

TUBULAR BACKBONE IS EXCLUSIVE STAR AUTOMOBILE PART

BY KENNETH ABLES

Although the fact that any Star car may be driven with one front wheel removed has been an established fact for some considerable time, yet, nevertheless, the memorable trip of the Three Wheeled Star from Eugene to Wendling, wherein the return trip was made in an hour and a quarter, has caused no end of comment, and many "fans" have come to us for the explanation.

It is all concealed in the words, symbols of the wonderful exclusive Star feature, not to be found in any other type of car except Durant and Flint, and those two words are "Tubular backbone."

Then to those who yet have had no opportunity to investigate this exclusive feature let us explain that twisting, weaving, and shifting, are some of the common faults of the average light car frame. The tubular backbone then, which is, of course, a patent unit, acts as an additional brace to the six cross members, being a six inch steel tube running parallel to the frame, and gives the Star frame a rigidity that is found in no other light car.

It is possible and one of our regular demonstrations to place a Star, that one front wheel is 18 inches above the other and the two rear wheels on an equal plane. Then every door is just as easily opened and closed as any car on a show room floor. Literally hundreds of people are visiting our plant weekly requesting demonstrations of the new Star of the fact that the rear axle gear ratio remains unchanged, and that we use only an average good grade of lubricating oil, and plain ordinary commercial gasoline, which facts will reverse the opinion of some folks we are, actually making most unusual power tests.

Not satisfied with making the hairpin turn on Skinner's butte with four and five passengers in high, of course, our boys now stop the car when half way between Pearl street and that "hairpin," let the car drift backwards, and still leaving it in high, catch the backward momentum with the clutch and start on up again, in high, make the turn and then repeat the performance between the hairpin and the steep pitch at the first reservoir. At this reservoir, this feat is done the third time and the left hand pull to the top made from the standing start in high.

If any person is not impressed with such performance try to duplicate the feat with any powered car, be it four or twelve cylinder, a six or an eight.

The Star car is one of the most in demand in America and our factory wholesale division has received numerous applications for agencies from some of the largest dealers on the Pacific coast not handling Star cars now, who evidently can see some kind of "handwriting on the wall."

Flivver Back-Talk

A few of the messages from the spare tire covers on a popular make of car:

- I rattle, but I don't strike.
- Dad, I am growing old.
- Where Papa goes, Mama goes, or Lizzie stays at home.
- The crap-shooters' special—shake, rattle and roll.
- Willie's nightie.
- Not Willie's night—but Tom's.
- Spinal cords wear the longest.
- 1924 Spoonholder.
- 4 wheels, 4 brakes, 4 more installments.
- Dodge—no metal can touch you.
- Bryanized—not in the race but still running.
- I ain't a-join' to run much more.
- True love never runs smoothly.
- Chicken! Here's your coop.
- Sister, you'd look tough without paint, too.
- Laugh, but I paid cash for mine.
- 4 wheels! No brakes! Look out!
- There's beauty in every jar.
- Sound value. Can't you hear it?
- Blow horn and jump over.
- Danger—10,000 jolts.
- Dangerous but passable.
- For Sale, \$1.98 while it lasts.
- Exasper. '87.
- Hesit. '87.
- Viber '88.
- Can you add to this list?

Good Roads Cut Auto Gas Bills Square in Half

Good roads in North Carolina save the motorists an average of \$16.25 a year, statistics show.

Here is the way the check-up is made:

In 1921, 72,400,000 gallons of gasoline were shipped into the state, which at that time had a total registration of 142,000 automobiles.

The state highway commission took over the roads that year and smoothed them up. The following year there were 82,000,000 gallons of gas shipped into the state, and 182,000 cars registered.

This was an average of 450 gallons to the car, 65 gallons less than the average in 1921. This 65 gallons of gas at 25 cents is \$16.25.

ZANNI TO FLY ON

TOKIO, Feb. 7.—Although Japanese government officials have requested that Major Zanni leave his round-the-world airplane in a Nippon museum, the Argentine aviator plans to resume his world flight in May in the hope of being the first South American aviator to encircle the globe.

