat off."
Its only function is to change the
point at which the heat is shut off.

When at the top or "heat on"
position, the car may attain a
fairly high rate of speed before
the heat is automatically reduced.
This position should be used in
traffic or on an exceptionally cold
day. In the "medium" or "heat
off" position, the heat is auto-
matically cut off at a speed before
the heat is automatically reduced.
This position should be used on
hot days or on long country
drives. In the "heat off" po-
sition, most of the heat is car-
ried away from the carburetor,
and as the speed of the engine
increases it is cut off entirely.

HELPERS SPORTING EDITOR
CHRYSLER RACES AGAINST
TIME WITH GRID PHOTOS

Block that kick!
Being good football men as well
as good newspaper men, Blinky
Horn, sporting editor of the Nash-
ville, Tenn., Tennessean, and J. J.
Boyle, football photographer of the
same paper, knew that to go to
press with the story of the Van-
derbilt-Auburn football game
without photographs would cause
a howl from their football fans
at the farthest corner of the com-
pounding room.

So, for 226 miles, up half the
state of Alabama and cross moun-
tains half the state of Tennessee,
they raced against time in a
Chrysler six phonon. Leaving the
stadium in Birmingham, Alabama,
at 3:12 in the afternoon they were
in Nashville at 9:06 in the evening,
with photographs of the 19- to
9 Auburn victory.

The driving was done by Paul
Creech of the Hermitage Motor Car
company, Nashville Chrysler dis-
tributors, and the actual running
time was only five hours, though
twenty-one minutes. They made
the first 12 miles the first
hour out from Birmingham, due
to deplorable condition of a long
detour, they made up for it once
they hit better roads. They made
the distance from Columbia to
Franklin, 28 miles, in 23 minutes,
Franklin to Nashville, 18 miles in
15 minutes.

Car Stealing Is Reduced
Another effective blow was dealt
the motor stealing industry when
an international agreement of co-
operation was reached between the
Mexican military and police of-
ficers and American officials for
the apprehension of automobile
thieves. Prompt and concerted
action to curb the rash of stolen
vehicles across the California-
Mexican border has already been
taken.

UNCLE SAM GETS BENEFIT SAVINGS ON MAIL DELIVERY PAY FOR AID

"It is a matter of record that
increased services at lower cost in
rural mail and parcels post has
already made savings which go
toward paying the interest on
every dollar of federal aid spent
for highway construction."
This is one of the answers given
by the critics of federal aid by J. M.
Loomis of the Washington office
of the national highway admin-
istrator, the advisory board of
the District of Columbia division
of the American Automobile asso-
ciation.

With the introduction of rural
delivery mail service, the use of
the highways by the government
was greatly increased. Mr. Loomis
points out, while every mile of
surfaced road means longer deliv-
ery routes and a larger number of
people served.

The federal government is now
using 1,285,572 miles of highway
every day for this service. While it
has so far used only 250,000 miles,
improving approximately 250,000
miles. In the use of this route
message by the government, 30,1
667,814 individuals are being
served and there are still 14,000,0
000 persons to be added as the
service is extended over the years.

WINTER CLUTCH ON CAR

Greatly Improved Carburation in
Winter Starting is Obtained
By Buick Engineers

Winter's icy fingers have begun
to tamper with automobile engines
and the motorist starts his car
either with curses or satisfaction,
according to how well it is
equipped to combat the paralyz-
ing influence of cold.

Greatly improved carburation
in winter starting and driving has
been obtained by Buick engineers
through the development of the
Buick automatic heat control. This
device does away with the old
practice of storing the car for the
winter because of hard starting
and faulty performance. It as-
sures Buick drivers a quick start
and smooth operation from the
go.

