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THE AUTOMOTIVE INDUSTRY

by

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## THE AUTOMOTIVE INDUSTRY

It is again a pleasure to be here to address you and try to tell you what progress, if any, we have made since I was here the last time.

The model year of 1937 started on November 11, 1936, with the automobile show in New York. In accordance with prearranged plans, we started with subnormal stocks in the field of new cars and normal stocks of used cars, and with every indication of a good year for automobile sales. Prices and wages were rising but with a good volume in sight the industry went along without raising prices, figuring on the volume to make up for it. The decision to change models earlier seemed justifiable for sales in November and December were well above the previous experience in both new and used cars. It became quite evident, however, that we were not going to have clear sailing. The election being over, labor, feeling that it had been granted a new magna charta in the shape of the Wagner Act, began an organizing campaign all over the country, which, particularly in the State of Michigan had no previous parallel in the history of the United States. The Federation had a split with the C.I.O., Committee for Industrial Organization, and this latter one making a bid for the industrial union with no organization to carry on the work left the automobile industry with a rather difficult problem to deal with for the first six months of 1937. The problem is still with us. It is to some extent working itself out. As I pointed out last year when I was here with you, the industrial union is a new thought born of a desire to organize quickly and presents problems which can only be worked out after trial and error. The old union practice was well established before and could perhaps have been brought into action but for the fact that a race started between the two major unions to see which could get the greatest number of members in the shortest possible time.

It was generally conceded that the Wagner Act would be declared unconstitutional and there was no use waiting for the decision. It was generally conceded that wages in the automobile industry were higher than those in civil industry, but the old axiom to get more money was necessary

to make the campaign a success. The five largest automobile companies that were promptly attacked, General Motors being the initial one, through the medium of the sit down strike were forced to sign a non-exclusive agreement for collective bargaining, mainly through State and Federal Government pressure. In order to get the extremely large number of people who were out of work back to work again the Corporation chose not to carry the fight but to try to go along with the law as it stood at the time. At the peak of the strike we had 135,000 people idle out of 255,000, and naturally you can realize it is quite a pressure on anyone to feel that so many homes are without a pay check for any great length of time. These men were not on strike but they were made idle through strikes in key plants such as unit manufacturing plants and body manufacturing plants which successively would shut down the assembly plants on account of shortage of materials. The maximum number of people we had out were 135,000. Forty-four days' production was lost; the wage loss was somewhere around \$33,000,000.00; we are not speaking at all about the corporate loss, which really did not matter at the time, because the point of greatest importance was the men. However, we signed, as I told you, an agreement and wages were increased again; shop committees were privileged to handle grievances, and the agreement contained clauses specifying a negotiation procedure before strikes.

With the success of the move in the automobile industry a perfect mess of sit down strikes developed in Detroit and vicinity, often engineered by people who had no connection whatever with the business. However, public opinion finally rose up against the procedure and it died out almost as quickly as it started.

You will remember when I was here last year I told you about my visit to France and that my friend, a French manufacturer, told me about the sit down strike over there. He said: "You better look out; it will happen to you." I laughed at him and said that it could not happen - I found out that it could and that there was no use getting excited about it, but for a while it was rather distressing because naturally the average man, in whatever station of life he is, rather depends on the law to look out for his interests, and in Michigan the law was a little rusty for a month or so. In fact, in one town the only thing you could be arrested for was parking on the wrong side of the street.

In our case it became quite evident that the procedure agreed to to prevent strikes had little effect on the actual recourse. With the new found power the organizers and union officials had a terrible time keeping the locals from getting out of hand and we had strike after strike, of course all small ones, until June. In June we notified them that unless these unauthorized strikes were stopped (we had over two hundred of them of various durations - it sounded bad in the papers but of course you know we have 78 plants - of from twenty minutes to five days, but two hundred violations of contracts were quite possible in our case) we would not negotiate with them any further. The reason we did that in June was because under the original agreement there was no provision for any negotiation until June 11. The original agreement had to stand from March 11 until June 11 without change but on June 11 they had the right to ask for change and when they asked for change we told them we would not have anything to do with it until they gave us assurance against unauthorized strikes. Public opinion had risen up in arms about it and there was really nothing else for them to do. Then "Wild Cat", an awfully good name, took hold. They naturally had to do something about it and they did. It took them until September 16 to get the final sanctions put on paper, a lot of negotiations about "and", "and/or" and "yes", etc., but finally on September 16 we got the sanctions, and since then we have been running fairly well with one or two exceptions. With those two exceptions the organization has stepped up, punished the perpetrators, not our employees but the employees of the union, and we have promptly taken care of our own. I think the net result of the strikes and our actions since has been that the sit down strike has gone by the board as far as the United States is concerned. I think popular opinion generally has taken a stand against it. We will not be bothered with that any more to any great extent.

