That means that a broad-gage plan must be set up, both with reference to protection of workers and compensation for eye injuries and more particularly for standards of employment rejection. Now some companies have a very broad-gage policy along these lines and they do not refuse employment to a man because he has no vision in one eye, but unfortunately some companies do refuse employment to such a man and it brings about therefore a most serious problem.

These and other problems which you may have in mind, and which some of our friends have had in mind, can be discussed very freely and frankly before this panel. I will now present to you Mr. W. T. Cameron, Chief Safety Advisor, Division of Labor Standards, U. S. Department of Labor, Washington, D. C., who will be the leader in our panel discussion of eye protection problems.

(Mr. W. T. Cameron assumed the chair.)

The Panel Members

Chairman Cameron introduced the members of the panel as follows:

Mrs. Eleanor Brown Merrill, Executive Director, National Society for the Prevention of Blindness, New York City.

Harry Guilbert, Director, Bureau of Safety and Compensation, The Pullman Company, Chicago.

Dr. T. Lyle Hazlett, Medical Director, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

R. McA. Keown, Engineer, Industrial Commission of Wisconsin, Madison, Wis.

M. A. Kroger, Director of Safety, Chevrolet-Gear, Axle and Forge Division, General Motors Corporation, Detroit.

H. S. Simpson, Safety Director, Caterpillar Tractor Company, Peoria, Ill.

CHAIRMAN CAMERON: As I see it, we have before us two problems. One is protecting the good eyes of industry, and there are a lot of them still left despite some of the figures that do turn up on lack of depth perception and lack of visual acuity and color blindness and so on. We have the job of keeping the eyes for our great defense program, and so on. The second problem is: How are we going to make the best use of these workers who now have some uncorrectible defect? Where can they be placed? Where can they be used? How shall we provide them with opportunities to earn a livelihood?

I think Mr. Knudsen said the other day that our first bottleneck in national defense is going to be the lack of skilled and trained workers, so we are going to have fewer of the labor supply waiting outside the gates, clamoring to get in, and we are going to have to use some of these people who have previously been screened out of industry or neglected because of some defect, in many cases a visual defect.

We are going to follow the questions as listed in the program, although we probably will do some skipping around.

First, in what operations and occupations do eye injuries occur most frequently? I shall call first on Mr. Keown to give us some information on that subject.

Where Eye Injuries Occur

R. McA. KEOWN: Mr. Chairman, I have a few figures. I am not going to give very many of them because they have been covered pretty well already, but some of the most important.

In our Wisconsin eye injury cases we find that the industries that cause the greatest number of injuries are the clay, glass and stone industries, and another important group is the metal and metal products. The paper and paper products contribute only about 2.4 per cent of all the eye injuries. Another group, a rather serious one, is the commercial and mechanical services like garage work, which account for 4 per cent of all of the eye injuries. As to mechanics, carpenters suffer more eye injuries perhaps than any other group, and hammers contribute the greatest number of injuries as a tool. Dr. Greenburg mentioned the fact that in Wisconsin 23 per cent of all of the eye injuries are caused by handtools; yet only about 4 per cent of the benefits are paid on account of handtool injuries.

Eighty per cent of all of our injuries are of a temporary nature, and manufacturing contributes only about 50 to 55 per cent of the eye injuries. Eighty-three out of every 100 compensable eye injuries are temporary. As stated by the New York figures, our number of eye injuries as compared with all injuries runs from 2.9 per cent to nearly 4 per cent. That figure has varied between those two limits for quite a number of years, and the amount of benefits paid, however, runs from 8 to 10 per cent and that checks very closely. The cost of eye injuries in total benefits is about two and one-half times as serious as for all injury cases.

CHAIRMAN CAMERON: I think we might have an actual example or two. I know that the usual procedure in industry is to go through the shop and make a list of all the jobs where eye protection of one kind or another should be furnished. I should like to call on Mr. Simpson, of the Caterpillar Tractor Company, to give us some examples of where eye cases turn up in heavy manufacturing.

H. S. SIMPSON: It is our experience, and that of all industry, that accidents happen where you do not expect them. If you do not expect to have an eye injury, you do not wear goggles, and you end up in the hospital with an injury and then the compensation. We have considered adopting the compulsory goggles rule but we get up there and then we back away. We have tried to evaluate hazards. We say that the operator on this machine must wear goggles, but what are we going to do about the timekeeper who stops by for an instant to get the man's time and also one of his chips?

Our serious eye accidents have been cases, for instance, where a lock-washer exploded when the nut was being backed off with an air wrench. A piece of the lock-washer tore a hole in a man's eyeball. Normally, you have a devil of a hard time selling the man in the shop that there is any particular hazard there, but he believes it now. Incidentally, he is in our employ and we do not feel that we should discriminate against his lack of binocular vision. The intelligence level there takes care of many things. He has learned an awfully good lesson and he sees twice as fast with one eye.

FRANK K. BOYLE (Brown-Lipe-Chapin Division, General Motors Corp., Syracuse, New York): In the doctor's statistics, how many cases involved syphilis and do accidents aggravate the condition?

CHAIRMAN CAMERON: Dr. Davidson, will you take that question?

DR. DAVIDSON: A very insignificant proportion. I haven't the exact figure.

MR. BOYLE: Is it true, doctor, in the state of New York that if a person has syphilis and an accident aggravates the condition he gets compensation for total blindness?

DR. DAVIDSON: According to our laws, if syphilis preexists an accident, he gets paid for the loss regardless of the preexisting condition. Aggravation is a ground for compensation.

Getting Employee Cooperation

CHAIRMAN CAMERON: I think this very logically leads us up to "The pro and con of the compulsory goggle rule." We have had several questions turned in. The first one is, "Any eye protection campaign depends on the worker. How do you gain his cooperation? What is the supervisor's place in the program?"

Dr. Hazlett, I should like to have you tell us a little about how you gain the worker's cooperation in wearing goggles. Now we have two things here. We have one the matter of making the wearing of goggles a condition of employment, just like punching a time clock or anything else. We have the other problem of a selling campaign to get the workers to wear goggles voluntarily with perhaps a little pressure now and then from the supervisor. Will you take that first, Dr. Hazlett?

DR. T. LYLE HAZLETT: In regard to the employee, I think that we can educate him by means of example. It has a very telling effect. We all feel that a great majority of the eye accidents can be eliminated if we do have proper protection. We still, of course, have the timekeeper or the engineer who may have an accident when walking down an aisle, but eye accidents can be eliminated by making the employees more conscious of the effects of simple eye injuries.

Often if the employees are shown a break-down of minor accidents occurring in different divisions, it will make them realize the size of this whole problem. I think we can sell this to employees by gradual education, making them more conscious of the number of cases occurring during a