

reasonable. In passing upon this case the Court held that by the passage of the Inter-State Commerce Act Congress had vested the rate-making power solely in the hands of the railroads; that the roads having fixed rates in the manner provided, such rates became lawful, and to refund any portion of the money collected would be unlawful unless it could be shown that the rates were arrived at by agreement between rival carriers, in which case any rate so made would be unlawful. It may be interesting to know that in leading up to this view the court held that it was manifestly impossible to establish reasonable rates by jury trial, because no two juries reach the same conclusion in analogous cases; that uncertainty and confusion would necessarily follow an attempt to find a reasonable basis or a safe rule by such means.

* * * We are led up to three distinct propositions: 1. Rates must be reasonable in all respects. 2. To be so they must not be subject to frequent or violent fluctuations. 3. Competition must have full sway; to prevent it is criminal, although it inevitably causes frequent and violent fluctuations of rates. If these three propositions are correctly stated, and if the principles involved are to be continued as essential to good public policy, what good can be accomplished by further legislation? The reason why the Inter-State Commerce Law is not more fully complied with is that every thing or act necessary to its observance is specifically prohibited by law.

The New Cafe Cars of the Erie.

Three 70-ft. cafe cars have lately been added to the equipment of the Erie Railroad and are running in trains No. 1 and No. 2, between New York and Buffalo. The dining and cafe car service has previously been met with four cafe cars, of smaller size, and six regularly furnished dining cars.

The new cars are roomy and pleasant, having many useful and ornamental features in detail, which are outgrowths of the experience of Service Superintendent Clifford in cafe-car management. The cars were designed by Mr. Robert Gunn, Foreman Carbuilder of the Buffalo shops, where the cars are built.

The total weight is 110,000 lbs., carried upon Pullman six-wheel trucks, with 36-in. steel-tired wheels having journals 4 1/4 in. x 8 1/2 in. Automatic frictionless sidebearings are used.

The Sessions standard steel platform is used at both

matter which was not fully dealt with at that time, is the report of the Joint Committee, embracing a revised code of definitions and rules for block signaling. In this report the committee recommended an entirely new set of rules for all of the three different methods of block signaling, and these rules were adopted by the association substantially without amendment. The definitions are not materially changed, but the rules are radically rearranged. The rules for the telegraph block system begin with No. 301. The most novel rules are Nos. 316 and 317, prescribing the procedure for blocking by telegraph. The symbols used under these rules are as follows:

1. Display stop-signal. Answer by S. D. or 5.
2. Block clear. Answer by 13.
3. Block wanted. Answer by 2 or 5.
4. Train has entered block. Answer by 13.
5. Block is not clear.
6. Train following.
7. Opening block station. Answer by Nos. of trains in the extended block with time each train entered the block.
8. Closing block station. Answer by "13" after receiving transfer of the records of trains which are in the extended block.
9. I understand.
10. Train following, display stop-signal. Answer by S. D.

A note says: "Additional signals may be used if desired. The signals prescribed under the Controlled Manual Block Signal System should be used for such additional signals wherever applicable."

Rule No. 315 requires a block record to be kept at each block station, but does not say what this record shall contain. Rule 317 (for single track) reads:

To admit a train to a block the signalman must examine the block record, and if the block is clear, will give "1 for _____" to the next block station in advance. The signalman receiving this signal, if the block is clear, must display the stop-signal to opposing trains, and reply "S. D. for _____." If the block is not clear he must reply "5 of _____." The signalman at the entrance of the block must then display the proper signal indication to the train to be admitted.

Where permissive blocking is allowed the following rule applies:

To permit a train to follow a freight train into a block, the signalman must give "71 for _____" to the next block station in advance, to which the reply "5 of _____ S. D. for _____" must be made. The approaching train will then be admitted to the block [Under caution-signal or with caution card].

The signal "4," prescribed in the code, is to be given for each train as it enters a block.

