

GENERAL SCIENCE

# Need American Efficiency In Planning For Defense

## Germany's Industrial Techniques Were Largely Made in America; Our Task Now To Outplan All Plans

**W**ITH defense plans progressing speedily in Washington, even if the details necessarily are not too widely broadcast, there is prime need of the application of American-created principles of scientific management to the production for defense and armament.

The airplane used so effectively by Germany was essentially, even as recently developed, an American product in its scientific principles. Efficient organization for industrial planning and accomplishment with machines is American in its roots and finest flower.

With brutal purpose and dictated objectives, the German industrial organization was captured and put to work with deadly results. The irony of it is that the techniques used in German industry were largely made-in-America with the purpose of making men secure and free in their work.

Now America's task is to outplan all

other planning, in the words of Wallace Clark of New York, international industrial consultant, who spoke a few days ago at the Stevens Management Conference.

A French writer is quoted as saying that "What the democracies fail to realize is that they are up against planning—not Nazism or totalitarianism but a plan."

A high degree of proficiency is required to set up new producing plants or to change over existing facilities to meet new requirements. But Mr. Clark considers even more difficult the task of setting up a central coordination and control of this vast undertaking.

In this there are four steps, steps that are worth remembering because they are fundamental to doing anything efficiently in this busy world:

1. Securing agreement on what is to be done.

2. Formulating a program.
3. Fixing responsibility and providing the necessary equipment, materials and labor.
4. Carrying out the program in the time allowed.

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## Army, Navy Take Part In Defense Research

**B**RIG. GEN. G. V. Strong, assistant chief of staff of the Army, and Rear Admiral Harold G. Bowen, director of the Naval Research Laboratory, Anacostia, D. C., are the representatives of the War and Navy Departments upon the newly-created National Defense Research Committee charged by President Roosevelt with correlating and supporting "scientific research on the mechanisms and devices of warfare."

Dr. Richard C. Tolman of the California Institute of Technology was elected vice-chairman of the new committee at its first meeting, and Dr. Irvin Stewart, former Federal Communications Commissioner and chairman of the Committee on Scientific Aids to Learning, was made secretary.

Adoption of a resolution asking the cooperation of the National Academy of Sciences and the National Research Council in carrying out the duties of the committee was announced by Dr. Vannevar Bush, chairman of the committee and president of the Carnegie Institution of Washington. Other committee members are: President Karl T. Compton of Massachusetts Institute of Technology, President James B. Conant of Harvard University, Dr. Frank B. Jewett, president of the National Academy of Sciences, and Commissioner of Patents Conway P. Coe.

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ENGINEERING

## Launch Education Program On Use of Turret Lathes

See Front Cover

**T**HE BOTTLENECK in industrial production about war or peace supplies occurs in machine tools and the men to run them. It takes a long time to train a good machinist. Any aid in training of apprentices or increasing the skill of experienced operators will help America's rearmament program.

Although better known to the general public as builders of telescopes, the Warner & Swasey Company of Cleveland



**NATIONAL DEFENSE RESEARCH COMMITTEE**

The first meeting of the men who will correlate scientific research on mechanisms of warfare. They are: (seated, left to right) Brig. Gen. G. V. Strong, Dr. James B. Conant, Dr. Vannevar Bush, chairman of the committee, Dr. Richard C. Tolman, vice-chairman, Dr. Frank B. Jewett and (standing) Dr. Karl T. Compton, Dr. Irvin Stewart, secretary to the committee, and Rear Admiral Harold G. Bowen. Also on the committee is Commissioner of Patents Conway P. Coe.