SERVING HUMANITY

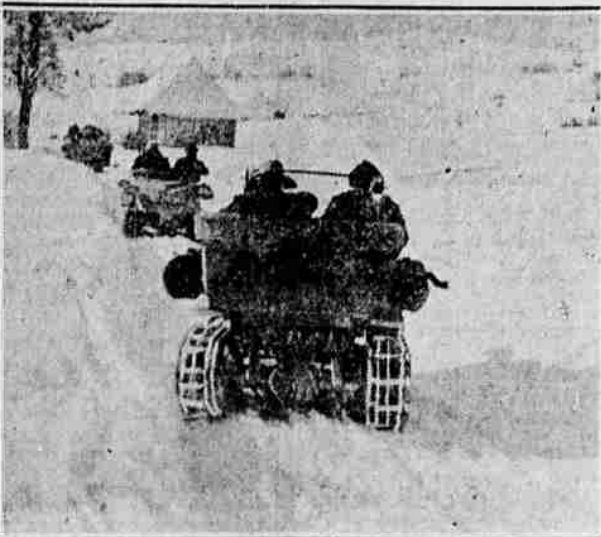
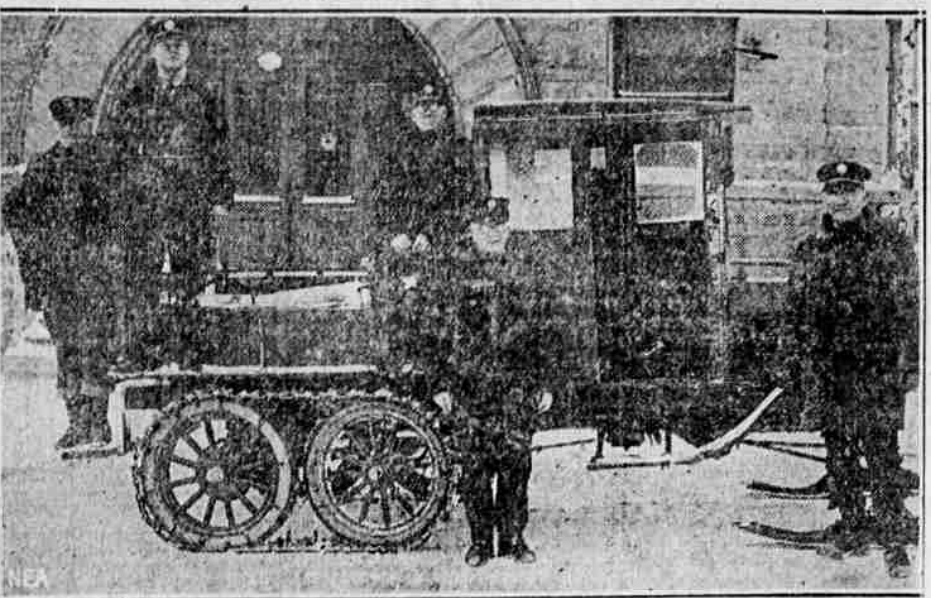
LONDON, Feb. 7.—His plea that he broke a law "to serve humanity" failed to prevent Dr. H. C. Hackney from being fined about \$15 for driving with an old license tag. The doctor said his car refused to start and he took his wife's with the old tag, but the judge wouldn't listen.

KILLED BY ENGINE

LEICESTER, Eng., Feb. 7.—George Stevens, an engineer for 50 years, was killed by his own engine when it suddenly started forward while he was oiling the wheels.

SNOWDRIFTS ARE NO BARRIER TO AUTOS

Another Pair of Wheels Added, and Caterpillar Chain is Attached; Car Goes on as Though Nothing had Happened at all.



If your motor car has the habit of getting stuck in the snow, just add another pair of wheels, attach a caterpillar chain drive and scoot on!

That's what the Cadillac (Mich.) fire department has done, and that's what motorists in France are doing. The upper photo shows the fire fighting apparatus adapted to deep snow driving. Skis in front, instead of wheels, make steering easier and insure against even the front wheels sticking in the snowdrifts. The back wheel arrangement can get the truck through any heavy snowfall.