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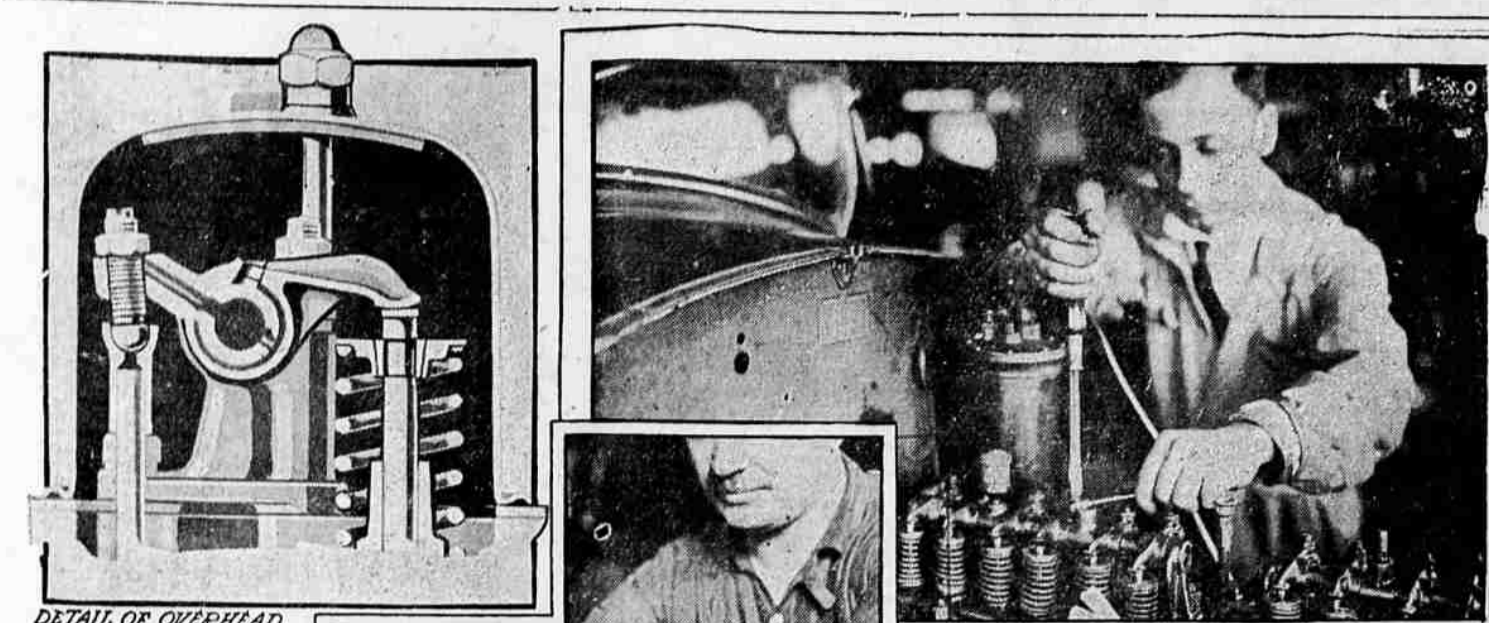
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Care of Valves and Their Adjustment Vital to Proper Performance



DETAIL OF OVERHEAD
VALVE CONSTRUCTION.



VALVE ADJUSTMENT AT CENTER OF ROCKER, U

BY HAROLD P. BLANCHARD
As pointed out last week valves
should be adjusted when the engine
is thoroughly warm, unless, other
circumstances and leakage will cause
the proper clearance between
valve stem and pushrod varies with
different engines, but a safe aver-
age is six thousandths of an inch as
measured by a feeler gauge which
may be purchased in any hardware
store. However, lacking a feeler
gauge, good results will usually be
obtained by adjusting to about
twice the thickness of this paper.

Some people would say that
single thickness is sufficient, and it
is under perfect conditions, but
two thicknesses are safer. If clear-
ance is too small the valves may
not close completely under all cir-
cumstances and leakage will cause
worn valves and that is immediately
after grinding. Then if the push-
rod lock nuts are properly tight-
ened there is no reason why valve
adjustment should be altered until
the next time the engine is run.
The need for adjustment after grinding
is due mainly to the fact that
grinding tunnels the valve a little
further into its seat. This re-
duces the stem clearance, in some
cases sufficiently to cause all valves
to leak, in which case hard starting
and loss of power will be noted
prior to valve adjustment. Minor
reasons for valve adjustment include
wear on valve stems and push-
rod faces, and wear of rocker arm

bushings and shafts of overhead
valve mechanisms.
With the foregoing facts thor-
oughly in mind, it is clear that if
any valve requires adjustment in be-
tween two valve grinding periods,
either the valve was improperly ad-
justed in the first place, or the ad-
justment was not locked securely
—or something is wrong, in which
case it should be assumed that the
valve adjustment is correct and the
trouble is elsewhere.

Assuming proper valve adjust-
ment in the first place, these things
may produce excessive clearance:
1. Badly encrusted exhaust valve
in need of grinding the most likely
cause.
2. Warped valve head.
3. Warped valve stem causing
steeking.
4. Sticking valve stem due to
gummy oil or heavy carbon deposit
on the upper part of stem.
5. Badly worn rocker arm bush-
ings or shaft (overhead valve en-
gines only).
6. Bent rocker arm long push
rod (overhead valve engines only).
7. Loose rocker arm shaft re-
taining nuts or bolts.

