In conclusion, cheese makers should realize that the purity of their water supplies is of vital importance to the health of themselves, their employees and patrons, and to the welfare of the industry. Every possible precaution should be taken and expense and effort should not be spared in adequately safeguarding water supplies at Wisconsin cheese factories.

MR. SAMMIS: I would like to ask the speaker a question. If a cheese maker suspects his well water is not first class and would like to have it tested by your laboratory, what will be the total cost to the cheese maker to get this done?

MR. WARRICK: The postage on the sample containers or express charges in case large samples are required, that is all.

THE PRESIDENT: Mr. Warrick, are you sure that the water supply in Milwaukee is safe?

MR. WARRICK: The water supply of Milwaukee is continuously supervised and it happens to be chlorinated at the present time. It is drawn from Lake Michigan a distance out from the shore and according to analyses submitted monthly to the State Board of Health it is in first class condition.

THE PRESIDENT: The reason I asked is that I hate to see any of the boys going back carrying any bad germs.

MR. WARRICK: Mr. President, I don't think there is any danger of that, because I don't think there are very many that drink water while here in Milwaukee.

WHAT MAKES FACTORY INSURANCE RATES HIGH?

By MR. CHARLES M. PARK, Engineer, Wisconsin Department of Insurance, Madison, Wis.

Mr. President, Ladies and Gentlemen: The Honorable H. J. Mortensen, Commissioner of Insurance, is unable to be with you today and has asked me to speak to you on the subject of "Why Fire Insurance Rates on Cheese Factories are so High". If you will follow me, I believe I can give you a very satisfactory answer.

It is a well known fact that the total premium received by fire insurance companies on cheese factories or any other class of risk, must equal or exceed the losses on that particular class. The National Board of Fire Underwriters, with headquarters in New York City, has for many years maintained a loss record of classes of risks for the entire country. They do not, however, keep a record of any one state nor raise or lower rates in that state as the loss experience would warrant, for the reason that no one state is taken as a unit. Perhaps cheese makers of Wisconsin are fortunate that such is the case. From records of the Fire Marshal's Department of Wisconsin I find that in the past eleven years insurance companies have paid for cheese factory losses in Wisconsin the sum of $1,800,671, an average of $163,697 per year. In the eleven years there have been 288 cheese factory fires, large and small, or an average of two fires per month with an average loss of $13,641 per month. The Dairy and Food Division informs me that there are 2,244 cheese factories of all kinds in Wisconsin. On the basis of these figures, the insur-
ance companies have paid an average annual loss of $73.00 per factory. The average rate of insurance is approximately $1.50 per $100 and the average insurance carried is close to $5,000 per factory, making an average annual premium per factory of $75.00 and the average annual loss per factory $73.00 for an eleven year period. This leaves a gross margin to the companies of $2.00 per factory. Deducting agents’ commissions, running from a policy fee in mutual companies to twenty per cent in stock companies, and taxes, adjustment and inspection expenses, with home office expenses of the companies, we arrive at an expense ratio of from forty to fifty per cent of the premiums per year. Take forty per cent, the low figure, from the average premium of $75.00 per factory and we have left a $45.00 net premium per factory on which the companies have paid $73.00 in net losses. That, gentlemen, answers your question as to the high rates on cheese factories.

I am not here to defend insurance company rates but figures are figures and we have to bow to the result after a correct use of them. Wisconsin has been extremely unfortunate in its cheese factory fire record, but where there is life there is hope and I shall endeavor before finishing this talk to suggest a remedy, but first I desire to give you some further data on losses of this class.