With all the trials and tribulations we have had, business continued very good and by September 1st it was possible for us to show that we had made up the loss through the strike and were 15,000 cars to the good for the eight months. It looks now as if the year is going to wind up a little more than last year as far as General Motors is concerned. I will dwell a little more on that later. We will be ahead of last year in the production of cars.

In the meantime the Wagner Act has been held constitutional and we are bound by the law. I do not want to dwell upon the provisions of the act, only to state that if it fails to stop strikes it will be ineffective as a help to the labor of the country. We naturally hope that if we must have labor organizations to deal with, and we have no particular objection to them, that the organization will be responsible to keep their contracts; otherwise they will fail as a method of collective bargaining. The preliminary difficulties appearing on the surface are first, for young and inexperienced organizations to draw the line of demarcation between the functions of management and the functions of the organization. The second difficulty is that the seniority, such as advocated by the organization, more or less ties a man to his job whether he likes it or not and it is supposed to give him what has been called a "moral right" to partnership than the capitalistic system, with his labor the sole investment in the enterprise. Seniority has been recognized in the industry from the outset. In the past it was based more on skill and good service, but it introduces now a lot of problems as to whether it is departmental, occupational, or plant wide, and the men themselves do not know which way they want to go. However, I have the opinion that it will work out in accordance with occupation. It cannot be plant wide in the factory with various trades employed, mainly because we have a continuous production and recognize the manual skill of the men. The old story that a man can be trained in an automobile factory, in any operation, in three days, three weeks, or three months, is a lot of nonsense as far as the more accurate operations are concerned.

With reference to the workmen's investment, through the medium of his job, in a plant, that is a new theory and of course to my mind has a little taste of Moscow in it. I fully recognize that a good workman is an asset to any industrial enterprise and should be rewarded well for his effort. I cannot consistently discard the age old master and servant relationship or discard the obligation of capital to assume the risk of the enterprise. I feel that if a concern is prosperous the advance gained should be distributed to the consumer, the merchandiser, the workman, and the stockholder in correct proportions; otherwise the capitalistic system is dead and when that dies industry is due for a good case of paralysis, such as has been the case in every country which has undertaken the collective system of industrial production.

A friend of mine who lives over here in Fredericksburg recently visited Premier Mussolini in Italy, and Mussolini was quick to point out what they had to do in Turin in a factory where the workers wanted to take over the plant. They took it over only to find out that they did not know what to do with it after they got it. I believe Russia's experience is something like that also, although something might be said for the idea of taking the managers out and shooting them rather than worrying them to death. So much for the labor situation.

To sum up, the industry has no objection to collective bargaining by law or otherwise, but any reasonable man will agree that contracts unless made between responsible parties are only so much paper and one must also agree that if contracts will not stop strikes they are not worth much.

As for the efficiency of the factory, that is down - if I should make a flat guess I would say about ten percent. It is coming back, however, and I am glad of it for the reason that when it does come back it refutes all the old claims of speed up and stretch out in a proper manner. To give an example, in a certain assembly plant body builders on one operation decided to slow up. This held up the entire line. The fact that other plants were performing the same operation with ease did not enter into it. The plant was scheduled to make 35 cars an hour and it would only make 30. The plant was on piece work. Consequently, the management decreed that if 30 cars an hour were all they would make, the entire force would be reclassified on a 30 car basis and some 300 men would be laid off. Well, the 300 put such pressure on those who were holding up the production that they went back to work and the plant is now making 35 cars an hour, and it will continue to make 35 cars an hour. That method of dealing with the situation was very effective in this particular case because there was not any foundation for complaint. As far as the quality is concerned we have been most successful. From the start we took the position that whatever the cost was, the quality of workmanship had to be maintained and where labor trouble affected the quality, the work must stop until the prescribed standard was obtained. It is only fair to say that sabotage, such as was feared in the beginning, did not show itself, and it is to the credit of the factory executive organization that they could control the inspection one hundred percent. For your information I think I could state here as my personal

opinion that men will not resort to sabotage in labor disputes where wages do not enter into the argument unless a political issue is involved. By that I mean war. It is comforting to know that the inspection system is strong enough to handle it in any case.

