

is code "W" and has 999 numbers. When No. 999 has been reached it reverts to one again. The time freight is thereafter reported at each succeeding terminal by its code instead of the car number and initial. This saves very largely in the wire work. What is known as the "15" report shows on what train the freight is forwarded, together with the destination, etc. This blank, also known as the "consist" report, is in all its essential details precisely the same as the consist report shown in the description of the St. Louis & San Francisco system, page 161, form 106-A. The yard master or agent at the terminal then makes a "17," or passing report of these cars. This is also substantially the same as the Frisco system's passing report 52, except that the Frisco report devotes several lines as a blank asking explanation of delays which may have occurred. In the event that a car is set out, a "19" set-out report is made (see Frisco set-out report 21). When the car is set out of a train the conductor leaves this report with the telegraph operator at the point where the cars are set out and the operator immediately wires the information given thereon to the car service agent and to the chief train dispatcher. Should the freight be transferred to another car, the necessary information is entered on the waybill in the place provided therefor, but no change is permitted in the original code letter and number, which must identify the shipment to its destination. The delayed cars forwarded report No. 21, which is shown herewith as characteristic of the system.

*For previous time freight articles see August 25, Atchison, Topeka & Santa Fe; August 25, Boston & Maine; August 18, St. Louis & San Francisco.

Time Freight Card Way-Bill.Record of Way-Bill.Record Card, Foreign Cars.

Form 217.

6-29-05. 30M

Chicago and North-Western Railway Co.

21 DELAYED CARS FORWARDED REPORT.

The following cars, way-billed TIME FREIGHT, which have been delayed, were forwarded from

Station, _____ 190_

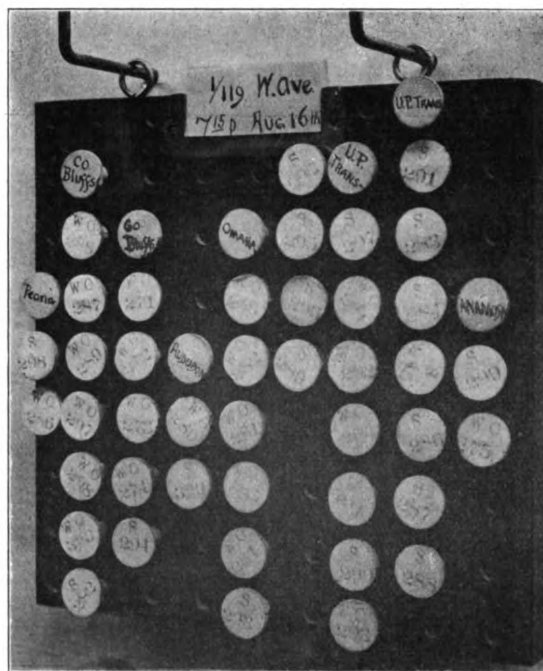
CODE LETTER AND NUMBERS			TIME FORWARDED	TRAIN NUMBER
Code Letter.	From Lowest Number	To Highest Number		
B	C	D	F	G
			M.	
			M.	
			M.	
			M.	
			M.	
			M.	
			M.	
			M.	

(A) _____ Yardmaster.

