

## TIMELY TECHNICAL TIPS

## By FRANK FITZPATRICK

If cracks appear in part No. 2853, the front cross member (shown in Fig. 1-A) it is the result of the front spring clip nuts Fig. 1-B

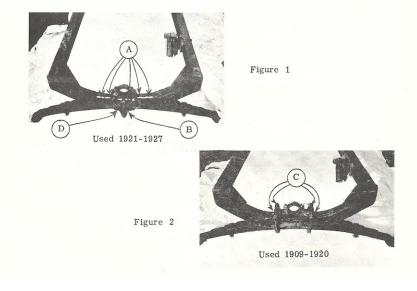
and Fig. 2-C not being properly tightened. When the nuts are loose, that gives the front spring an added leverage against the frame's front cross member. The nuts should be checked every winter or spring and if they become loose, through the previous year's driv-ing, then they can be tightened properly.

Cracks in the frame's rear cross members rarely happen, yet the nuts on the rear spring clips should be checked and tightened, if necessary, at the same time as the front spring clip nuts to 75 foot pound torque.

Broken spring leafs, in both front and rear springs, can be due to loose spring clip nuts. After two years of driving, and torqued

After two years of driving, and torqued to 75 foot pounds, the springs are not likely to develop "loose play" but still should be checked after each year's run. Always install the smooth side of part No. 3810 (See Fig. 1-D) Front Spring Clip Bar against the spring. This bar is used on the 1921 of care and trucks Always install octeor

1921-27 cars and trucks. Always install cotter pins in the spring clips after tightening the nuts.



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The instructions from the Ford Motor Company on lubrication on the front (Parts No. 3800, 3800-B and 1151) and rear (Parts No. 3824, 3824-B and 1077) springs were to disassemble the springs, clean off any rust, apply graphite grease and reassemble.

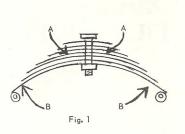
However, they did not apply that type grease in the spring leaves in production. A light motor oil was applied at the factory. The application of graphite grease on the spring leaves gave a "softer" ride but in many cases it was "too soft" and would "bottom" (contact the axles) on rough roads, especially when near or full of passengers.

Leaf spring manufacturers took into consideration the friction of spring leaves rubbing together when designing the resilience of the ride to the car passengers.

Experience over many years of searching for a good method of lubricating the springs produced one that is very good and easy to apply. It is not necessary to remove the springs unless they are badly rusted. Then they should be removed and cleaned and reassembled.

Use a can of 3-in-1 oil that can be purchased at most hardware stores or gasoline service stations. Start as close as possible to the frame cross members (Fig. 1-A), squirt the 3-in-1 oil on the sides, front and back of the spring. Be generous with the oil. Too much can't harm anything. Then work toward the end of the spring (Fig. 1-B). The same application should be made to both the front and back springs and to the front and back of each spring.

Then drive the car over some rough streets or roads, if possible, with a part or full load of passengers. The speed does not have to be great, 10 to 20 miles per hour, depending on the condition of the road surface.



Drive one to three miles and apply 3-in-1 oil again. Repeat several times or until the springs are flexible. This can be tested by standing on the running board, with no passengers in the car, and with your hand or hands grasp the top bow on open cars, or the body pillar on closed cars; then "swing" your body out and down to make the car body "rock." Repeat this movement a few times, timing the swing of your body with the rock of the car body. Try this before you apply the 3-in-1 oil to the spring leaves, then after you have made a few applications and see the difference.

All oils have some capillary action (a crawling effect in all directions) but the 3-in-1 oil contains ingredients that give it greater capillary action.

The 3-in-1 oil can be applied before going on a tour and if you want the springs to look clean at the meet it can be wiped with a cloth when you arrive.

A good rule to follow is to apply 3-in-1 oil every 200 miles or once a month. It will sure help the ride.

## Spring Padding

One often-overlooked area when restoring a Model T is the area where the frame and front end and rear springs come into contact. It seems that many Model T's have nothing between the top of the spring and the frame to act as a cushion. Ford ALWAYS placed a pad between the spring and the frame. I have seen many frames that are cracked and broken, and it appears that this pad was either gone or never installed, allowing the frame to crystallize and crack.

The simple solution is to purchase a piece of belt leather and cut the leather to fit the top of the spring. Generally, the front spring requires a leather strap 11/2" by 6" and the rear spring strap is 2" by 12". Cut a hole in the pad to accommodate the spring bolt and install.

One other place a leather pad is desirable to reduce vibrations is between the frame and the mounting brackets on the pan or crankcase. The two crankcase ears nearest to the floorboards sit directly on the frame, and over time wear into the frame. Make pads similar to the frame/spring pads and place between crankcase ears and the frame.