

MANAGING RAILROADS

INTERESTING DISCUSSION OF A BIG SUBJECT.

Hon. M. E. Ingalls, President of the Big Four Railroad, Presents Some Important Facts That Will Interest All.

Hon. M. E. Ingalls, one of the greatest authorities on railway matters, read a highly valuable paper at the recent convention of railway commissioners held in Washington, D. C. His wise words will be read with interest by all. The convention was called for the purpose of considering questions of great interest both to the railways and the people of the United States. Members of the Association of American Railway Accounting Officers were also present and were invited to take part in the discussion. Chas. J. Lindley of Illinois, was chairman of the convention. Ohio was represented by Railroad Commissioner R. S. Kahler and Chief Clerk Ed H. Archer. P. A. Hewitt, auditor of the Big Four, was one of the railway accountants present. Mr. Ingalls' address is here given as being a semi-official expression of the views held by railway managers generally, and as being also of general interest to the public at large:

"Mr. Chairman and Gentlemen: I am very much obliged for this opportunity of addressing you. I understand I have in my audience the members of the interstate commerce commission and the gentlemen composing the various railway



HON. M. E. INGALLS, PRESIDENT OF THE "BIG FOUR."

commissions of the different states. It is a body that is supposed to stand as an arbiter between railroads and the people, as a friend of both; a body that ought to and does have great influence, and especially in reference to legislation regarding railroads. If this audience should agree upon any legislation in that respect that was needed, I presume there would be no difficulty in inducing your congress to enact it into law, and believing as I do that it is essential to the public interest to secure legislation, I am pleased to have this opportunity of presenting my views and endeavoring to enlist you in the reforms which I think are so vital. We have reached a crisis in railway management when something must be done if we would avoid disaster, not alone to the railroads, but to the material interests of our country.

"For 30 years a contest has been waged in legislatures, in congress, and before the courts, by the people on one side who believed that railroads were public corporations and subject to control by the power that created them, and, on the other hand, by officials of the railroads, who did not believe that such control was legal or practicable. State after state asserted its right. These rights were contested from one court to another, and decided from time to time always in favor of the people, under certain restrictions. It finally culminated in 1887 in the enactment of the interstate commerce law, and since then there has been hardly a day when some provision of that law was not under consideration by the courts or by congress, until now we may state it is a fairly settled by the highest courts in the land that the legislatures of the states have control over railroads with reference to their local business, subject to certain conditions, and that the congress of the United States has the power to regulate interstate business. The supreme court of the United States, which is the highest arbiter of these differences, has just decided that such control over the states, or regulation, must be reasonable, and that rates cannot be reduced below cost, expenses and a fair return upon the investment.

"The railway managers had accepted the law, and were endeavoring to obey it, and the interstate commerce law and adapt their management to it when, in March, 1897, a decision was rendered by the supreme court which produced chaos and confusion in the management of the railroads, and which the Sherman anti-trust law, called, which it had not been supposed applied to railroads, did apply to them, and under the construction of that law by the courts it was practically impossible to make any agreements or arrangements for the maintenance of tariffs. In the case brought against the Joint Traffic Association in New York, this view has been combated by the railroads and it was modified by the courts.

"It is well, perhaps, that we should look the situation fairly in the face, and while I do not care to be an alarmist, I feel bound to describe plainly to you the condition today, so that you may understand the necessity for action. Never in the history of railroads have tariffs been so little respected as today. Private arrangements and understandings are more plentiful than regular rates. The larger shippers, the irresponsible shippers, are obtaining advantages which must sooner or later prove the ruin of the smaller and more conservative traders, and in the end will break up many of the commercial houses in this country and ruin the railroads. A mania seems to have seized upon some railway managers, and a large portion of the freights of the country is being carried at prices far below cost. Other than the maintenance of tariffs the condition of the railroads is good; their physical condition has been improved; their trains are well managed, and the public is well served. If a way can be found by which tariffs can be maintained and the practice of secret rebates and private contracts discontinued, the future will be bright and above everything else, the great public—two-fifths of our people are interested directly in railroads, either as employees or employees of manufacturers that are engaged in furnishing supplies to the railroads. Can any body picture a process of one-fifth of our people engaged in a business that is losing money? The railroads serve the public in so many ways that their prosperity is closely interwoven with the prosperity and comfort of the ordinary

