PORTABLE ROADBED—This modern variation of the old dirt road shows post-war promise, especially where a practical roadbed must be quickly laid for temporary use, such as detours. The air forces now use it to make portable emergency landing fields. The steel grating panels are easily connected with hammer and pronged tool. Then sand is filled in between meshes.

PUBLIC HEALTH

Science and the Future

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➤ TODAY WE and our Allies are fighting for the four freedoms outlined by our President and confirmed both in the Atlantic Charter and the agreement of the United Nations. They are, you remember: freedom of speech and expression, freedom of worship, freedom from want, and freedom from fear.

In a very real sense, the four freedoms are inherent in the spirit and purpose of science to which you boys and girls have dedicated your futures. Indeed, the interdependence of science and freedom is our hope for the future. Jesus gave us that hope when he said, "Ye shall know the truth and the truth shall make you free."

Without freedom of thought and its expression, science would not exist, and without science, we could not hope for man's ultimate freedom. Since the dawn of history, and probably in prehistoric eras, men have struggled and died for freedom to know the truth, that others might be free.

One of the earliest accomplishments of primitive "scientists" was to free man from the worship of magic and personal gods. Today, there is no freedom of worship in many lands. More subtle, more destructive than physical restraint, is the spiritual enslavement which fastens man's reverence upon the magic of a super-state and causes him to worship false personal gods.

Through science and its application, down through the ages, we have approached the third freedom—freedom of want. We know that now and hereafter, our greatest task will be to implement the third freedom which the President defined as security "to every nation of a healthy peacetime life for its inhabitants." In so doing, we shall secure freedom from fear, for just as science dispels fear of the unknown, so the free peoples will cast out the powers of darkness which have deluded them and ruled them by fear.

Our great immediate task of winning the war, then, needs brains and skills as well as bodies and materials. For that reason, those who have special talents must use them fully in the service of the nation, so that we may do our part to make the world free and to build a better world. You 40 boys and girls who have been selected from hundreds of thousands of high school seniors by the Science Talent Search will soon join that "ancient and honorable company of scholars" upon whose curiosity, and knowledge, and integrity, so much depends.

Perhaps some of you are wondering how it is that science, which is so bound up with the constructive force of freedom, must be directed toward the destructiveness of war. I can appreciate your confusion, for those of us in the life-saving professions have more than once witnessed the imprisonment of the great constructive force of science by man's inhumanity to man. But the first rule of the scientist is to test theory by fact, inspiration by reality. And the reality today is that the enemy is at the door, and if we do not beat him, there will be no freedom for any of us. And so with all the knowledge and skill, strength and courage, at our command, we fight him.

And too, war—with all its destruction—is like a catalyzer that speeds a valuable reaction. Right now, the life-saving sciences are making great strides in defense of our fighting forces and our industrial army. New knowledge is being sought, found, and applied—to heal the wounded, to protect us against such diseases as malaria and typhus fever, to provide an enormous supply of blood plasma, to prevent poisoning from the chemicals and metals used in the war industries. Right now, the newer science of nutrition is advancing into new fields. And it is being applied, now, on a wider scale than ever before—both in this country and wherever the United Nations are fighting.

In other fields, incredible changes have taken place during the past two years. Whole new industries have sprung to giant size—for the immediate purpose of winning the war, but they present a vision of future accomplishment for peaceful purposes that is truly dazzling. A new air age is envisioned; the plastics industry promises almost miraculous changes in our ways of living; new methods have been developed which cut