And since the department is liable to be called out on a fire outside the city limits, the apparatus comes in handy for such emergencies.

In France, even passenger cars, in the habit of touring from town to town, are equipped with double-wheel caterpillar drives, as the photo at the side shows.

There's no need for clearing away the snow on the highways if all motorists took to this kind of touring in winter.

Muffler is Often Found to be Real Cause of Trouble

A certain car would operate satisfactorily at low speeds, but if speeded up, it would stop in a short time. The fuel line was taken down and cleaned, without results. The carburetor was then taken apart, cleaned and adjusted, but no improvement was noted. The valves were ground and a new gasket was placed under the cylinder head. New gaskets were placed under the intake manifold, under the assumption that there was an air leak which weakened the mixture at high speeds. After everything else had been tried, the muffler was taken apart, and it was found to be well caked with carbon on the inside. The construction of the muffler was such that only small passages were provided for the passage of the exhaust gases. As these were partly closed,

they restricted the expansion of the gases, causing a back pressure. At low speeds, the gases had sufficient time to pass through the reduced opening but as the speed increased, it became impossible for the gases to completely scavenge the cylinders on the exhaust stroke. A clean exhaust passage is just as important as a good intake suction, and cleaning the muffler requires so little time that it should not be left for the last attempt. Expensive repairs have occasionally been done to an engine when only the muffler was at fault.—American Automobile Digest.

Less Auto "Luxuries"

Decrease in the revenue from automobile excise taxes has shown the extent to which auto parts and accessories have been reclassified within the last year as no longer being in the luxury class. More than \$1,000,000 less was collected during September of 1924 than a year before.

Big Paving Year Is Forecast From Data of Engineers

Telegraphic forecasts to the asphalt association from 37 state highway commissioners and 40 city engineers of cities of 100,000 population or over indicates that the year 1925 will be the greatest year for the paving of streets and highways in the entire history of the good roads and good streets movement. From a study of the replies J. E. Pennylacker, general manager of the association, estimates the 1925 paving at fully 20 per cent over 1924 which latter year was itself a record breaker. Among the outstanding paving programs are those of Alabama with a 100 per cent increase over 1924, Missouri with at least a 60 per cent increase, South Carolina with 47 per cent. Texas will construct a much

Auto is Operated By Means of Radio

BY ISRAEL KLEIN (NEA Service Writer)

Motorists use their brakes too liberally. That's the chief cause for skidding. An automobile will skid on slippery pavement when the front wheels are turned the slightest out of the forward direction, the clutch is out and the brakes are applied. The back wheels, supporting the heavier half of the auto in most cases, become locked, cannot hold against the pavement, and carry the car on in the original direction regardless of front wheel direction.

Even when the front wheels are directed straight forward, if the car is riding along on a slippery road that slopes to the ditch, releasing the clutch and applying the brakes mean case takes the easiest course—toward the ditch—and the best driver can't stop such a slide once it's started.

Here lies the real danger. Motorists are told to steer their cars in the direction of the skid. But if the car is skidding toward a ditch, and the motorist tries to steer his car that way he is sure to go in, one way or the other.

There is no escape from such a skid. There is a preventive, as there is for any kind of skid.

That is—drive carefully, turn slowly with clutch in, keep the engine pulling the car, apply the brakes slowly and carefully.

With the clutch engaged, the engine controls the car. Brakes may then be applied easily, without letting out the clutch. Then, if the rear does begin to skid, the engine will keep the wheels turning in an effort to drive them out of the skid.

Curves should be taken with the clutch engaged, and the gears in second, or low. The brakes need not be touched.

If the car is going at a good rate of speed and necessity for slowing up or stopping is seen ahead, take your foot off the throttle and let the engine slow up the car. The brakes may be applied and released with short, easy strokes of the pedal. But the clutch should remain in until the driver is certain just another slight touch of the brake pedal would bring the car to a complete stop.

The best precaution against skidding is to avoid a sudden change in direction. Turns should be made slowly and as widely as possible.

