

in the upper diagram the piston velocity is zero at the dead points, is equal to that of the crank pin when the crank is ver-

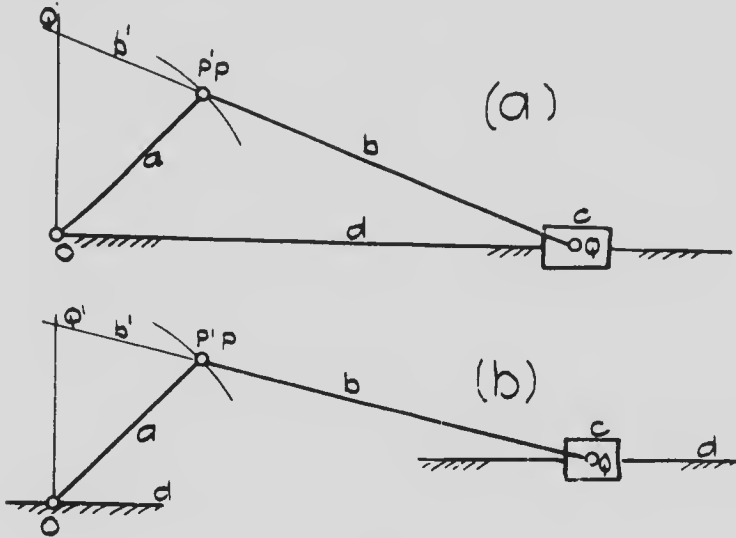


Fig. 8.

tical, and has a maximum value e when the crank pin is slightly to the right of the vertical through O . For the lower diagram

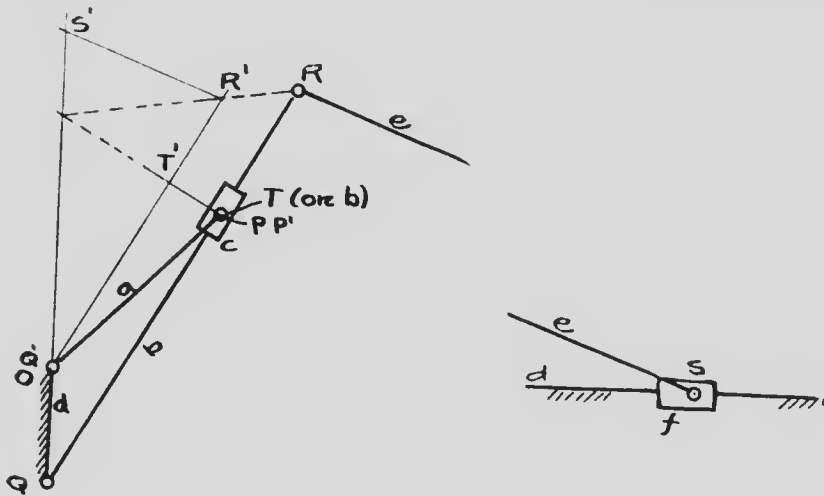


Fig. 9.

the piston velocity is also that of the crank pin when the crank is vertical.

Fig. 9 shows the Whitworth quick-return motion, which is