people. One thousand millions of dollars were paid out last year by the railroads from their earnings to employees of manufacturing in this country; 511,000,000 of passengers were carried; 13,000 millions were carried one mile; 76,000,000 of tons of freight were moved; 26,000 millions of tons were moved one mile. Do you think that any interest performing such immense service as this can be in difficulty and the balance of the country not feel it? Forty millions of dollars were paid out for public taxes. Over three thousand millions of dollars that have been invested in railroads have earned no dividend for years. This is not 'water,' as some populist orator will say, but good, honest money. These securities are held all through the land, and their failure to pay any return has brought disgrace upon us abroad and suffering and want in many a family and community at home.

"One of the chief difficulties with the law as it stands today is that the punishment for private contracts and rebates is entirely out of proportion to the offense. The imprisonment clause was put in as an amendment to the interstate commerce law, and I believe the commission and everyone who has watched its work, are in agreement with me that it has been a failure; more than a failure, that it has caused perhaps more demoralization than anything else. The public has not believed in it; it has been impossible to secure conviction; it has prevented the railway official who desired to be honest from complaining of his competitor whom he thought was dishonest. In fact, it has been what every law is that is not supported by public sentiment—a failure. What, in fact, is the manner of conducting business today? The railway official who desires to be honest and law-abiding sees traffic leave his line and finds the freight that he was carrying hauled to the warehouse of his rival, the earnings of his line decreasing and complaints from the management of loss of earnings and in the distance he sees looming up the loss of his position. At the same time, the shipper who desires to obey the law sees some rival selling merchandise to his customers at prices he cannot meet, and he knows very well that he is securing concessions from some railway to enable him to do this. The railway agent and the shipper who wish to obey the law sit down together and look it over. What relief is there for them? They can complain of their rivals, possibly compel them under the interstate commerce law and send them to the penitentiary, but such action would bring down upon them the condemnation of the public and would ruin their business; for, as I stated before, the public does not believe in this severe feature of the law, and will not support anyone who enforces it. The result is, these men, in despair, are driven to do just what their opponents are doing—they become lawbreakers themselves. I have drawn no fancy picture; it is what is occurring every day around you.

"Is it wise, is it broad statesmanship, to leave a business as large as that of the railroads—one in which one-fifth, at least, of our population is engaged, one which affects the comfort and happiness of nine-tenths of the people—is it wise to leave it outside of the law? It is said that the most expensive occupation to the community is that of the burglar, he has to spend so much time and destroy so much to get so little. Is it worth while to force the great railway interests of the country into the same position? "Who opposes this legislation? First, certain people who desire the government to own and operate the railroads. Second, others who wish that the interstate railway commission should make all rates. Third and lastly, certain railway managers who are opposed to any and all legislation and who object to any control, and believe that they should be left entirely alone.

"All of us who have any interest in our country, who desire its prosperity, are interested in the solution of this great question. It is not a time for the demagogue to howl about corporations. It is not a time to talk about the wrongdoings of railway managers. There are always some in any business, who will not do right, and there always will be, but the great mass of railway managers to-day, I assure you, are as honestly seeking a solution of this question as are you or any member of the legislative body. I believe I voice the belief of a very large majority of them that the two provisions I have mentioned are necessary and will lead to the settlement of this question. If this body will join and heartily endorse this course and work for it, its accomplishment can be attained. We have unwittingly in this country applied to railway laws that it was never intended should be applied to transportation companies of this nature. We have gone back and taken decisions that were wise a hundred years ago, when civilization was in its infancy and when the masses needed certain protection, and have endeavored to apply these same principles to the great transportation interests of modern times. The courts, unfortunately, have followed in that line. Every business man, every statesman, knows that it is a mistake, that we have here an immense interest such as the world has never seen, and the principles which should govern it must be worked out in harmony with the age and the needs of this country. There should be no friction between the interstate commerce commission and the railroads; there should be none between the state commissions and the railroads. There has been too much of a feeling with these bodies that the railroads were against



them. In the contest with railroads, in the courts, the commissioners have drifted away somewhat from the ground they ought to stand on; that is, they should be the friends of the railroads instead of their enemies, and should aid in securing the proper legislation, and the railroads, in turn, should give their support to make such legislation effective. I believe it can be done in no better way than by the true method I have pointed out. First, the change of the criminal section, second, authority to contract and divide business. Either one of them would be of great advantage, but we ought to have both. There also should be such legislation as will give more force to the recommendations and orders of the interstate commerce commission. Instead of trying to break down the commission, the railway officials should try to build it up, should make the commission its aid and use it as a bulwark of strength in congress and in the states to break back the tide of populism that is rising continuously against them.

