

formance. When the graph indicates need of more application a discussion between the tester and subject is indicated. The way is often paved for instruction, inspiration and improved application. With repeated fatigue curve production there comes a smoothening out of the curves as the subject learns to apply himself.

Counting of pulse rates, like that of foot contacts, was done by the subjects. By use of a 3-2-1 starting signal each subject felt of his pulse and counted heart rates for ten seconds. Multiplication by six gave the minute heart rate. A ten second check of the pulse was made just before the first work period. Another check followed the tenth period; and additional checks were made at two, four, and six minutes after work ceased.

Samples of fatigue and improvement curves are shown here in Figure 1 for the purpose of illustration. The subject was a high school football player who was so much larger than most of his opponents that he seldom was called upon for "all out" effort. The habit of partial effort he developed was reflected in the first fatigue test. The first curve shows that he worked hard for two innings; then loafed for two periods; and finished with a production which clearly indicated that he had not done his best. His seventh curve showed he had moved towards the goal of consistently doing his utmost. The "Curve of Improvement" shown here is composed of the averages of fatigue curve performance compiled in the series of tests given this individual.