Numbers 5, 6 and 7, may be
readily determined by inspection,
number 5 being cured by valve
adjustment to compensate for wear
or by replacement of worn parts.
Number 4 may sometimes be cured
by squirting kerosene or carbona
on the valve stem when the engine
is hot. Otherwise number 4 as well
as numbers 1, 2 and 3, are taken
care of under valve grinding de-
scribed last week.

Be in mind that leakage past
an intake valve will always be ac-
companied by backfiring and that
excessive clearance on an exhaust
valve may sometimes cause slight
backfiring, but do not confuse back-
firing (in the carburetor) with buf-
fler explosions.
The actual adjustment of the
valves is not difficult, but it does
require care. As previously pointed
out the engine should be warm. To
save time, two end wrenches which
exactly fit the pushrod adjusting
nut and locknut are desirable.
When adjusting a valve it is im-
portant to know that the valve is
completely closed. This is most
readily determined by removing the
distributor cap and cranking the
engine by hand until the motor
brush points to one of the seg-
ments. Trace the high tension wire
connected to this segment to its
spark plug and adjust the valves
in this cylinder. Turn the engine
slightly until the motor points to
the next segment. . . and so
on. It is convenient to remember
that the engine must be cranked
half a revolution if it has four
cylinders to move the brush from
one segment to the next; one-third
revolution if a six; one-quarter re-
volution if a eight; and one-sixth
revolution if a twelve.

In most cases the valve is ad-
justed by loosening the lower push-
rod nut by turning it slightly to
the left (anti-clockwise), then turn-
ing the upper nut one way or the
other until proper clearance is
obtained, after which the locknut
is tightened again. Check the clear-

ance again after tightening the
locknut.
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VALVE ADJUSTMENT
AT END OF ROCKER

AN L-HEAD
ENGINE
SHOWING
VALVE
ADJUSTMENT

REDWOOD HIGHWAY GOOD
IN SPLENDID SHAPE WITH
TWO EXCEPTIONS

With the exception of two short
stretches, the Redwood highway
from San Francisco to Eureka is
in excellent condition. The first
short stretch is encountered be-
tween Mark West Creek and
Healdsburg where the road has
been under construction for some
time. No difficulty is encountered
here excepting during or following
rains when the road is inclined
to be slippery.
The next stretch is a detour of
one-quarter mile, 48 miles north
of Willits. This detour would be
poor in rainy weather and it is
advisable to carry chains. Due to
the maintenance work being done
by the contractor in charge of this
work, no great amount of trouble
would be experienced here.

12-6-25
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QUICK GEAR SHIFTING IS ESSENTIAL IN AUTO JAM

Every Street in Cities Now
Choked With Cars

SAFETY FIRST IS NEEDED

Driving Ford Car Soon Becomes
Automatic Action on Part
Of the Operator

Present day traffic congestion
has developed an ever increasing
demand for easier operation, sim-
pler control, quicker getaway and
gear shifting in motor cars. With
every metropolitan street and
boulevard literally choked with
automobiles, drivers are quick to
realize that the less complex the
control of the car, the greater the
element of comfort and safety in
driving.
Relieving the driver of exertion
and distraction; permitting him to
watch the road ahead and keep
both hands on the wheel while
threading through traffic where
frequent gear shifts are necessary,
have always been outstanding vir-
tues of the control system of Ford
cars. In the improved cars, these
features have been subjected to a
number of refinements calculated
to meet the demands of present
and future driving.

Driving the Ford car soon be-
comes automatic action on the
part of the operator. The gear-
shift is simple in the extreme and
because of the fact that all gears
are constantly in mesh, it is phys-
ically impossible to clash the
gears or fail to accomplish the
shift. Refinements in the design
of the pedals—wider with flanges
to prevent any possibility of slip-
ping—contribute further to the
simplicity and certainty of opera-
tion.

Frequent starting and stopping
means more wear on the clutch of
the city driven car and the im-
proved Fords are prepared for this
strain. Ford clutch disks are not
lined with the conventional com-
position, but instead are operated
in oil, the strain of starting the
propeller shaft being taken up by
the film of lubricant. At points
where there was formerly contact
between steel and cast iron, re-
designing has brought steel to-
gether with steel insuring unusu-
ally long life for the clutch.

Danger of skidding upon apply-
ing the brakes is reduced to a
minimum because of the fact that
the braking action is applied to
the rear wheels equally through
the drive shaft. Braking units
both in the transmission and on
the rear wheels have been enlarged
to insure long life and greater ease
in bringing the car to sudden stops
demanded in emergencies.