SIGNALING BY MEANS OF KITES

Photographs Can Be Taken of an Enemy's Works While the Kite is Suspended.

Communication from war ship to warship will soon be as easy as carrying on a conversation between two military posts on land, and by the same electrical means, the telephones. The English naval authorities have just tested with great success a suggested novelty in the way of communication at sea which promises to render obsolete the present methods of signaling.

Commander R. G. O. Tupper of the Royal Navy experimented with a "kite telephone." The kite used was of the regulation sort, except that it was minus a tail. It was six feet long and three feet wide at the broadest point. In place of the tail the kite carried two lines, one of which was retained on board the Daring, the instructional torpedo boat destroyer, from which the experiments were conducted. With the wind between the two lines referred to it was found that the kite was so easily managed that it was no trick at all to drop letters or even a hawser into another ship, and in this way establish communication.

Following this experiment came one with a wire. The end of the wire which the kite bore away from the ship was dropped upon the deck of H. M. S. Dauntless, where it was secured by the electrician of the ship and attached to a telephone apparatus in waiting. The other end, which had remained aboard the Daring, was also attached to a telephone, and as soon as the task was completed the two ships were in perfect communication. The kite remained suspended, secured by two lines, for more than four hours, during which the communication between the Daring and the Dauntless was uninterrupted.

considerable height than one which may float at the top of the mainmast, or be waved from the summit of a hill. Add to these facts this latest development, the kite as a telephone wire carrier, and the indications of a limitless future are plain.

Experiments with kites at Governor's Island in New York harbor have conclusively proven that it is possible to send up a camera from inside the lines of one army—the camera being attached to a kite—and take an accurate photograph of the intrenchments or position of the enemy thereby, and to learn in fairly accurate fashion of their number. On several occasions this year in New York photographs have been taken of parades in this fashion, and with the very best possible results. To suggest that this could be done fifteen months ago would have provoked derision. There is just as much reason for not regarding the telephonic kite flying experiment with credulity as there would have been for degrading the other. The results of the English experiment, even though they have just become known, have already created no little talk in United States naval circles.

Smokeless Fires.
The Berlin correspondent of the London Times has given some particulars of a new invention by one Carl Wegener, which has for its object the elimination of smoke from a furnace, accompanied by a notable saving in the consumption of coal. The success of the system depends upon feeding the furnace with powdered coal, instead of the "well-screened" lumps which hitherto have been regarded as the most advantageous form of such



TELEPHONING BY MEANS OF KITES BETWEEN SHIPS.

The achievement is only evidence of what electricians of the navy, of both England and the United States, have long held to be possible. They have declared that there was no reason why communication of this sort should not be established between ships a few hundred feet apart, if the weather were at all pleasant. Of course, in a gale it would be impracticable.

The experiment that was made by the officers of the Daring and the Dauntless had another valuable result. It showed that it is possible to arrange for a new system of signals from one ship to another that would be greatly superior to any flag system which could be conceived. If the telephone wire can be arranged in this manner, there is no reason why telegraphic communication can not be made in a similar fashion. In this case an operator aboard the flagship could carry on a conversation with his fellow-operator aboard one of the fleet without difficulty. The admiral's orders could be easily transmitted from time to time, and often avoid what is now considered necessary boat service. It might be thought that the flying of a kite under these circumstances would be a matter of extreme difficulty, but kite flying under the latest methods has become a science. What used to be a schoolboy's sport has now become a subject of study by professional men, and it seems quite likely that before long even greater results will be obtainable than has ever been the case at Portsmouth.

