The three-point suspension device in essence consists of the upper and the two lower control arms. The latter are connected with the lifting arms by means of lifting rods; the lifting arms are operated by a lifting shaft driven from a gear. The three couplings shown in Fig. 304 serve for the attachment of the trailed implements. The three-point suspension has proved a success in modern tractor operation and is increasingly preferred because it is simple in operation and prime costs are relatively low. Further it contributes considerably towards an increase in productivity.

(b) Four-point Suspension

This suspension device, also known as swinging rail, is available in various designs. Implements are attached both by means of the front rail and the control arms or the coupling hooks. Fig. 305 shows a swinging frame provided with a manual control.

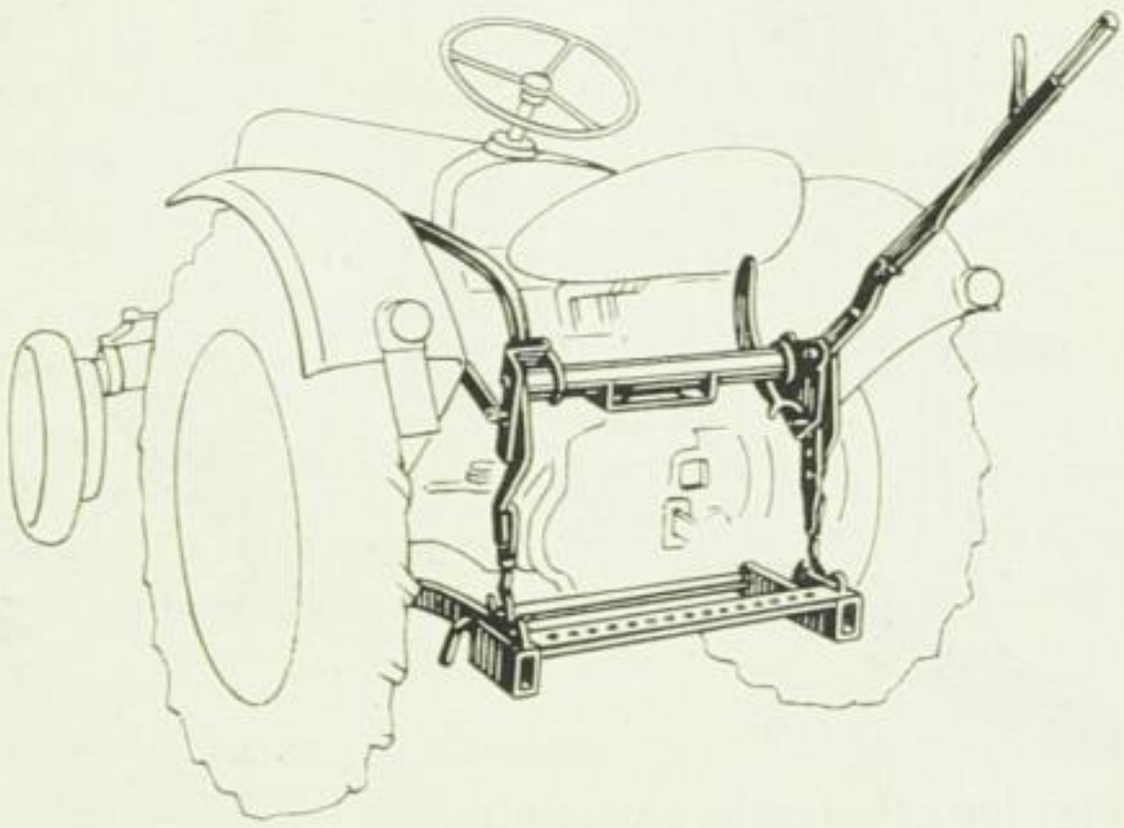

Fig. 305. Swinging frame with manual control

(4) Power Lifter for Operating Attached Implements

(a) General

Lifting and lowering attached implements both in transport or working positions, as well as the changing of the working depth, as frequently required in agriculture, require a special operator provided there is no power lifter available. To make full advantage of a tractor at reasonable costs, the industry has developed a power lifter which can be operated by the tractorist without interrupting the travel.

Power lifters can be operated mechanically, pneumatically or hydraulically. Mechanically and pneumatically operated lifters are in limited use only, whereas the oil-hydraulic power lifter is universally employed.