plants. The control device (**27**) also performs a damping function so as to prevent the work element (**8**) from bouncing on obstacles. Lastly, the work element (**8**) can be moved relative to the coupling support (**2**) between a work position, in which the work element (**8**) rests on the ground, a maneuvering position, in which the work element (**8**) is raised at some distance from the ground to pass over obstacles or plants that have already been worked, and a transport position, in which the work element (**8**) is maximally raised for easy transport of the machine (**20**) on open road or from one parcel to another.

Preferably, the control device (**27**) comprises at least one jack (**28**). The latter may be articulated between the coupling support (**2**) and one of the lower connecting-rod (**18**), upper connecting-rod (**17**) and central connecting-rod (**19**), as shown in FIGS. **1** to **3**. As shown in FIG. **4**, the jack (**28**) can also be articulated between two of the lower connecting-rod (**18**), upper connecting-rod (**17**) and central connecting-rod (**19**). The jack (**28**) may be hydraulic, pneumatic or electric. In the figures, a single hydraulic jack (**28**) is provided; it is articulated between the coupling support (**2**) and the central connecting-rod (**19**). The jack (**28**) is thus, over the majority of its length, advantageously housed in the space delimited by the different connecting-rods (**17**, **18** and **19**), which preserves the compactness of the coupling device (**1**). Furthermore, the jack (**28**) used has a relatively small length, since it is proportionate to the lengths of the connecting-rods (**17**, **18** and **19**), the latter being rather short in light of the general dimensions of the coupling device (**1**) and the chassis (**6**). It should also be noted that the reduced pivoting angle of the arm (**4**) allows the jack (**28**) to work over a reduced travel, which contributes to a shorter jack. It is therefore possible to use a single jack (**28**) with small dimensions with a relatively low cost. Thus arranged, the jack (**28**) frees the viewing field for the driver, the area situated above the left and right arms (**4**) being unoccupied. This is clearly shown by FIG. **5**. Lastly, the use of a single jack (**28**) simplifies the production of the control device (**27**) by reducing the number of pipes, valves and connections.

As shown in FIG. **6**, a fluid circuit (**29**) connects the jack (**28**), an accumulator (**30**) and a lifting cylinder (**31**) to each other. The accumulator (**30**) comprises a sphere whereof the inner volume is separated into two chambers by a flexible membrane, one chamber containing a pressurized gas such as nitrogen, the other chamber containing oil. The lifting cylinder (**31**) has the form of a barrel in which a piston can slide. The piston thus delimits two chambers of variable volume. The circuit (**29**) comprises a duct (**32**) that is divided into a first branch (**33**) and a second branch (**34**). The jack (**28**), which is preferably single-acting, is supplied with oil by the duct (**32**) and the first branch (**33**) is connected to a three-way cock (**35**). This first branch (**33**) supports the accumulator (**30**) as well as a pressure gauge (**36**). The second branch (**34**) is connected to one chamber of the lifting cylinder (**31**), the other chamber of the lifting cylinder (**31**) being connected to the three-way cock (**35**). The three-way cock (**35**) is connected to a hydraulic distributor, not shown, for supplying oil from the tractor (**3**). In order to move the chassis (**6**) relative to the coupling support (**2**), the three-way cock (**35**) is oriented so as to allow the oil to flow between the distributor and the lifting cylinder (**31**) only. A position of the distributor then makes it possible to send the oil into the lifting cylinder (**31**), the piston of which translates and moves a predetermined volume of oil toward the jack (**28**). This causes the lifting of the chassis (**6**) relative to the coupling support (**2**). Another position of the distributor makes it possible to return the oil from the lifting cylinder (**31**) to a tank, and the chassis (**6**) lowers under its own weight. The three-way cock (**35**) can be oriented so as to allow the oil to flow between the distributor and the first branch (**33**) only. By acting on the distributor, oil can then be sent into the first branch (**33**). Due to the orientation of the three-way cock (**35**), the piston of the lifting cylinder (**31**) remains immobile, resulting in increased pressure in the accumulator (**30**) and in the jack (**28**), and therefore increased lightening. When during work, the length of the jack (**28**) varies following movements of the chassis (**6**), it moves a relatively small volume of fluid, since the length and travel of the jack (**28**) are reduced. The damping can therefore keep a substantially constant value with an accumulator (**30**) having a reasonable size.

The invention is of course not limited to the example embodiments described above and shown in the attached figures. Changes remain possible, in particular regarding the composition or number of the various elements or by substituting technical equivalents, without going beyond the scope of protection.

The invention claimed is:

1. A coupling device for an agricultural machine, comprising:

a coupling support that can be mounted on a three-point hitch of a tractor;

at least one arm articulated to the coupling support and protruding from the coupling support in a direction parallel to a longitudinal center line of the tractor, the arm carrying, in an articulated manner, a chassis provided to carry a work element; and

an upper connecting-rod, a lower connecting-rod, and a central connecting-rod,

wherein each of the upper connecting-rod and lower connecting-rod are articulated to the coupling support and to the central connecting-rod to form, projected in a vertical plane parallel to the longitudinal center line of the tractor, a deformable quadrilateral, and the central connecting-rod is articulated to the chassis.

2. A coupling device according to claim **1**, wherein the arm and at least one of the upper connecting-rod and lower connecting-rod protrude from the coupling support in a same direction parallel to the longitudinal center line of the tractor.

3. A coupling device according to claim **1**, wherein the arm and/or at least one of the upper connecting-rod and lower connecting-rod protrude from the coupling support in the direction parallel to the longitudinal center line of the tractor.

4. A coupling device according to claim **1**, wherein the arm is connected to the chassis by a front articulation and to the coupling support by a rear articulation, and the front articulation is, relative to the ground, placed at a greater distance than the rear articulation irrespective of the position of the chassis relative to the coupling support.

5. A coupling device according to claim **1**, wherein the work element comprises a front part, the arm is connected to the chassis by a front articulation, and the front articulation is situated above the front part.

6. A coupling device according to claim **1**, wherein the arm has an upwardly bent shape starting from the coupling support.

7. A coupling device according to claim **4**, wherein the upper connecting-rod, the lower connecting-rod, and the central connecting-rod extend mostly above a substantially horizontal plane passing through the front articulation.

8. A coupling device according to claim **1**, wherein the upper connecting-rod and the lower connecting-rod are superposed.

9. A coupling device according to claim **8**, wherein the upper connecting-rod and the lower connecting-rod are, start-