In the rules for enginemen is a requirement that an engineman running through a block, say from A to B, on a caution card, must deliver the card to the signalman at B, and personally ascertain from him that the next block (B to C) is clear. Enginemen must not accept clear hand signals as against block signals. When a signal

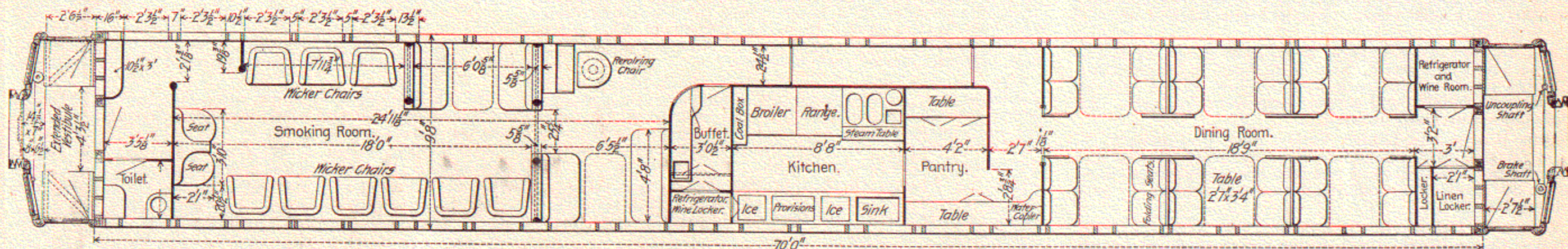
interested in it, including names of the American roads which participated in the Congress of 1895, and in previous congresses; and programmes of the last and the coming congresses.

The Canal Surveys of New York.

The act directing the State Engineer and Surveyor to cause surveys, plans and estimates to be made for the improvement of the canals of the State of New York became a law by the signature of the Governor on April 12, 1900. Steps were immediately taken by State Engineer and Surveyor Edward A. Bond to carry out the provisions of this act. Mr. Trevor C. Luetzé, M. Am. Soc. C. E., the present Division Engineer of the Eastern Division of the State canals, and Mr. D. J. Howell, formerly in charge of the investigations of the Eastern Division of the Oswego-Mohawk route for the Deep Waterway Commission, were appointed as consulting engineers to the State Engineer to take charge of and direct the making of all surveys, plans and estimates as directed to be made under the above act. With a view to uniformity in all surveys and records, a series of instructions for survey parties was prepared by the consulting engineers and a copy put in the hands of all assistants in immediate charge of field parties. Requisition was made on the Civil Service Commission for the available list of employes for the survey to be made and steps were immediately taken to procure this list and to make all the preparations incident to the beginning of the surveys and the organization of the field parties.

As a result of the large amount of valuable information, including maps and borings to denote the class of material and depth of rock surface, that was placed at the disposal of the State of New York by the United States Board of Engineers on Deep Waterways, the amount of survey work to be accomplished as authorized in the bill will be materially reduced, especially does this refer to that portion of the route between Oneida Lake and the Hudson River. The obtaining of this information was, of course, contemplated when the bill was drawn and the appropriation for the surveys made.

Seven survey parties are now engaged on the Middle Division of the canal system, three of these working from the east line of Oneida county westward and four other parties from the vicinity of Three River Point, at the junction of the Seneca and Oneida Rivers, westward.



Floor Plan of the New Cafe Cars of the Erie Railroad.

ends of these cars, there being no "blind end." The extended vestibule is, therefore, part of the design, shown in the plan view of the cars, appearing with this description. Lighting is by Pintsch gas; heating by steam. The body color is Pullman green and the lettering only the word "Erie" set between terminal names, "New York" and "Buffalo." The effect is pleasing.

The interior is divided into but three main compartments; the dining-room, 18 ft. 9 in. long, the kitchen and buffet centrally placed, and the smoking room, 24 ft. 11 1/2 in. long, a partially isolated part of which, 6 ft. 5 1/2 in. long, is the writing room. The dining room seats 24 people as shown in the plan. The seats are high-backed and leather upholstered. In the smoking room proper are seven wicker and two leather-bound chairs. In the writing room, opening as a part of this room, are two seats and a lunch table, and a revolving chair and writing desk. These accommodations are free for the use of any first-class passenger on the train. The table service is of substantial, plain silver, specially made for the purpose, and in keeping with the simple elegance which marks the design and furnishings throughout. The kitchen and its accessories are well worth careful inspection by designers of cars.