There is no use trying to discard or hide the fact that business is off. We know that. That has nothing to do with my appearance before you. However, I thought that you might be interested in a theory which some of us have to the effect that the recession, so-called, in business is more or less due to a too rapid increase in prices. Originally I had some big charts; I thought it would be rather cumbersome to have big charts in here so I photographed them down to smaller charts. They all show the same thing, however -- that prices in the early part of 1937 took a sudden rise, and, as far as commodities are concerned, dropped. Here, for instance, (displaying chart for tin) was the position of this line on the 1st of January, 1937; it reached a maximum in March of 62¢ a pound from 22¢ at the low. See the hop up and the drop. Here is lead -- 3 3/4¢; but the hop up occurred, too, right after January 1st. Here is rubber -- rubber has gone from 4¢ in 1933 to 24 1/2¢ in February or March of 1936 and is now back to 14 1/2¢. Here is cotton -- cotton showed an all time high in February, 1937, and is now down to 7 1/2¢. Pig iron -- there is a straight line price for pig iron -- this for publicity purposes. Bessemer, open hearth steel mills, automobile sheet -- (displaying charts). Here is the old football, copper. You see, in every case prices rose very rapidly in the first part of 1937 due to a feeling that base prices could go up and the product prices stay the same. That can be handled for a little while but only until the facts of a situation come back and hit you in the face. Here is labor. Notice the sudden rise in 1937. These are the average wages for the industry; these are not General Motors figures. We have today in General Motors increased wages 25% over 1936. At the same time we are faced with a material increase of around 13%. The overall increase made it necessary for us to raise our prices; and the prices were increased 8 1/2%. There was no way for us to recover the entire amount of the cost increase we had been subjected to, and business is off. I bring this up to give you a suggestion: if you need any metal, buy it when prices are low -- it will keep the market rather steady. I think the charts demonstrate in a way the fallacy of the theory that we can increase the cost of base materials and wages without increasing the cost

of the finished product. In a receding material market you can give people better products for less money but when everything starts going up prices are bound to rise and when prices rise too fast the average buyer keeps his hand in his pocket, and all we can do is work toward getting him into the frame of mind where he feels he is getting his money's worth again. He might be getting it right now but if you have not convinced him of it your business will be off until you do.

The registration of passenger cars in the United States for 1937 will be the highest since 1929. In other words, it will be 3,700,000 as against 3,500,000 last year. I am now speaking of passenger cars. Cars and trucks in the United States will run 5,100,000 this year, which is two or three hundred thousand over last year; last year the number was 4,600,000, almost a half million over, mostly trucks. The truck position has been increased so that trucks for 1937 will reach an all time high.

With reference to the mechanical aspects of the industry, I have not much to report to you this year. The year has been one of consolidating what we had planned last year. The only place where I can say some real progress has been made has been in finishing gear teeth. Some progress has been made there, and the so-called hypoid gear which now is used in most rear axles was developed successfully with practically no trouble. Another development we have had has been the so-called automatic transmission, which you probably have seen advertised. It is still in the stage of development. We have spent quite a lot of money trying to get the plants up to make it in quantity but so far they have only been able to make three or four hundred a day. The job is in a "productive engineering stage", as we say. In other words, we know how to make it right but we do not know how to make it quick.

So far as the industry itself is concerned, I have not very much to tell you this year over what I told you last year. There has been a lot of expansion going on in the industry during the last year, and possibly you are interested in that. For instance, the total sales of machine tools for ten months of 1937 are \$125,500,000.00, of which General Motors bought \$21,700,000.00 worth. This is naturally of interest to you because it is new equipment right up to standard; it does the work and takes

the place of equipment which is more or less obsolete or represents expansion in our present facilities. In addition to this \$21,000,000.00 worth of machine tools we have bought other tools such as are not included in the records of the Machine Tool Association, namely mostly presses and sheet metal machinery, about \$9,000,000.00 worth. Of the total equipment purchases in General Motors during the last five years machine tools were 52%. In addition to that we have put in a lot of equipment for carrying purposes: conveyors, and special equipment for finishing.

We have a fairly good record to hand you of expansion. Here, for instance, is what we have done during the last year: In Chevrolet at Tonawanda we have put in 860,000 square feet of floor space. I want to tell you that all this floor space we are putting in is all one-story stuff, with spans from forty to sixty feet. With "an eye to the future and an ear to the ground", as we say in General Motors, these buildings can be utilized for most anything you will want later on. In Buick at Flint we put in 200,000 square feet of floor space; down in Anderson, 200,000; Delco, Rochester, 400,000; Harrison at Lockport, 200,000; Dayton, the Inland Manufacturing Company, 200,000; and other plants in Dayton 250,000. We built a new Diesel plant up in Detroit with 483,000 feet in it, and we built an assembly plant in Linden, New Jersey, with a million feet in it. All together we have put in four and one-half million feet of floor space during the last year - 1937. I do not tell you this to brag about it. Naturally in a manufacturing business such as ours we have to be sure to be there when the public will buy the cars and the capacity is needed. It is good business but at the same time it has been built in such a way that it could be used for any purpose that might come up later on.

