What we really need is a strengthening of the technical side of the compensation acts to keep pace with the increased factual understanding regarding the occupational diseases. This does not merely refer to the Courts themselves but should begin with the promulgation of accurately worded compensation acts which clearly define the diseases for which compensation is to be paid. Compensation commissioners should be assisted by boards of technical experts composed of engineers appointed by the deans of the various engineering schools and of physicians appointed by the deans of the recognized medical schools. The engineers selected should have a very complete knowledge of factory conditions and the field of ventilation, and the physicians should be experts in the field of industrial hygiene and occupational disease. It is only with the aid of such highly specialized boards, or their equivalents, that the compensation commissioners may be able to do complete justice to both sides in these highly technical cases. It is the belief of the speaker that employers and employees alike would benefit greatly from the establishment and use of such boards. In order to hasten the establishment of this system employers are justified in appealing to their legislatures with this end in view; certainly such a legitimate demand should receive the hearty support of all concerned.

Frequently one is asked, what should be done with those claims which are based on little or no real evidence of injury to the worker but which are merely reared by some very enterprising attorney? Such claims are, I have been told, becoming very common of late and constitute a real problem to industry. It is obvious that the compensation advisory boards suggested earlier will, as soon as they are formed, serve the future as a healthy bulwark against this type of baseless claim and I venture to predict that few such cases would be favorably acted upon by a board of real experts in this field. At the present time factory officials should employ the very best legal talent available and should reinforce such legal talent with technical and medical experts thoroughly versed in the field of silicosis. Many cases have been lost by a failure to bring to bear the requisite technical aid required to prove the non-existence of a hazard. Here is an excellent example of a case in which money may be saved in the end by increased expenditures.

We now arrive at the final steps in the control of this problem, the physical and X-ray examination of the worker. Every factory should have pre-employment and routine post-examinations. It seems obvious that the burden of the health of the worker should not be placed on the plant without the privilege of the pre-employment examination. How can industry be legitimately expected to hire a worker "in the blind" as to his or her physical condition and then a day later be expected to shoulder the burden of the worker's health? By repeated physical examinations it is possible to discern the faint early deviations from normal health if any take place. In this manner the employer would be forewarned very early if any workmen showed lung changes suggestive of early silicosis. The routine industrial health examination on a broad scale throughout the major portion of American industry would constitute a public health procedure of major significance. By its means a very large proportion of the population would be aided in the prevention of the degenerative diseases of middle life which today constitutes such a real menace.

ADJOURNMENT

Falls of Persons

THURSDAY AFTERNOON SESSION

October 5, 1933

The special session devoted to discussion of problems arising through falls of persons was called to order by W. S. Paine, manager, Engineering and Inspection Department, Aetna Life Insurance Company, Hartford, Connecticut, who presided. Chairman Paine welcomed the delegates and immediately introduced the first speaker.

Ladder Accidents and Their Prevention

By F. L. HURLBUTT

Manager, Patent Scaffolding Co., Chicago, Illinois

The speaker said in part: In discussing ladder accidents, let us divide our subject into three divisions: (1) selection; (2) care or maintenance; and (3) proper use.

I can think of no piece of plant equipment in which there is the opportunity to buy either safety or accidents that there is in ladders. Basically, no ladder is better than the poorest piece of stock used in its construction. Only well seasoned, straight-grained woods should be used. For extension and string ladders, the rails should be of spruce, Douglas fir, Norway pine or long leaf yellow pine. Because the last named is somewhat heavier, it is not as desirable as the others. Rungs of oak, ash or hickory are by far the best, and here grain is all important. To assure straight grain, the best rungs are hand split in distinction to the ordinary machine turned rung.

The sectional size of side rails must vary with the length of the ladder, and likewise the diameter of the rungs must vary with the width of the ladder between the side rails. But in no case should the diameter of the rung be less than 1¼ inches, nor the tenon less than ⅜ inches. A genuine safety measure on extension ladders is the use of automatic locks, instead of the old fashioned gravity locks. All hardware should be of malleable iron or mild steel. No cast iron fittings should be permitted.

Much discussion has been indulged in over the question of whether rung tenons should extend fully to the side rails or only to within a quarter of an inch. My experience is that where the tenons do not go all the way through the rails, such ladders retain their rigidity better and do not get wobbly as soon as ladders which have the rails completely bored through. Also, moisture is less likely to get at the tenon of the rung and cause rot.