FATIGUE STUDY

The Elimination of Humanity’s Greatest

Unnecessary Waste

A FIRST STEP IN MOTION STUDY

BY

FRANK B. GILBRETH

Member of American Society of Mechanical Engineers

AND

LILLIAN M. GILBRETH, PH. D.

EASTON

HIVE PUBLISHING COMPANY

1973

FATIGUE STUDY

CHAPTER I

A DESCRIPTION AND GENERAL OUTLINE OF FATIGUE STUDY: WHAT MUST BE DONE

Fatigue Study and Waste.

 In “Motion Study” we stated: “There is no waste of any kind in the world that equals the waste from needless, ill-directed, and ineffective motions.” ¹ It is an aspect of wasted motions that we are discussing here. Wasted motions mean wasted effort and wasted time. One of the results of this waste is unnecessary fatigue, caused by unnecessary effort expended during time that must, as a result, be wasted. Time, a lifetime, is our principal inheritance. To waste any of it is to lose part of our principal asset. To waste time and to suffer from unnecessary fatigue simultaneously can be excused definitely. It is this fact that lies at the basis of the great unnecessary waste in accumulated fatigue.

 The trouble with these tired workers, then, is that their work has not been arranged in the least fatiguing manner nor in such a way that they could get the most rest and recovery in the least amount of idle time during the working hours. The ones whose heads are high and whose shoulders are thrown back may have been provided in some way with sufficient rest. The ones whose heads are bowed probably have not had the recovery time that they needed. It is possible that those who have had all the rest they needed have not produced as much as have the others. The remedy for this may not lie in shortening the rest, but in improving work methods. The waste in work not done, or in work done with the wrong method, is a serious economic waste. The waste in unnecessary fatigue is not only an economic waste, it is a waste of life, and it calls for immediate attention from every one of us, whether interested in the individual, the group or the economic prosperity of our country.

¹ See “Motion Study,” P.2