As a means of signaling, the kite is firmly believed, not only by naval officers, but those of the army, to be fraught with great importance when the future is considered. It is, of course, very much easier for a signal to be seen that is elevated to a con-

fuel. The coal dust is fed into the fire from a container in front by means of a tube which terminates in a revolving sieve. This sieve is kept in motion by the draught, and has the effect of scattering the fuel over the furnace in such a way that it is at once inflamed without smoke and with very little ash. Coal of comparatively low quality can be economically used in this powdered form, and the only drawback to the process seems to be the necessity for using a separate machine for the grinding of the coal to powder. On the other hand, the slack or dust which forms a necessary by-product of the coal industry will find here a field for employment which will be much appreciated by owners of mines and merchants generally.

More Days to Come.
In Spain the people take no note of time, not even from its loss. Everything is to be done mañana, tomorrow. A wealthy Englishman, who had long lived in Spain, had a lawsuit. He pleaded his cause in person, and knowing the customs of the country, won his case. The victory cost him three days of trouble and expense, so that when the judge congratulated him on his success, he replied: "Yes, that's all right; but it has cost me three days, and time is money. I am a busy man, and these three days are lost forever." "Oh, you English!" answered the judge; "you are always saying that time is money. How are you to get your three days back? I will tell you. Take them out of next week; surely there are plenty more days to come!"

The University of Calcutta is said to be the largest educational corporation in the world. It examines more than 10,000 students annually.

PRIVATEERING.

If Spain, in her puny wrath, permits that unbusinesslike and unjust form of warfare known as privateering, the consensus of opinion among the powers is that she will get altogether the worst of the bargain.

A first-class privateering equipment is rather an expensive affair in the first place, and there are so many risks to be run and such danger of capture and demolition that the chances are as about fifty to one that the offender would be brought up with a round turn, stripped of the munitions and ensigns of warfare and popped into prison, there to ruminate on the vicissitudes of human affairs and the changes that have taken place since the days when Captain Kidd made his record and when thousands of bold and adventurous spirits manned ships, cracked skulls, cut off heads, meanwhile lustily shouting the old song, "Pull many a year, a pirate bold, I've sailed the Spanish main."

A Spanish privateer must be extremely well posted in these days to successfully carry out his nefarious enterprise. He will need not only a small arsenal at his belt, but a certified bill of lading to give him information as to the articles he seeks, and whether they are American or belonging to some other tribe or nation.

Of the enormous amount of foreign goods brought to this country but a mere trifle comes in American bottoms. For example: "In January, out of a total value of imports of \$50,825,721, American bottoms carried only \$8,711,593, and out of exports valued at \$106,753,524, only \$5,155,544 in value were taken out under the American flag. The figures for February tell the same story, for out of a total importation of \$53,113,736, American ships brought only \$9,270,058, and of exportations of \$93,317,202, only \$4,442,327 was under our flag. Of the exports in February carried in American bottoms only \$1,029,066 were to Europe and Asia, and the imports so carried from those continents were valued at \$4,329,184. The European and Asiatic countries with whom the largest trade was carried on under the American flag are France, the United Kingdom, China and British East Indies and Japan."

Our waters are full of foreign craft that find it to their advantage to bring in all sorts of wares to our shores and take back such articles as their trade demands. The trade with Cuba has been something enormous. Of course, this is largely cut off. In 1892, Cuban imports and exports were valued at nearly \$100,000,000. In 1896, the trade had dropped off about one-half; the present year's business shows a still further reduction. This Cuban trade was largely done with American vessels. Of course, everything American being now barred, recourse must be had to foreign handling for whatever we may receive from Cuba during the continuance of the war.

The best authorities are of the opinion that if Spain undertakes to sift out goods intended for the American trade, from the great bulk of commercial products, she will find that she has a greater job than she bargained for.

Domestic trade, that is, the coast trade, she cannot possibly interfere with. In the event of any attempt to do so, all articles can be put upon the railroads. In January, 1898, merchandise actually handled by railroad cars and land vehicles amounted to nearly \$6,000,000. The transportation by water was something over \$5,000,000. The shipments were made by land to Mexico and by way of the Canadian Pacific railroad.

It would be the work of a very short time in case privateering became annoying to transfer to foreign shipping whatever goods Americans desired to handle. It is, therefore, easy to see that Spain is reckoning without her host, and in the event of her becoming particularly insistent or saucy and interfering with foreign vessels, she would be quite likely to receive a rebuke that would, to say the least, convey a lasting impression.