The industry's production of trucks for 1937 will be 852,000. That goes to show that we are coming more and more to rapid transit of smaller quantities of material. The railroads will be used for the longer hauls of heavy quantity. We have had quite a reaction to the Diesel trains, as you well know, and the railroads are already beginning to talk about freight trains run by Diesel engines, which will necessitate their being changed somewhat so as to give them better starting pull. Over in Chicago (I do not know whether any of you gentlemen have seen it) we have a plant now that is capable of putting

out four motors a month of capacity type variety and twelve to fifteen switching locomotives. About the only thing I can say about the business is that we do not have to take any old locomotives in trade.

On the tool designing end of it, some new angles are coming up all the time. We are gradually learning to make standard forms and use inserts when model changes are necessary. We have not gone very far yet on that score but I am sure they can be developed within the next year or so where we can make forms that will fit the presses or fit the machines and when we get a drawing we will be able to make small inserts that will do the work rather than to start from the ground with a great big piece of castiron or cast steel, which has caused a terrible over supply in our shops of obsolete castiron. I think we will find a way in tool design to get after that and with inserts manage to make what is needed. If we can get at times some indication of what you are thinking about it might actually be possible for us to make standard forms for the machines that would take other things. It is rather difficult to illustrate it to you without a drawing but you can understand how it might be possible to make a box form, just as in the old days we made a box jig for a drill press and put the bushing in, so we can make up whatever shape you might want.

Welding is still going ahead, getting more and more efficient every day. You look at an automobile body and you cannot tell where the joint is. It has simply been flash welded, ground off, and wiped with solder. That means that you take the solder and a torch and wipe the joint off after it is made. We are making some little progress in cutting. Cutting speed, as you know, today is simply a matter of keeping a tool cold. It is not a matter of speed any more - it is a matter of heat. Some of the experiments made in research have shown some progress along that line.

In the motor cars themselves the performance ratio is about where we need to have it. I do not think we ought to go up very much - cubic feet per ton about 122, 123, and I think that from now on we will have to work on comfort for the driver rather than more performance. The element of fatigue is coming more and more to the front. Where so many people are driving,

for instance in the cities, it is extremely necessary for us to study ways and means of having fatigue reduced to a minimum. We are naturally concerned with the number of accidents that are taking place. We are somewhat at sea as to how to attack the problem. The Automobile Manufacturers' Association is supporting the national safety movement on a highway with both money and technicians. The development of motor cars of all metal bodies has made it considerably safer than it was before, and safety glass has done something, but the element of driver fatigue I think is today the greatest cause of accidents.

You cannot help sometimes wondering just how we got this way. I was over in Chicago at the time of the World's Fair. We had an exhibit over there a few years ago, and one night Mr. Sloan and I drove home on the outer drive, Jackson Boulevard, about three or four miles, and there were four lanes of cars going north and four going south packed solid from Jackson Avenue, which is downtown, to 31st Street where the exhibit was. I said: "What do you suppose would happen if those were all horses and buggies going this way? One would have a fit and what a pile we would have out there!" With all these thousands of motor cars going one way or the other, the only element in it that I do not like is that we make an engine that will travel 70 miles an hour and give that to a person who under ordinary circumstances could not pass the examination for running a 40 H.P. engine standing perfectly still. We have a problem there that we are working on and I think the more we can put the driver at ease the better is the overall result going to be. As far as putting more speed into the cars is concerned, it could only be used to wrap the car around a tree or a telegraph pole. I think acceleration of from ten to twenty-five miles per hour in about five seconds is fast enough for anybody.

The other developments, of course, have been that we got a little bigger and a little heavier car, which was wrong. We have to back off again because if we make the car bigger, more comfortable, by and by the engine gets too small; if we make the engine a little bigger, then the car gets too small. I think we have pretty nearly reached -- I do not want to sound old-fashioned -- the performance ratio, and the inside body dimensions required in the average motor car. If we get that, and we are practically there now, then we can

put our attention to making the car more livable. You might be interested in a story. I walked past a used car lot where they were selling used cars and I heard a brand new expression. The salesman had a prospect in there and he was trying to sell him a certain car (modesty forbids me to say which car it was). His final argument was: "Well, brother, here she is - \$325.00 with music and heat" - the radio and the heat. That in a way gives you the trend of things.

*Discussion in v. —*