

Stage IV. The left-foot-step-forward throw with trunk rotation and horizontal adduction in the arm's forward swing. This throw is the mature throw (Type VI) and is found in all boys from  $6\frac{1}{2}$  years up. Most of the girls from  $6\frac{1}{2}$  years up show this form but with arm movements incompletely developed (Type V).

4. The outstanding trend disclosed by the movement types is change from movements in the antero-posterior plane to movements largely in the horizontal plane.
5. The outstanding trend disclosed by the timing features is a progressively shorter period of acceleration and an earlier release. This trend attends the change in movement types.
6. Overlapping of features into chronologically adjacent types demonstrates emergence of one stage into the next.
7. Comparison of the girls' performances with boys' performances indicates sex similarity in the basic growth pattern of the age and sex differences in the performance level of that pattern.
8. Evidence suggests that the arm action is largely responsible for the speed imparted to hand and ball.
9. The average acceleration per second throughout the interval from the beginning of the forward swing to the release ranges from 18 feet to 1200 feet.
10. Four means of evaluating the throw have been diversely arrived at:
  - 1) velocity of the ball,
  - 2) movement performance score,
  - 3) timing score,
  - 4) acceleration of the hand with ball.Relationships between ranks assigned to these evaluations and to age expressed in rank order intercorrelations range from  $+.81\pm.043$  to  $+.95\pm.012$  for the entire group; from  $+.83\pm.055$  to  $+.98\pm.007$  for the boys' group; and from  $+.77\pm.072$  to  $+.95\pm.017$  for the girls' group.