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Christmas At Grandpa's
It's winter, and the roads are deep
in mud and slush and snow.
There is no concrete paving on the
route which we must go.
A motor trip is chilly, too; it lacks
the springtime charm.
But we must spend our Christmas
just the same, at grandpa's
farm.

It's pretty near a hundred miles,
but we start out at dawn.
The children snugly wrapped in
rugs, the curtains tightly
drawn.
For hours we plow our weary way
through endless miles of
mud;
A bridge is down; we must detour
to cross the river's flood.

Are slip and slide upon the hills;
we sink into the mire.
And in the deepest of the mud I
have to change a tire.
The sun fades out; it looks like
rain; the skies are dark and
murky.
But what care we? Ten miles
ahead is grandpa's Christmas
turkey!

It's almost dark and colder, too.
We're almost tumbled out,
but here's the lane to grandpa's
door, the end of our long
toil.
What matter if the roads were bad;
we've suffered no real harm;
And here we are, for Christmas,
down on grandpa's dear old
farm.

Robinson Crusoe eagerly inspect-
ed the track on the beach.
"Ah," he said, "somebody's driv-
ing on non-skid tires."
Uncle Eh, he says:
Mother and I still stick to our
custom of kissing the children good
taken.

of a detour map and a weekly
bulletin covering the entire coun-
try. The bulletin itself is to be
based on daily telegraphic reports
from state highway commis-
sioners, from county authorities, from A.
A. clubs, scouts and individual
members.

The detour bulletin will show
not only the location of detours on
the primary highways but will
give the length of the detour and
the conditions to be encountered.
In some instances the condition
and length of the detour is
such that it is more economical to
select alternative routes. It is also
true that many motorists have dis-
covered for themselves that they
cannot always depend on local in-
formation, for the reason that
communities will in many in-
stances give a biased report so as
not to lose motor tourist traffic,
even for a few days.

Hence the importance of a national
clearing house for accurate
detour information. This informa-
tion will be available every day to
the 2,500 clerks engaged in the
business of routing automobiles
over the counters of 730 A. A. clubs.
Coupled with this program
for an adequate national detour
information service, the A. A. A.
is at present urging on state gov-
ernments and the political subdi-
visions thereof the importance of
keeping detours on main highways
in as traversable a shape as pos-
sible at all times and also the im-
portance of giving due notice in
advance of any attempt to close
stretch of highway.

"It will mean not only a great
service to the motoring public,"
says the A. A. A. national touring
board. "It will also mean an
enormous economy in car opera-
tion and, equally as important, it
will help motorists to travel on
schedule time."

A stout woman drove up to a fill-
ing station. "I want two quarts of
oil," she said.
"What kind, heavy?" asked the
attendant.
"Say, young man, don't get fresh
with me," was the indignant re-
sponse.

—Iowa Frivol.

PROBLEM OF DETOURS
IS BIG SOURCE OF WORRY
AND LOSS OF TIME

A. A. A. Projects Detour Map and
Weekly Bulletin Covering
the Entire Country

Save now for a Chevrolet

We Pay You 6%

Get ready to drive a new Chevrolet. It's easy to do the
Certificate way.
Come in tomorrow and choose the model you prefer.
Make the first down payment—say \$5—and we issue to
you a Chevrolet Purchase Certificate that pays you 6%.
Weekly or monthly you keep adding to your Certificate
savings. When your payments plus this 6% interest equal
the cash delivery payment, you drive the car away and
take care of the balance in regular monthly installments
on the lowest time payment plan in existence.

All money which you pay on your Certificate is depos-
ited in a trust fund at a bank. In addition to this safeguard
for your Certificate payments, both the bank and we our-
selves are insured by a strong, well-known insurance
company so that absolute protection for your funds is
assured.
If you now own a car, we will credit your Certificate
with an additional 6% on all service, repairs, and acces-
sories which you buy from us. This is in addition to the 6%
interest earned on the money you invest in your Certificate.

Here is the simplest, safest, easiest, thriftiest way to buy
a car ever devised. Come in today! Learn how easy it is
to own a quality Chevrolet.

GANNETT MOTOR CO.

Lane County Distributor
Corner Ninth and Olive Streets Telephone 627

SUB DEALERS
LEONARD HUCK, Mapleton, Oregon
E. W. REWEY, BATTERY STATION, Springfield
CRESWELL GARAGE, Creswell, Oregon
MCKENZIE BRIDGE GARAGE, McKenzie Bridge
TAYLOR'S GARAGE, Veneta, Oregon
O'HARA-McNUTT CHEVROLET CO., Cottage Grove

QUALITY AT LOW COST