In trimmings and decoration nice discretion has been shown. Severely plain panel effects in the mahogany interior are softened to the right degree by Roman columnar designs, mirrors, and tasteful carving. Grill work above the passage-ways and French velour portieres lend a touch of luxury to the pleasing whole. The headlining of the smoking room is of white oak veneer. That in the dining room is white enamel with gold border tracery containing a very narrow vein of black. The deck lights are of ground glass, figure-etched, and guarded by double netting against admission of dust. The arrangement of swing doors, shown in the main passage, gives isolation of the smoking room from the dining room.

Lunch is served on order to those occupying the smoking room. Supplies are carried in lockers beneath the car and separate chill compartments are provided for the several parts of the car, as shown.

American Railway Association—April Meeting.

BLOCK SIGNAL RULES.

The proceedings of the April meeting of the American Railway Association at Chicago were briefly reported in the *Railroad Gazette* of May 4, page 284. The principal

can not be cleared the signalman must use either a clearance card or a caution card.

In the requisites of installation for the automatic system No. 6 reads:

"Signal connections and operating mechanism so arranged that a Home Block Signal will indicate Stop after the head (or rear) of a train shall have passed it."

"Track circuits" are set down among the "adjuncts" of the automatic system.

CAR SERVICE RULES.

The principal discussion at the meeting was on the report of the Committee on Car Service, and had to do with the question, what constitutes delivery of a car to a connecting road? The meeting also discussed rules for sending foreign cars home. The report was not adopted, but it was the sense of the meeting that the receiving road ought not to be at liberty to postpone the acceptance of the contents of a car until its inspector is able to examine the running gear, etc. In other words, the acceptance of a car and its lading, with the accompanying assumption of liability for theft or destruction by fire, is a separate question from that of responsibility for condition of the wheels, drawbars, etc. In the matter of sending cars home the committee believed in a pretty stringent rule, but certain members thought that more discretion ought to be allowed. For instance, a superintendent at Cincinnati thought that if he should have a Boston & Maine car which was wanted over in Kentucky to load for Portland he ought to have the privilege of sending it there without first consulting the owners. A motion was made to amend the rule concerning payment for trackage when a train is detoured on account of a washout or similar obstruction, so that the owner of the train should assume all risk of accident regardless of whose neglect caused it. The committee was also requested to consider whether a rule could be made for computing mileage so as to stop such abuses as terminating the mileage at an outer yard several miles short of the actual point of destination.

The Committee on Statistical Inquiry included in its report, but without comment, the rules of the Association of American Railway Accounting Officers for recording train mileage and locomotive mileage. These are shown on pages 217-219 of the Proceedings.

The present pamphlet contains five pages of information concerning the International Railway Congress. This matter embraces condensed accounts of the history of the Congress, so far as American railroads have been directly

Four boring parties, with necessary machinery and plant, are now organized for making borings on this division of the canal with a view to obtaining the proper information for the estimates as to the character of the material to be excavated and the depth below the surface of the rock. On the Western Division of the canal system six survey parties are now engaged; three of these are working from near Clyde westward toward Rochester, and three others from a point west of Rochester toward Buffalo. Four boring parties are also organized to make the borings along this route.

In view of the large amount of information obtained from the Deep Waterway Commission, very few surveys will be required on the Eastern Division, between Utica and the Hudson River. Four boring parties will be organized at an early date to make what additional borings are required along this division in addition to those already made by the Deep Waterway Commission.

A force of engineers is now employed at the office of the consulting engineers in compiling all the information available up to the present time in connection with the Champlain Canal with a view to determining what additional surveys and borings necessary are to be made. The maps obtained from the Deep Waterway Commission will also furnish a large amount of information along the Champlain route, more especially with a view to considering the question of the utilization of that portion of the Hudson River between Troy and Fort Edward instead of following the route of the present canal. It is the intention also to compile all available information along the route of the Oswego Canal in addition to that furnished by the maps of the Deep Waterway Commission and to supply by surveys and borings any additional information needed for a full consideration of the conditions along this canal and a proper estimate of the cost of enlarging it. The question of locks is being considered in the office of the consulting engineers.

Estimates of cost will be made both along the line of the present canal from Little Falls to the Hudson and also with a view to the utilization of the Mohawk River for the canal by canalizing it. Similar estimates will also be made between Little Falls and Rome. Surveys and estimates of cost will be made for some 81 miles of new canal leaving the present canal at or in the neighborhood of New London west of Rome and extending westward by way of Oneida Lake, Oneida and Seneca Rivers and joining the present canal at or in the neighborhood of Clyde. Surveys and