In Emergencies If the emergency arises at which

larger mileage while Illinois sets 1-500 miles as the anticipated program for the year. Michigan on the other hand, anticipates a sharp reduction of about 25 per cent. Wisconsin of about 40 per cent and Iowa about 16 per cent from the 1924 record. These replies relate only to state highways.

"An automobile operated and steered by radio was what hundreds of persons thought they witnessed recently during a demonstration of an Oldsmobile coach at Fargo, N. D.," says Frank Calkins, local agent. "The car was started on a 40-foot circular track in a vacant lot. The throttle was set at 3 1/2 miles an hour, the steering wheel turned to make the correct circle and left, unfastened, as the car operated."

"The Oldsmobile ran in this manner for 12 hours a day for four days in weather that ranged zero temperature. The total mileage for the 48 hours was 162 miles, and the gas consumption averaged 23.7 miles per gallon. The unfastened steering wheel and the quietness with which the engine operated caused many of those who saw the demonstration to believe the car was controlled and operated by wireless."

BAN "FLEA HOP" COLUMBUS, Ind., Feb. 7.—The "flea hop" won't be danced here. Not that it is considered immoral. It was banned at the Elks Club because the vibration caused by the constant shuffling of feet in unison endangered the building.

LIQUOR GOING UP TOKIO, Feb. 7.—All the hotels here are raising the prices of liquors because of higher tariff rates.

Rail Motor Coaches In 1923 but 10 railroads were listed as operating motor rail coaches. In January, 1924, the number had increased to 157, an apparent increase of 300 per cent.

For Patrons Only A New York department store has a garage where shoppers may park their cars. While the cars are in this garage, they are fully covered by the store owners against fire, theft, personal liability and property damage.

Big Visiting List More than 1,000,000 tourists are expected to enter California in 1925, according to a study made by the Automobile Club of Southern California. The prediction is based on the normal increase of travel along transcontinental roads.

Balloons Increase Eighteen per cent of the cord tire production consists of balloons, according to the Rubber Association of America. One of the largest balloon tire manufacturers, however, is not included in its report.

SKIDDING CAUSED BY TOO FREE USE OF AUTO BRAKES

BY ISRAEL KLEIN (NEA Service Writer)

Motorists use their brakes too liberally. That's the chief cause for skidding. An automobile will skid on slippery pavement when the front wheels are turned the slightest out of the forward direction, the clutch is out and the brakes are applied. The back wheels, supporting the heavier half of the auto in most cases, become locked, cannot hold against the pavement, and carry the car on in the original direction regardless of front wheel direction.

Even when the front wheels are directed straight forward, if the car is riding along on a slippery road that slopes to the ditch, releasing the clutch and applying the brakes mean case takes the easiest course—toward the ditch—and the best driver can't stop such a slide once it's started.

Here lies the real danger. Motorists are told to steer their cars in the direction of the skid. But if the car is skidding toward a ditch, and the motorist tries to steer his car that way he is sure to go in, one way or the other.

There is no escape from such a skid. There is a preventive, as there is for any kind of skid.

That is—drive carefully, turn slowly with clutch in, keep the engine pulling the car, apply the brakes slowly and carefully.

With the clutch engaged, the engine controls the car. Brakes may then be applied easily, without letting out the clutch. Then, if the rear does begin to skid, the engine will keep the wheels turning in an effort to drive them out of the skid.

Curves should be taken with the clutch engaged, and the gears in second, or low. The brakes need not be touched.

If the car is going at a good rate of speed and necessity for slowing up or stopping is seen ahead, take your foot off the throttle and let the engine slow up the car. The brakes may be applied and released with short, easy strokes of the pedal. But the clutch should remain in until the driver is certain just another slight touch of the brake pedal would bring the car to a complete stop.

The best precaution against skidding is to avoid a sudden change in direction. Turns should be made slowly and as widely as possible.

In Emergencies If the emergency arises at which

a sudden turn must be made, take your foot off the throttle and apply both brakes, emergency and service while the clutch is still engaged. You will skid, but not as much as you would if the clutch were out. Don't try to shift suddenly into low or reverse. There would be nothing left of your gears if you did. Keep six of street car tracks, but if you happen to slide into them, this is how to get out: Slow down, shift into low gear, and when you have clear space to right and left of you, suddenly swerve your wheels to the right. You will skid a little, but not enough to harm, and the car will be out of the tracks.

