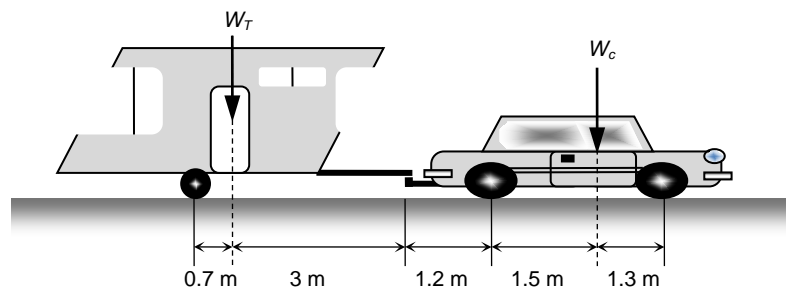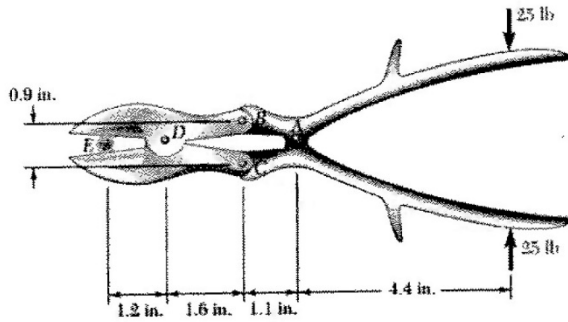## Example

The mass of the car in the figure is 1250 kg and the mass of the trailer is 1000 kg. The trailer hitch connecting the car to the trailer is a ball and socket. Find the reactions at the wheels.
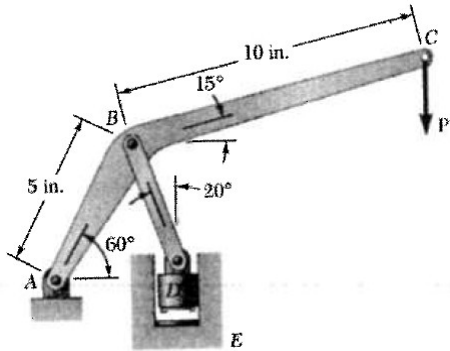
Example

The device shown in the figure is called a bone rongeur and is used in surgical procedures to cut small bones. For the 25-lb forces applied to the instrument at the locations shown, find the force applied to the bone at E.

Example

The figure shows a press used to emboss a seal at E. If the force $P = 60$ lb, find the reaction at A and the vertical component of the force exerted on the seal.

Example

The telescoping arm ABC is used to elevate workers on a platform. The combined mass of the platform and the workers is 240 kg with a combined center of gravity at C. If the angle $\theta = 24°$, find the force exerted by the hydraulic cylinder BD on the arm and the reaction at A.