

In tractors cone clutches, single-plate clutches, multiple-plate clutches, and hydraulic couplings are used.

(b) Types of Clutches

**Cone Clutch.** Tractors of older designs may still be equipped with a cone clutch. Fig. 196 demonstrates that a cone is pressed into the tapered recess of a flywheel by a spring. The cone of the clutch is provided with a clutch material which produces the required friction by virtue of which a clutch functions.

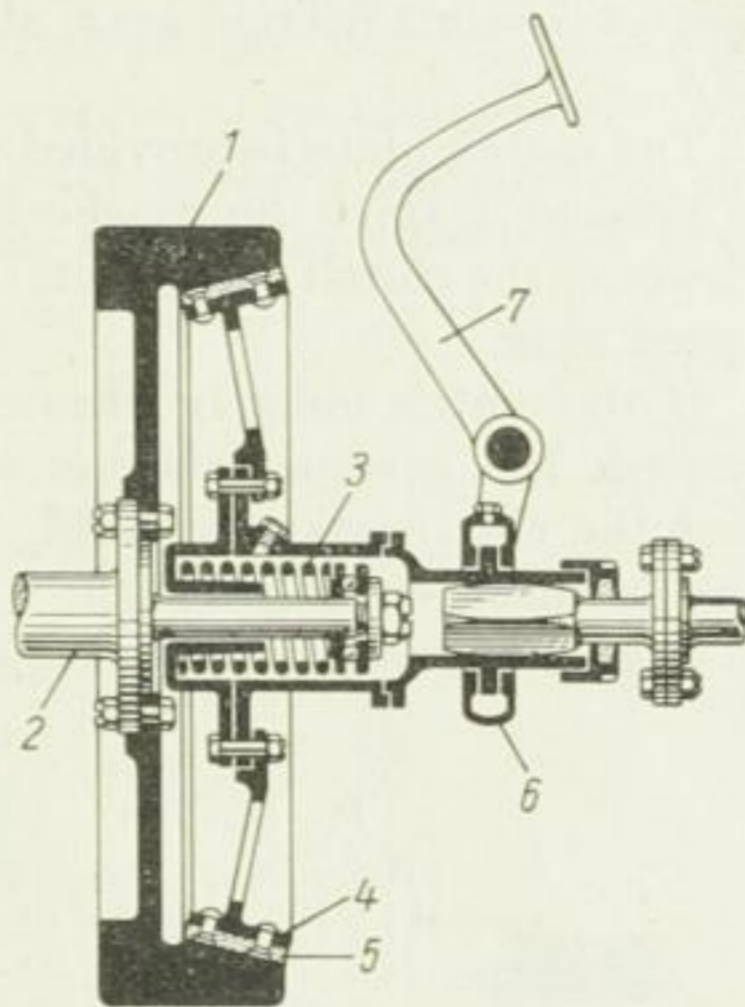


Fig. 196. Cone clutch

- |                 |                         |
|-----------------|-------------------------|
| 1 Flywheel      | 5 Clutch facing         |
| 2 Crankshaft    | 6 Clutch release device |
| 3 Clutch spring | 7 Clutch pedal          |
| 4 Clutch cone   |                         |

**Single-plate Clutch.** In automotive engineering primarily plate-type clutches are used. There are single-plate clutches and multi-plate clutches which may be accommodated in an oil bath or be of the dry-plate type. The dry-plate clutch is preferably used in the tractor-building industry.

In this field, the single-plate clutch has proved successful because of its simple design and reliable function and because it meets the specific requirements of tractor operation.

