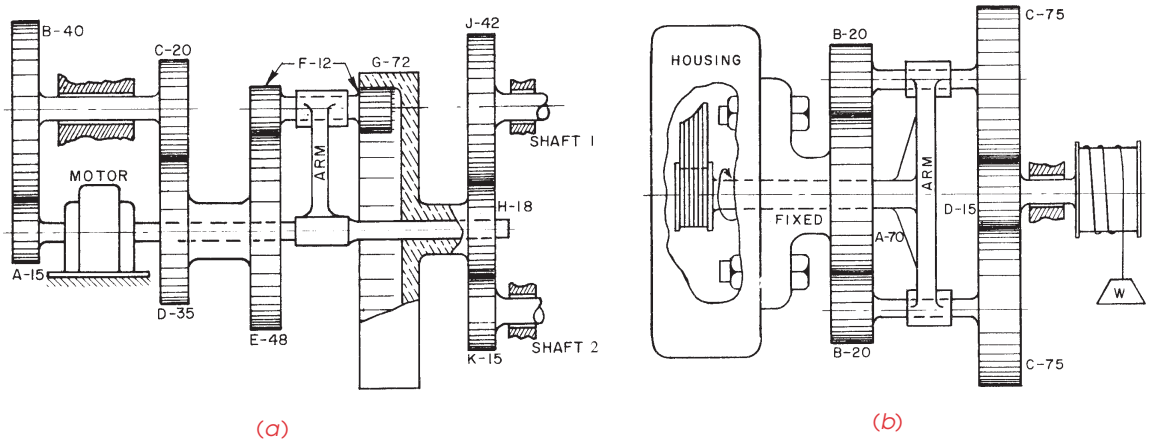

FIGURE P9-7

Problems 9-39 to 9-40 *From P. H. Hill and W. P. Rule. (1960). Mechanisms: Analysis and Design, with permission*

*†9-39 Figure P9-7a (p. 538) shows a gear train containing both compound-reverted and epicyclic stages. Tooth numbers are in the figure. The motor is driven CW at 1500 rpm. Find the speeds of shafts 1 and 2.

†9-40 Figure P9-7b shows an epicyclic train used to drive a winch drum. The arm is driven at 250 rpm CCW and gear *A*, on shaft 2, is fixed to ground. Find speed and direction of the drum on shaft 1. What is train efficiency if the basic gearsets have $E_0 = 0.98$?

* Answers in Appendix F.

† These problems are suited to solution using *Mathcad, Matlab,* or T*KSolver* equation solver programs.