The dairying industry in Minnesota and its output of milk products is a new business in comparison to that of Wisconsin. Minnesota factories are newer, generally speaking, and it is possible that most of them are more modern in construction, at least from a fire standpoint. In any event, the losses are fewer and smaller in that state. Minnesota is paying practically the same rate of insurance on cheese factories as we pay here in Wisconsin but they are complaining, and last year asked a reduction in rate. The rates were not reduced, however, as the losses over the entire country would not warrant a reduction. You may readily see that for the past several years Minnesota has been contributing in the payment of Wisconsin’s cheese factory fire losses. That may be all right, as we started them in the business and possibly they owe us something, but they do not seem to like it, nevertheless. Insurance companies tell us that assureds make their own insurance rates. We believe as much of that statement as we care to and no more, but it is true, however, that the underwriting experience on any given class does govern the insurance rate charged for that class.

In the past five years Wisconsin records show that in only one year, 1927, was there sufficient fire insurance on cheese factories having fires to pay the losses. In the four other years the losses exceeded the amount of insurance carried.

We find upon investigation that many fire insurance companies refuse to insure cheese factories in Wisconsin due to the past excessive loss ratio. The Northwestern Cheese Makers Mutual Insurance Company of Juneau went out of business a few years ago. The major part of their insurance covered cheese factories. Many stock companies and a few mutual companies are still insurin...
tories. One farm mutual is insuring this class at a rate of $1.00 per $100 for five years and is making money, apparently. However, it accepts only a very few risks of this class upon inspection and will not write a factory owned or operated by an individual or corporation, it must be a co-operative plant.

The peculiarities of underwriters are all their own. If they desire, they can refuse to write a factory unless it is colored "red" and has one or two yellow stripes around it, or unless it has a green bird house on the northeast corner. The Commissioner of Insurance cannot say what class of risk a company shall write as long as it complies with the law and its findings. There may be reasons for company peculiarities but many of us do not see them.

A few years ago we all had a good laugh because some companies refused to insure farm barns without grounded lightning rods. We are not laughing today, however. Statistics on farm barn losses show that barns properly rodded do not burn as freely as those without rods. A mutual company located in central Wisconsin recently discontinued writing cheese factories as its loss ratio was above four hundred per cent on this class. In other words, experience shows that they had paid out $4.00 in losses for each $1.00 received in premiums.

In the statement that each assured makes his own rate of insurance, we must fall back upon averages again. As many cheese factories are located outside the corporate limits of villages and cities and are hard for strangers to locate, the physical conditions found in a number of factories inspected are averaged according to charges for additional hazardous features and credited for exceptionally good conditions. The average rate thus obtained is used for outside factories unless there may be particular conditions which would warrant further attention.

In 1912 our present Commissioner of Insurance Mr. H. J. Mortensen, was appointed a member of a legislative investigating committee to investigate fire insurance rates and practices in the State of Wisconsin. At that time he made a somewhat exhaustive study of the use of the Analytic Schedule, the measuring stick of the fire insurance companies, in ascertaining rates according to hazards. This schedule, in succeeding issues which I, myself, have applied in rate making, has, by additions and changes, developed into a volume of nearly three hundred finely printed pages and has become so complicated that experts who have used it constantly are not at all sure of their work. It is now simply a voluminous mass of detail. Not long since, a man who has made a study of fire insurance matters in Wisconsin, wrote to our department and stated that he would like to find two Analytic Schedule experts who could obtain the same rate on an unexposed and isolated barn consisting of no unusual hazards. This case may be slightly overdrawn but it is a fact that by this complicated schedule no two raters seem able to obtain the same final result. The Commissioner of Insurance of Wisconsin has made some suggestions to the owners of the Analytic Schedules and they have listened to such
suggestions with considerable interest. The Commissioner states that if, during his term of office, he can bring about the elimination of a part of the detail of the present Analytic Schedule and accept for filing a schedule that will not be so complicated but that it can be used with confidence by rating experts, he shall feel that he has accomplished something for the insuring public of Wisconsin.

However, a simplified schedule will not do for the cheese makers of Wisconsin. What we would like to promise them, is, a better fire insurance rate, but if each of you when you return to your place of business will check up conditions in your risk and endeavor to assist in reducing the loss ratio on this class, equal to or lower than that of other states, I can promise you that your Commissioner of Insurance will take action along the lines of a rate reduction for this class.