Wireless Telegraphy.
In the attempt to turn "wireless telegraphy" to practical account and make it a commercial success, Mr. W. J. Clarke of New York has produced an apparatus for sending and receiving telegraphic signals without wires, which is to be placed upon the market. Where for any reason it is desired not to use Morse signals, a special receiver is provided, which is furnished either with a vibrating bell, or with an incandescent lamp, the latter enabling the person who receives the message to read it visually. Inasmuch as Marconi's experiments have shown that telegraphic signals can already be sent ten miles, or more, without wires, it is hoped that the new system will have a rapid development.

Facts About Vaccination.
A pamphlet entitled "Facts About Smallpox and Vaccination" has been issued by the council of the British Medical Association, giving statistics as to the efficacy of vaccination and showing what the diminution of mortality has been since the time of Jenner. Facts are quoted from the statistics also of other countries, as, for instance, of Prussia, where rigidly enforced and systematic vaccination has practically stamped out smallpox, the mortality being seven per 1,000,000, whereas in the adjoining country of Austria, where vaccination is not compulsory, it is over 450.

An expedition has just left Stockholm for Eastern Siberia in search of Mr. Andree and his companions. The expedition consists of Mr. Stadling, the polar explorer; Dr. Nilsson, the botanist, and Mr. Frankel, an engineer, one of whose brothers is a member of the Andree exploring party. Teacher (to a scholar with a very dirty face)—Jimmy, I think you are just about as dirty as any boy in the city. Jimmy—You'd ought to see my brother. Teacher—Does your brother have a dirty face oftener than you do? Jimmy—Well, mother says she don't believe he's washed his face since he got it.—Truth.

A Valuable Dictionary.
Daily Inter Ocean, Chicago: "Every promise made by the publishers has been fully redeemed. It is, indeed, a grand book. . . . That there is a drift conservative yet real toward the simpler forms of spelling has been recognized throughout the work. . . . See display advertisement of how to obtain the Standard Dictionary by making a small payment down, the remainder in installments.

"There is nothing more healthful and nourishing," said Mr. Skinphillit to his wife, as he looked over his morning paper—borrowed—and noted the price of wheat, "than good corn-bread. See that we have more of it hereafter, will you?"—Chicago Tribune.

Important Iowa Inventions.

Among the subjects of recent applications for patents prepared by us is an acetylene gas generator that may be small and used as a hand lamp or large to supply a multiplicity of burners and located wherever desired. The usual gas holder telescopically connected with a water tank and valves and valve gearing are dispensed with and the flow of water and gas automatically regulated by hydrostatic pressure and gas pressure. D. D. Harge of Prairie City is the inventor. An apparatus for illustrating the phenomena of thunder and lightning mounted on a portable platform generates and stores static electricity in an artificial cloud suspended above the platform in such a manner that when a miniature building is placed on the platform visible zig-zag currents will leap from the cloud and make splinters fly from the building as sharp reports in imitation of thunder shock the ears of the beholder. W. Dodd and A. D. Struthers of Des Moines, inventors.

Valuable information about obtaining, valuing and selling patents sent free to any address.

THOMAS G. & J. RALPH ORWIG, Iowa Patent Office, Des Moines, Iowa, May 11 1898.

Globetrotter: "Did you ever travel on a personally conducted tour?" Mr. Meeker: "Often." Globetrotter: "Whom did you have for manager usually?" Mr. Meeker: "My wife."—New York Weekly.

No-To-Bac for Fifty Cents.
Guaranteed tobacco habit cure, makes weak men strong, blood pure. 50c. All druggists.

If silence is golden all deaf and dumb persons ought to be millionaires.

What You Get

When You Buy Medicine is a Matter of Great Importance.

Do you get that which has the power to eradicate from your blood all poisonous taints and thus remove the cause of disease? Do you buy HOOD'S Sarsaparilla and only Hood's? If you do, you may take it with the utmost confidence that it will do you good. Remember

Hood's Sarsaparilla is America's Greatest Medicine. \$1; six for \$5. Hood's Pills cure indigestion. 25 cents.

Sour Stomach

"After I was induced to try CASCARETS, I will never be without them in the house. My liver was in a very bad shape, and my head ached and I had stomach troubles. Now after taking Cascarets, I feel fine. My wife has also used them with beneficial results for sour stomach."