Method of Taking Off Lights Given

It is seldom that a headlight rim can be removed freely after being undisturbed for a season or so. Either rust or paint will hold it in place so that to detach seems impossible.

A mechanic says he has removed the most difficult with ease by using a tire strap and screw driver or small pinch bar. Here is how he does it: Place strap around the rim, with buckle to the right. Draw strap end through tightly, folding back to the left. Wrap a soft wire loop around the buckle and strap; then place the screw driver or pinch bar through the wire loop and lift as in using a pipe wrench.

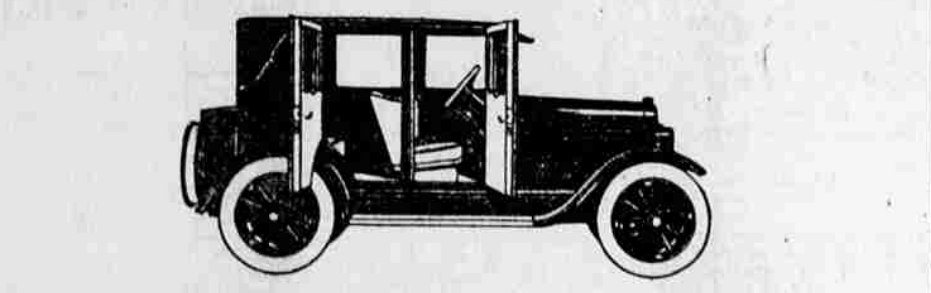
The same method may be used in removing radiator caps or other parts that will not withstand the jaws of a pipe wrench.—American Automobile Digest.

STOP Children's Cough
with **FOLEY'S HONEY TAR**
Established 1875
No opiates—ingredients printed on the wrapper.
Children like it. Largest selling cough medicine in the world.
Dr. Ashton for Chiropractic
Opposite
theater. Phone 860.

Wood and Coal
Wood under cover any length
King Coal Oak
Cord Wood Ash
Slabwood Maple
MANERUD HUNTINGTON FUEL CO.
1st National Bank Bldg.
Room 24
Phone 651

WHY EXPERIMENT?
Buy the best, Aberdeen Best in the west
"Peacock Rock Springs" and Gasco Briquets.
RAINIER COAL CO.
Phone 412 15 E. 7th St.

S. B. FINNEGAN
Machine—Blacksmithing
Soil Truck Tires; Auto and Truck Springs; Auto Wheels and Rims; Oxyacetylene Welding
We carry carbide in cans; also blacksmith coal, and oxygen in tanks.



World's Lowest Priced Closed Car

with Doors Front and Rear

\$585

f.o.b. Toledo

Sales Have Trebled in 30 Days
There is simply no let-up, and no sign of a let-up, in the volume of orders being placed for the remarkable Overland Coupe-Sedan—the only four-passenger closed car priced under \$600 having a modern sliding gear transmission, foot accelerator, speedometer, Auto-Lite starting and lighting system and disc type clutch.

Both the front and rear seats of this Overland Coupe-Sedan adjust backward and forward for the utmost comfort of all passengers. With the removable rear seat and upholstery taken out, you have 50 cubic feet of clear, square carrying space for anything and everything. And the seats and upholstery make up into a full-length comfortable bed, Pullman style, inside the car—for camping trips. Trunk at rear at small extra cost. Easy terms.

4 Door Sedan \$715
ALL-STEEL

OVERLAND Coupe Sedan

West and Sons Motor Co.
9th and Pearl Phone 592

WILLYS-OVERLAND FINE MOTOR CARS

Quick Starting

SHELL GASOLINE

When minutes count there is no substitute for Quick Starting Shell Gasoline

SHELL COMPANY OF CALIFORNIA

Quick Starting Quality
originated by **SHELL**
maintained by **SHELL**
sold everywhere by **SHELL**