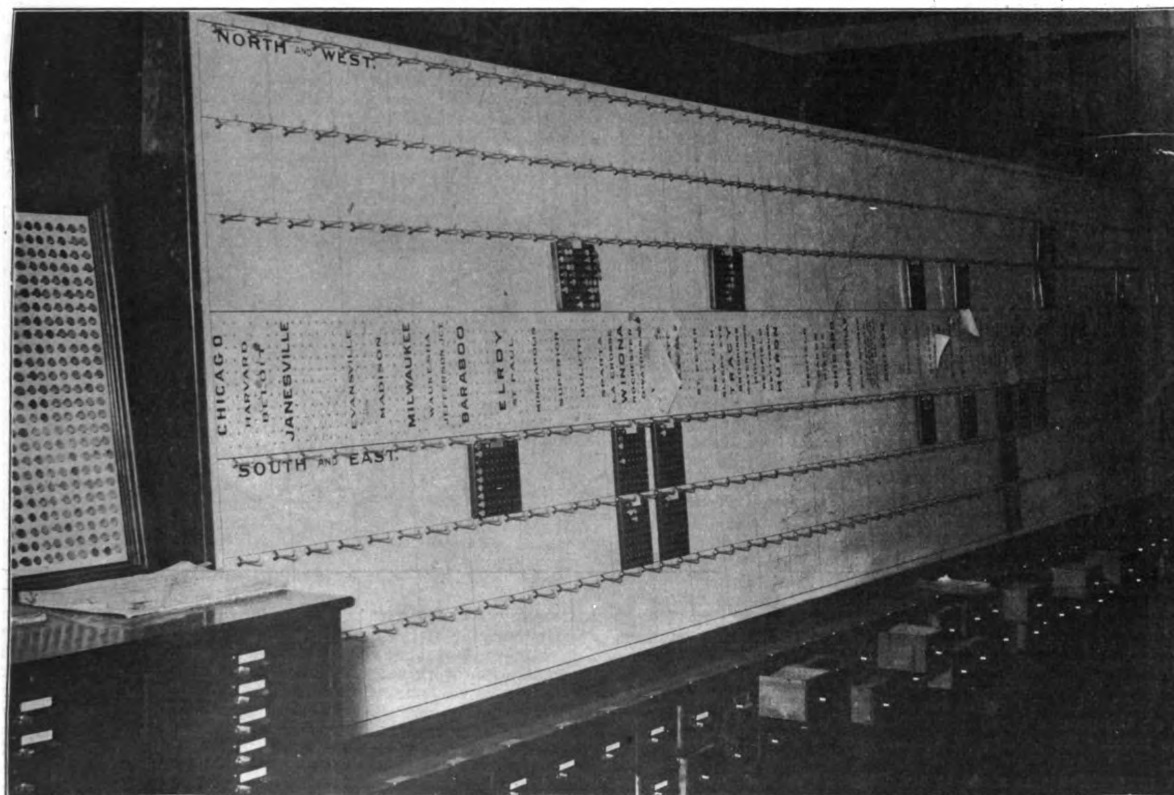
(B) _____ Agent.

This form will be used by Agents and Yardmasters to report to Car Service Agent the forwarding of cars loaded with Time Freight, which have been delayed for whatever cause, when not sent out in proper train.

Delayed Car Report.



Enlarged View of Train Board.



Graphic Method of Keeping Track of Time Freight, Chicago & North-Western.

does not differ in any material particular from the St. Louis & San Francisco report covering the same thing, except in this alone, that an effort has been made to print each of the Frisco reports on a different colored paper as an additional means of glance identification. This is not done on the North-Western, except that the time freight card waybill is red and the foreign car home route and record card is green.

Perhaps the most characteristic and interesting part of the Chicago & North-Western method is the neat and graphic time freight car and train record, which is illustrated in the accompanying photographs. On receipt of the "15," or consist, report in the car service agent's office, showing the forwarding of time freight in a certain train, a train is made up on a board, 7 in. x 7 1/4 in., which is bored full of holes to contain the plugs which are marked with the code letter and number corresponding to the code letter and number assigned to each coding station. After this train is made up it is hung on the board between the terminals, in accordance with the location of the train. This board remains in this location until its train is reported out of the next terminal, when the board is again moved. On arrival of the train at some terminal a "17" report is received, showing arrival of the cars and delivery to con-

4017
4016. 12-8-03

TIME FREIGHT

FROM _____

TO _____

DATE _____

DATE _____

Time Freight Card.

necting lines, when the board is taken off and the codes distributed in cases provided for this purposes. If a car is set out between terminals, or fails to go forward from a terminal in its proper train for any reason whatever, a "19" set-out report is made and this report is plugged, together with the code letter, number and destination in the board at the point where the car is set out and remains there until a report is received showing forwarding. A car of time freight which has started must appear somewhere on the board, either in a train, in a terminal yard, or set out at some intermediate station. After the "15" and "17" reports are checked with the board they are filed in the drawers shown, for reference. The accompanying forms show the time freight card waybill and the record of it; two forms which are quite simple and complete in the North-Western system. The foreign car home route and record card, which is also shown, is a rather uncommon form. This card, as stated, is green.

For particulars of this system we are indebted to the courtesy of Mr. R. H. Aishton, Assistant General Manager, and Mr. E. E. Betts, Car Service Agent.

National Railroad Commissioners' Convention.