In going back to figures again, you might be interested in knowing the causes of cheese factory fires. Fifty-five per cent of the cheese factory losses in Wisconsin for the past eleven years was caused by defective boiler arrangements, smoke stacks, and roof fires. This percentage could be greatly decreased with care and watchfulness. Roof coverings of an incendiable nature could be provided. Metal protection too closely exposed wood in roof or sides would be advisable and other improvements that, in your estimation, would better the risk. Twenty per cent of the fires was due to poor housekeeping conditions, such as accumulation of rubbish in boiler rooms or basement. This condition could be easily remedied. Ten per cent of the fires of incendiary or suspicious origin and in fifteen per cent of the cases the cause is given as unknown. Possibly a considerable portion of this last named item might be charged to defective electrical wiring, cigarette hazards, etc. Underwriters have adopted standards for boiler, stack and wiring conditions and if any of you might be interested in bringing your risk up to or nearly to the standards set by underwriters, we will see that you are supplied with these booklets free of charge, if you will write to the department. The only way that I can see to better your rate is to decrease the losses, and these booklets give you the benefit of hazards learned by underwriters in years of experience.

There is one particular reason why I ask all of you to improve your risks from a fire standpoint, and I will state that reason as briefly as possible. The legislature of 1931, upon the recommendation of the Legislative Interim Committee, passed a rate regulation law which provides that the Commissioner of Insurance shall compile and file in his office an experience classification for the State of Wisconsin, and we are hastening to comply with that provision of the statutes. For some years we have had in mind a classification that would separate writings of companies into classes, according to the combustibility of the occupancy as shown in the Analytic Schedule. If the schedule is the correct measuring stick for the many hazards in the various risks throughout the state, it should also be correct as to showing the premiums and losses on each particular class, according to the combustibility shown in the rate making. With this end
in view, we have worked on a classification based upon combustibility and I am happy to inform you that we are making progress. This classification will show the Wisconsin experience in addition to the National experience and I hope that beginning with the year 1932 cheese factories may show a lower loss ratio.

At the recent Insurance Commissioners' Convention at Portland, Oregon in September, a committee was appointed to draft a new National Experience Classification to submit to the National Board of Fire Underwriters for the use in all states. A rough draft of our classification, as a Wisconsin idea, has already been submitted to underwriters for criticism. While Wisconsin risks and values may form but a small proportion of the values of the entire country, Mr. Mortensen is going to submit this classification at the meeting in New York in December.

LOCAL, FOUR-DAY SCHOOLS FOR EXPERIENCED MAKERS

By Prof. H. C. Jackson, Madison, University Dairy Department

MR. JACKSON: Mr. President, Ladies and Gentlemen: I just have a short statement to make. It is our business down at the school to carry on educational work. I would like to talk to you just a short time and present a new plan that we have worked out.

Developments are taking place within this industry that are revolutionary in their nature and although the noise of battle may not be heard, the economic effects of these changes may, perhaps, be as far reaching as those of a more spectacular revolution.

Of all branches of the dairy industry the cheese division has experienced the least change. Up until a few years ago the cheese maker and his family in his factory home was a self sufficing economic unit. At the present time this citadel is being stormed by the economic forces of industry. Changes are taking place that vitally affect the individual cheese maker and perhaps make his position less secure. No matter whether we like it or not, these changes are in motion. In the year 1921 Wisconsin had 2,807 cheese factories. In 1930 there were 2,245, twenty per cent decrease in nine years. In 1925 Wisconsin made the largest amount of cheese that was ever produced in a single state. Since that time the annual make has shown a decrease and at the present time the production is slightly in excess of that of 1921. This means that the output per factory has increased and the development which had its inception ten years ago is still going on.

Many cheese makers have already suffered as a result of these changes. Many have lost their factories and many their positions. Various schemes and ideas have been advanced for the promotion of the welfare of the maker and the meeting we are attending at the present time is one of the methods that the cheese maker is employing to advance his interests and that of the industry. While the size of the economic units of manufacture may increase, the