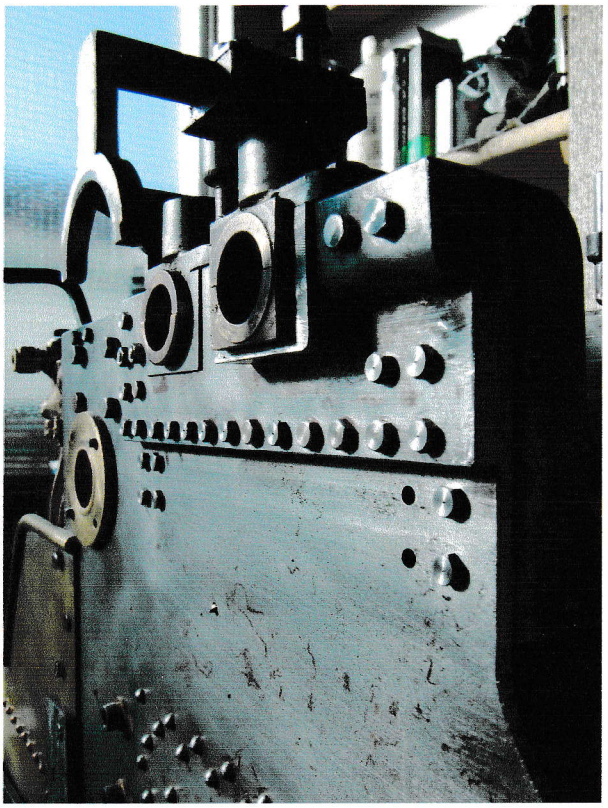
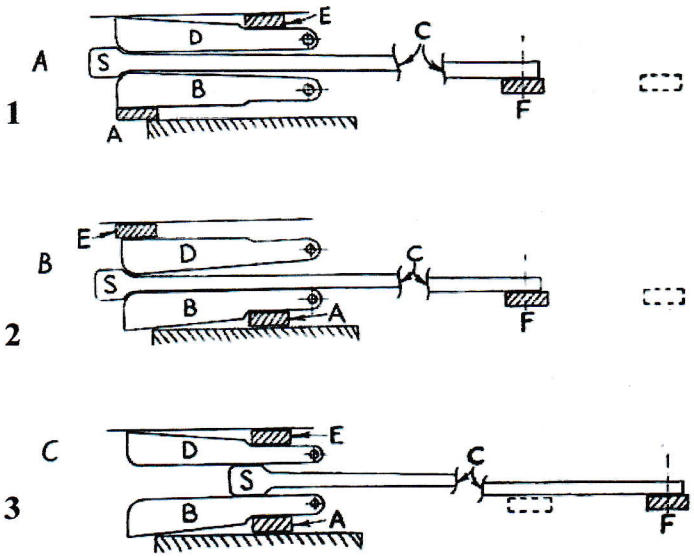
Speeds and gears

With the full-sized engine running at 300 r.p.m., road speeds were 2½, 4 and 6½ m.p.h., depending on the gear selection. In actual practice the top speed could be much higher –16 to 18 m.p.h. was not unknown. Three levers controlled the choice of gear selection and an interlock system prevented any attempt to select more than one gear at a time. The system was a simple one and employed the use of two latches with an interconnecting rod. All have been reproduced on the model.

The picture (right) shows the bearings housings for the crankshaft and second-shaft. Both are mounted on a sub assembly, which may be separated from the main horn plates. Also visible is the gear-change fork for low gear





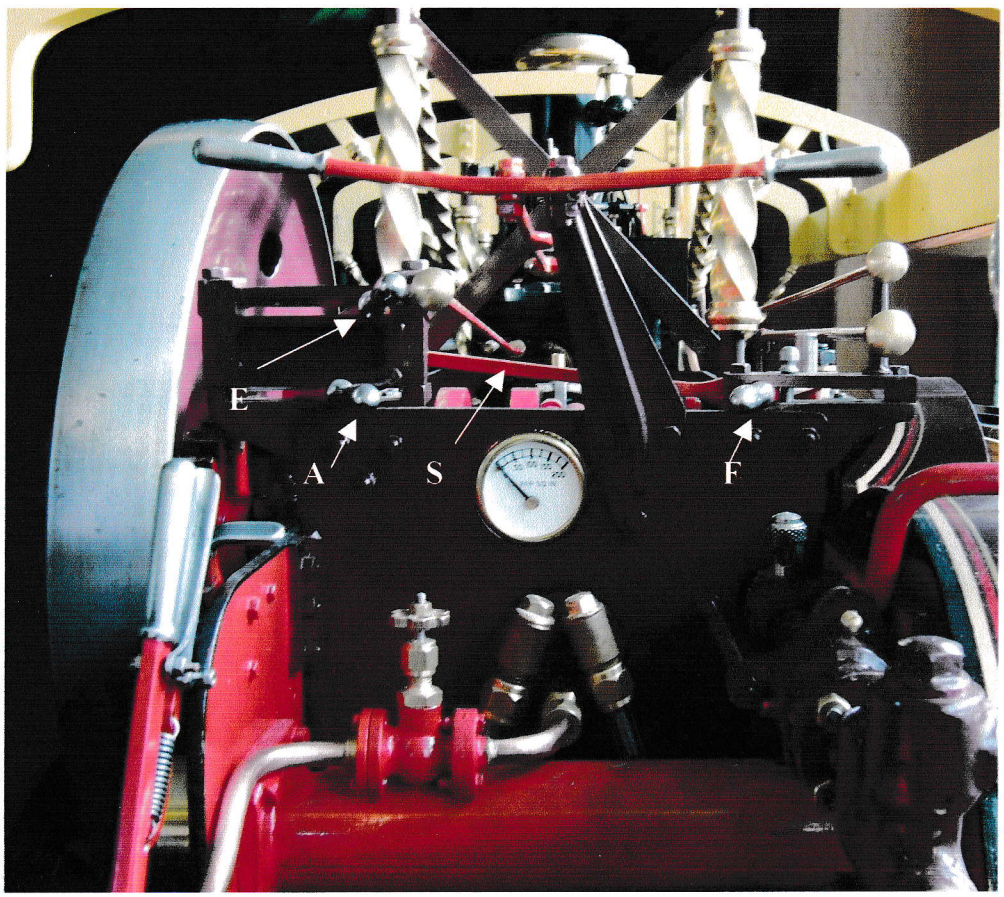
Sketch and description are by the late W. J. Hughes

The sketch (left) shows three positions (1, 2 and 3) for the gear selectors and their interlocking latches. The selector-levers are represented by A, E and F whilst the latches are D and B. An interconnection rod works between the two latches and selector lever F. This is shown as C; it has a "bulb" or swelling S at the left-hand end and is pinned to selector lever F, at its right-hand end. A description of how the system works is as follows.

In **fig** 1 we see the levers set with the second speed engaged. Latch D prevents lever E from being moved, and the "bulb" S prevents lever F from being moved.

Now if A is moved to the right to the position shown in **fig 2**, then latch B can drop; so can C, and so can latch D. Now lever E can be moved to the left, so engaging third (extra fast) speed.

Alternatively, leaving A and E both in disengaged position, lever F can be moved to the right as in **fig 3**, thus engaging first (slow) speed. This will bring "bulb" S between latches D and B, as shown, thus effectively preventing A or E from being moved.



The picture (left) shows the gear selectors E, A and F along with interconnecting bar S. Latches D and B are hidden by the selector gates. No gear has been selected.