

Fig. 301 shows an attachment rail with hydraulic lifting device. Lateral movements are prevented by the laterally arranged bracing chains. To prevent the tractor from inadvertently moving backwards or to improve its stability when operating a winch, attachment rails are provided with sprags. When folded down on their hinges, they are pressed into the ground (Fig. 302).

### (3) Implement Couplings

#### (a) Three-point Suspension

Heavy agricultural implements coupled to the attachment rail exert a considerable load on the rear axle. As a result, the centre of gravity of the tractor is displaced.

For this reason it becomes necessary to use such an attachment device which ensures that the centre of gravity is about the centre of the tractor. This requirement is met by a three-point suspension device which can conveniently be mounted on any modern tractor. Fig. 303 shows diagrammatically the centres of gravity of a tractor with a simple hitching device and with the three-point suspension device.

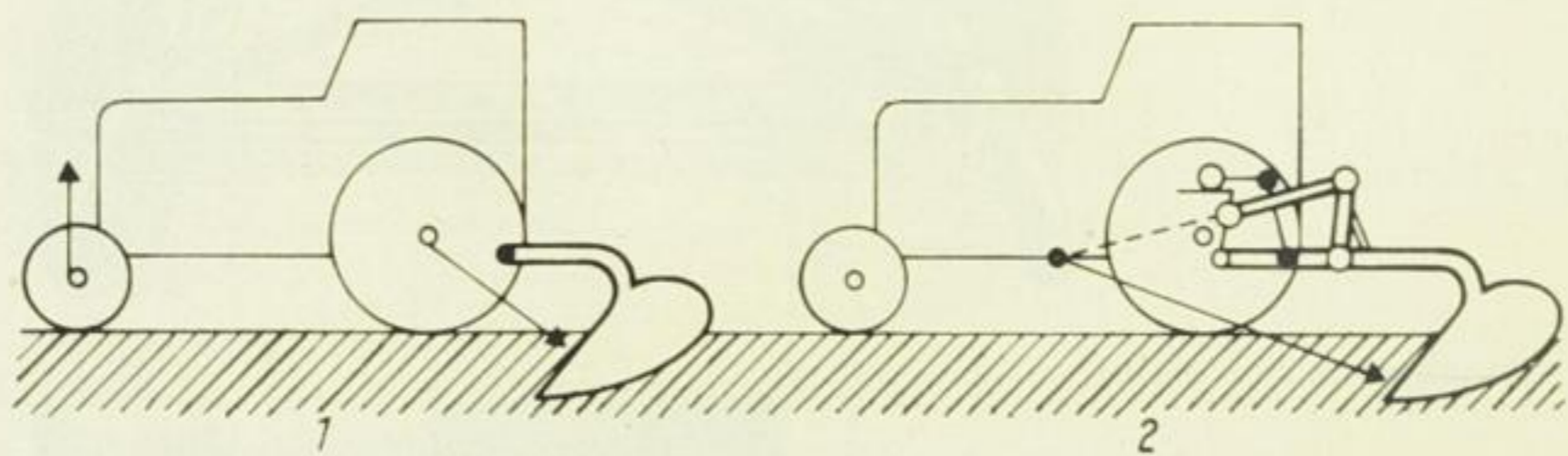
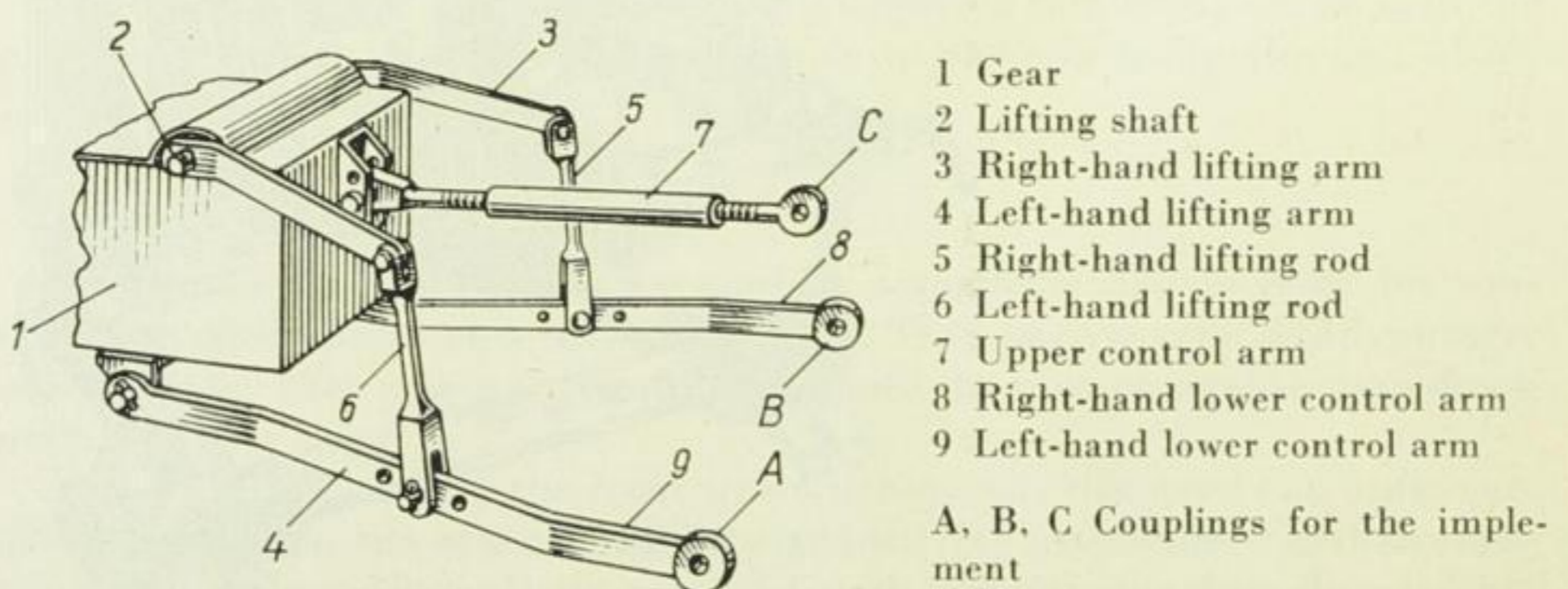


Fig. 303. Displacement of the centre of gravity

1 Without three-point suspension      2 With three-point suspension



- 1 Gear
  - 2 Lifting shaft
  - 3 Right-hand lifting arm
  - 4 Left-hand lifting arm
  - 5 Right-hand lifting rod
  - 6 Left-hand lifting rod
  - 7 Upper control arm
  - 8 Right-hand lower control arm
  - 9 Left-hand lower control arm
- A, B, C Couplings for the implement

Fig. 304. Diagrammatic representation of the three-point suspension