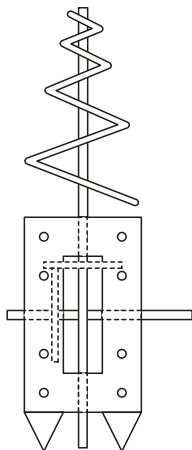
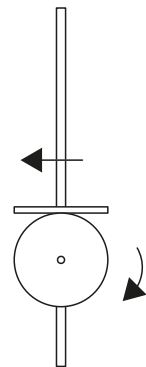


1. When you rotate the axle you apply a turning force to it which is transferred to the first disc. Because the diameter of the disc is bigger than that of the axle the distance the force travels is increased.

2. The force of friction acting between the two surfaces allows the force to be transferred from one disc to the other. Without any friction the first wheel would slip against the second wheel and it would not turn.

3. The force of gravity is pushing down on the horizontal disc keeping it in contact with the vertical disc.



4. Turning the axle creates a horizontal turning force which becomes a vertical turning force through the contact between the two discs.

5. The two discs are working in the same way as gears work. The only difference is that gears have teeth. The teeth of two gears working together 'mesh' as they rotate together so they cannot slip.