

## Types of Gear Trains:

Following are the different types of gear trains, depending upon the arrangement of wheels:

1. Simple gear train,
2. Compound gear train,
3. Reverted gear train, and
4. Epicyclic gear train.

In the first three types of gear trains, the axes of the shafts over which the gears are mounted are fixed relative to each other. But in case of epicyclic gear trains, the axes of the shafts on which the gears are mounted may move relative to a fixed axis.

### Simple Gear Train:

When there is only one gear on each shaft, as shown in Fig. 13.1, it is known as **simple gear train**. The gears are represented by their pitch circles. When the distance between the two shafts is small, the two gears 1 and 2 are made to mesh with each other to transmit motion from one shaft to the other, as shown in Fig. 13.1 (a). Since the gear 1 drives the gear 2, therefore gear 1 is called the **driver** and the gear 2 is called the **driven** or **follower**. It may be noted that the motion of the driven gear is opposite to the motion of driving gear.