The seventeenth annual convention of the National Association of Railroad Commissioners was held at Deadwood, S. Dak., August 16 and 17. Twenty-three states were represented by about 50 commissioners, assistants and secretaries. According to one of the speakers, no member of the Interstate Commerce Commission was present. Addresses were made by Governor Elrod, of South Dakota; President Ira D. Mills, of the Association, and others. The first report presented was one suggesting improvements in the annual statistical forms for reporting expenditures on maintenance of way and maintenance of equipment. The proposed changes were in the line of simplification and of including items sometimes treated as doubtful. For example, in M. W. it is proposed to include replacement of all buildings, including cost of additional buildings necessary to operation of property; in maintenance of equipment, replacement of shop tools, including tools necessary to maintain all equipment up to the general standard of efficiency. Objection was made on the ground that this would make it too easy for railroads to use income for permanent betterments. No definite action was taken.

A proposition was made to ask Congress to give precedence in Federal courts to cases looking to the enforcement of state railroad commissioners' orders and orders of the Interstate Commerce Commission in which the government is not a party. After considerable objection the resolution was carried.

There was a long discussion on railroad taxation and plans

for ascertaining the value of railroad property; and, as usual, a great variety of facts and views were brought out. No action was taken, the subject being referred back to the committee (which, however, will not consist of the same men as last year) with instructions to report, if possible, a plan for a uniform system of railroad taxation.

What powers should be granted to railroad commissioners was again discussed, but naturally no agreement was reached, as representatives of the "strong" and of the "weak" commissions cannot agree with each other. Uniform classification was again thrashed over, the committee varying its repeated recommendations by proposing a plan to divide the country into 12 sections, each to have an equal railroad mileage, each to have a representative on a committee which should prepare a classification in two years, then allow one year for objections, then another year to consider the objections, and then—presto, the thing is done.

Interstate Commerce Commissioner Clements made a report summarizing the laws which have been passed on railroad topics by the several states within the past two years, and the recommendations for legislation which have been made by state railroad commissions. The committee on the Interstate Commerce law recommended nine amendments to the present law, embracing the usual propositions to give authority to establish rates, to regulate private car lines, etc.

The President of the Association for the ensuing year is Commissioner W. G. Smith, of South Dakota, and the next meeting is to be held at Washington, D. C., April 2, 1906. At that time it is proposed to devote four days to business sessions.

Railroad Shop Tools.

(Continued.)

LATHES.

The accompanying illustration, Fig. 1, shows the latest design of 40-in. x 40-in. planer made by the New Haven Mfg. Co., New Haven, Conn. These machines are made in two sizes, which plane 10-ft. and 12-ft. inside of the pockets respectively. They are designed for the heaviest class of work. The beds are very deep and wide and are strongly braced; the table is wide and thick and has deep ribs; the three T slots are planed out, and holes are drilled. The driving motion is by two belts, one on each side of the machine, thus giving a very steady motion; the gearing is contained entirely within the bed and is mounted on short steel shafts of large diameter, running in cap boxes. The cross bars are very deep, are strongly braced, and can be quickly raised or lowered by power by friction clutch from the main driving shaft, as shown in the cut. The cross-feed screws are cut with double threads giving rapid adjustment, and the bronze cross-feed nuts can be taken out when necessary to renew them without removing the saddle from the cross bar. The heads are provided with vertical, cross and angular

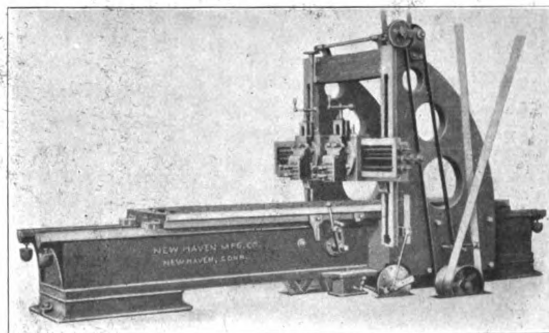


Fig. 1—The New Haven 40-in. Planer.

automatic power feeds. They are under full control of the operator from either side of the machine, and can be adjusted in any direction without disturbing the feed pawl. The table can be run back to examine the work without changing the position of the dogs, and the feed can be instantly changed from nothing to the coarsest without stopping the machine. All gears and racks are cut from the solid stock, and shafts and screws are of steel, with nuts case-hardened. The table has four wipers attached which lubricate the V's and keep them clean; the waste oil is caught in detachable cups on the bed, and can be again used in the wipers. Three sets of friction rolls are also provided running in oil pockets in the bed. When desired, cross-bars of suitable length for double heads can be furnished, so that the extra head can be run aside and the remaining head plane the full width of the machine. Heads with