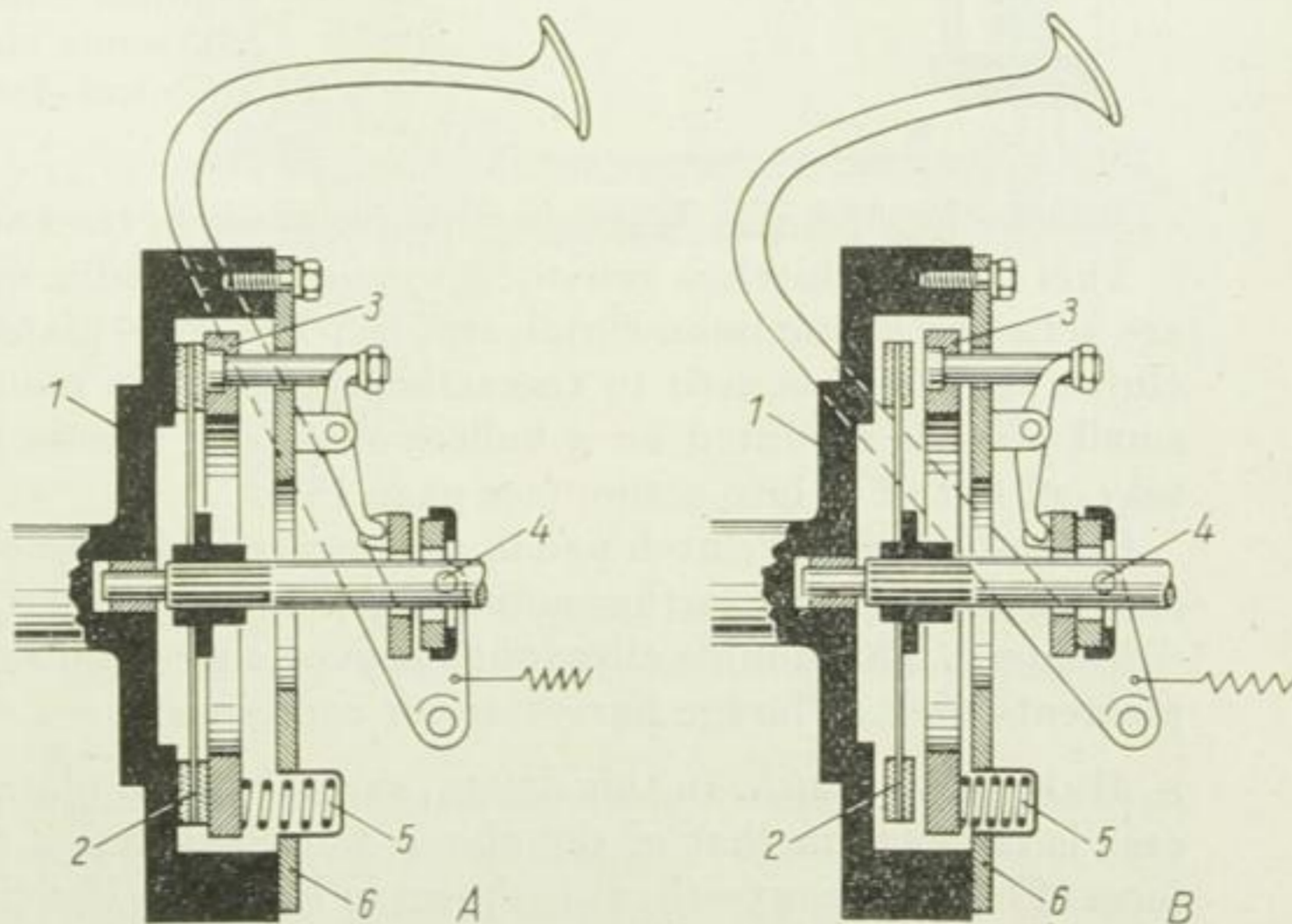


Fig. 197. Single-plate clutch

- |  |
|--|
| A Engaged                                |
| B Disengaged                             |
| 1 Flywheel                               |
| 2 Clutch disk faced with clutch material |
| 3 Pressure plate                         |
| 4 Release mechanism                      |
| 5 Clutch spring                          |
| 6 Cover plate                            |