and vegetable tissues and fluids; solid materials were extracted with 1 part of 10 per cent. trichloracetic acid by maceration or in the Waring Blendor; liquids were treated with one volume of the acid solution. A sample of the filtrate was then decolorized by shaking with charcoal, again filtered, and tested as described above.

We wish to report at this time that the purple color mentioned was obtained with such extracts of fresh, normal animal livers (beef, cat, calf, domestic fowl, guinea pig, lamb, rabbit and rat), suggesting the presence of alloxan in these materials. Experiments designed to test the validity of this tentative conclusion are in progress. However, we are disposed to believe that formation of the purple color is associated with the presence of alloxan for the following reason: the blood of normal, untreated rabbits does not respond to the color test, but the blood of treated rabbits (which have received alloxan in the alimentary canal) gives the color test at 5 minutes and at 2 hours after commencing administration. The purple color was not obtained with the fresh livers of shad, or sea perch ("croaker" fish).

Precise details for performing the test, observations made on other animal tissues and fluids, and the bearing of these results on the diabetes problem will be discussed in a forthcoming communication.

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ACHIEVING FULL EMPLOYMENT AFTER THE WAR

DR. MAYER'S recent article on how to achieve and maintain full employment after the war[1] deals ably with the problem of organizational approach to the immediate situation but fails to indicate how important *research* can be in building the foundations for a healthy and expanding economic order. This is an idea of great interest to scientists, but it has not been widely appreciated. Research is seldom stressed in the discussion of postwar plans.

Charles F. Kettering has said, "if we could get out of our minds the idea that we know a lot about everything and realize that the whole thing [research] is ahead of us, then we would have a shortage of labor in no time." The number of people directly concerned with research could be greatly increased, resulting in increased employment, but more important than this direct use of manpower, research creates new industries and new outlets for man's endeavors which furnish the basis for widespread employment.

[1] J. Mayer, SCIENCE, 101: 367, 1945.

Scientific research has been a very minor item of expense and effort in the life of Americans. Probably not more than one person in a thousand is engaged in research. Compared with what we put into war, research has been developed only to microscopic proportions. Yet it is trite to say that enormous industries—telephone, radio, electrical, aeronautical, glass, synthetic fibers and plastics, photographic, moving picture, dyestuff and food—all these and more have their foundations in the relatively small amount of scientific research which has been promoted.

The problem of unemployment is not merely that of finding something for people to do—it is finding *profitable* and *useful* pursuits. What holds more promise directly or indirectly than research? Research can delve into numerous fields and can unearth more treasures than the world dreams of. Every existing industry and means of livelihood will yield profitable findings, and on top of all this and perhaps fully as important, research about ourselves can furnish the key to vastly better health and adjustments—mental as well as physical.

From the standpoint of national safety research is second to nothing in importance. Our ability to hold our place and prevent war will depend more than anything else upon the strength of our science and technology—nothing whatever can take its place. Unfortunately the current handling of our manpower problem has been such as to leave us very shorthanded with respect to scientists in the postwar development ahead. For defense reasons, if for no other, we can afford to devote our efforts to a greatly expanded research program.

One method by which it should be possible to develop and encourage the research which must be at the basis of much of our future development would be to give corporations and individuals generous tax exemptions based upon the amounts which are spent on research. I am sure that many who have had experience in research will agree that a substantial amount of investigation should remain in private hands and that government-sponsored research is liable to become involved in red tape and organization to such an extent that it becomes sterile or nearly so. Research must be in the hands of competent leaders who can be replaced as needed by younger and more vigorous men.

If we should spend ten times as much for research as we do, it would be only a fraction of what we will spend for national defense, yet we would be laying a foundation for vast employment for many years to come.

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