TECHNICAL TALK

Do your Light Fifteen door handles have a mind of their own? Our Editor is never satisfied in his search for 'Technical Tips' for 'Front Drive', so I have 'volunteered' to investigate the problem of the Door Handle Droop, which has plagued my English Light Fifteen for ever.

It results in the doors inadvertently locking themselves on the rear doors and unlocking on the front passenger door. It has frustrated me, but more importantly my wife, Clare, for years, and I suspect a few other owners of English Light Fifteens.

I decided to investigate the front passenger side door first. This involved the removal of all handles, inside and out, door linings and trim strips to lay bare the mechanism location – as shown in photo #1. Six countersunk screws can now be accessed for removal of whatever lies within!

The interior door handle and window winder, by the way, can be removed by pressing the inside spring-loaded ferrel forward to expose a retaining pin. This, when pushed out, will release these two items which may be worse for wear and these I will deal with later.

It was pleasing to find that with the removal of the six countersunk screws the whole latch mechanism can be withdrawn easily. It consists of two assemblies connected by a lever which can be readily disengaged [photo #2].

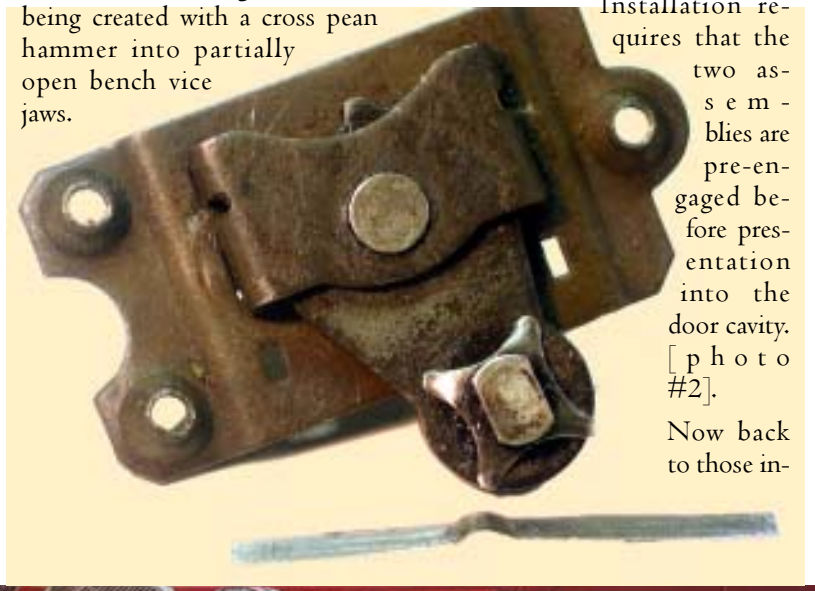
The top assembly is directly related to the interior door handle. I was very pleased with my deduction to observe that whilst there existed a cam profile lever on the spindle axis, with two engagement notches, there was no corresponding engaging device [photo #3]. This was a good start.

This assembly suggested that a spring had once operated within the assembly to provide a positive two-position location for our door handle. Anyway, I made a spring , in fact, I made two, and perhaps I should have experimented with a *third.*

Photo #3 shows a spring with a central engagement notch. This I cut from springy stainless steel 5mm wide x 160mm long . The notch being created with a cross pean hammer into partially open bench vice jaws.

I made my first spring 0.500mm stock, which functioned OK, but had very little positive feel. My second spring from 0.750mm stock was much better with a positive click feel. I did not have any 1.000mm stock to try and it could be the way to go, but subsequent fitting may be more difficult. [Perhaps two 0.500 springs?]

Photo #4 shows the spring fitted, which was not too difficult, with the two protruding ends bent after assembly – making sure that the notch is central. I do not know what the original spring looked like, but it would be similar to the one shown. I suspect it would be manufactured from carbon-spring steel and manufactured from too thick a stock , resulting in a high rate, over stressed, short life situation.



Installation requires that the two assemblies are pre-engaged before presentation into the door cavity. [photo #2].

Now back to those in-

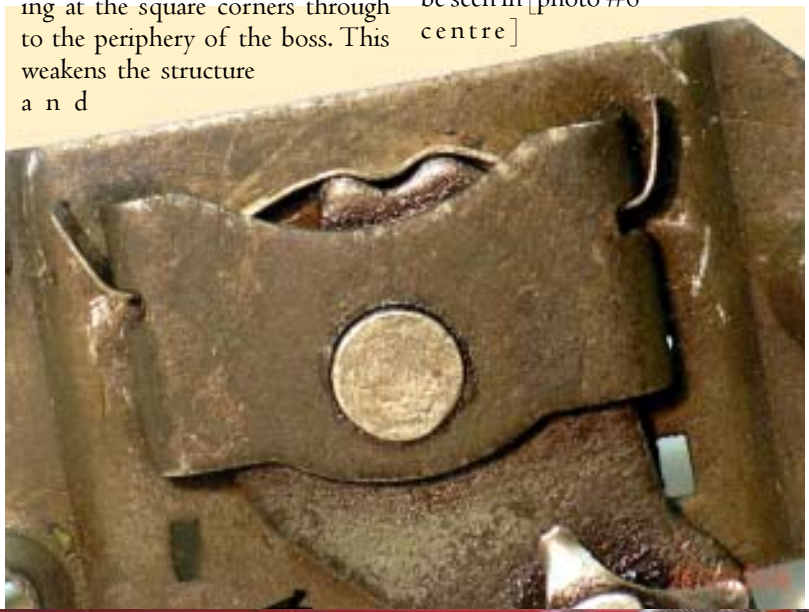
Technical Talk

side door handles and window winders. The extension bosses of these components have an interior square hole to locate upon the male operating spindles. The bosses do not completely react the operating torque but serve to hold the winder and handle in position when the cross pin is inserted. The design is poor and when subjected to the 'rock and roll' of the agricultural tolerances this soon takes its toll. The window winder is further disadvantage by the fact that it locates upon a 10mm square spindle. [The door handle is 9.5mm.] and this is short on material in this vital area.

Failure occurs in the way of cracking at the square corners through to the periphery of the boss. This weakens the structure and eventually a breakout can result with detachment from the spindle. This happened to me some years back [Photo #5 second from left] and I had forgotten, until this exercise, that I had undertaken a reinforcing procedure on these components. It is gratifying to find that it has been successful and [photo #5] shows what I did].

A bush with a 15mm bore and a 17mm outside diameter [with cross holes for the locating pins] was pushed over the vulnerable bosses with an application of Loctite to consummate the marriage!

If the bosses are in good condition, then no harm is done and it is a good precaution anyway, but as can be seen in [photo #6 centre]



even if one segment of the square has been lost then this winder or lever can still be recovered and put to work with confidence. This one has worked for many years.

It is a requirement that the ferrel must fit over the new 17mm diameter boss, which is achieved by a minor enlargement with a hand file. Not a big deal.

Now that the passenger door has been fixed, there remain the rear doors. I suspect, and hope, the solution will be similar?!

What about those French Tractions? I wonder if they have similar door problems?

Bernard Hadaway

Keen to know more? Bernie will be talking about door handles – both front and rear at the club's May meeting on Wednesday May 26. Come along and learn from an expert or just to throw him some curly questions.