



FRIDAY, FEB. 16, 1894

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Table listing various articles and their page numbers, including 'First Locomotive in Maine, 1836', 'Railroad Bridge Over the Kennebec River at Augusta, Maine, 1833', 'Hall Automatic Block Signals on the Lehigh Valley Railroad', etc.

Contributions.

Tests of Hyatt Roller Bearings.

NEWARK, N. J., Feb. 12, 1894. TO THE EDITOR OF THE RAILROAD GAZETTE: The following tests, obtained from the apparatus described in the article on the Hyatt roller bearing on Feb. 2 are sent in correction of those published. Three Pennsylvania Railroad bearings were first tested, after they had run for several weeks; and then three Hyatt roller bearings were substituted and subjected to the same tests. The 297 lbs. at the start of the Pennsylvania Railroad bearings was obtained after the bearings had stood at rest for seven minutes. WALLACE M. HILL.

Table with 5 columns: P. R. R., Diam. of pulley, Rev. per min., Press. in tons, Force in lbs. It shows test results for three Pennsylvania Railroad bearings and three Hyatt roller bearings.

Carelessness in Counterbalancing Locomotives.

TO THE EDITOR OF THE RAILROAD GAZETTE: It seems to me that a word is needed on the subject of locomotive counterbalancing. It has been my experience that defects or variations in balancing driving wheels occur oftener through carelessness than from the rules in force at the different shops. I have found in numerous cases where the spokes and counterbalancing space were cored that no lead whatever was used, and the plates scarcely balanced the weight of crank pins and crank pin hubs, to say nothing of other revolving and reciprocating parts. In a few other cases I have found that the balancing weight used was the same in main and back wheels in engines with four driving wheels. I have also found in coring for space for counterbalancing that the foundry often does very poor work, so that sufficient space would not be left in one center when filled with lead to properly counterbalance the weights, while in the opposite wheel the space could not all be utilized. It would seem that few, if any, of the locomotive builders pay proper attention to counterbalancing. When the counterbalancing is cast solid in centers, they are very liable to weigh largely under or over the proper amount. DRIVERS.

Erie Bondholders' Interests.

NEW YORK, Feb. 13, 1894. TO THE EDITOR OF THE RAILROAD GAZETTE: In your article on the Erie reorganization in the issue of Feb. 9 you omitted to state that the stockholders propose to keep alive the old mortgage of \$3 million after the bonds have been exchanged for the new five per cents. In some future reorganization of this company (which, in the writer's opinion, will surely come) the power is given to the stockholders as owners of a majority of the consolidated six per cents, to foreclose that mortgage and wipe out entirely the proposed new 70 million of five per cents. There is only one way to deal with this matter, and that is for the bondholders to foreclose, instead of waiting for the stockholders to do so when the next default occurs. The holders of the consolidated six per cents, by exchanging their bonds or the new five per cents, throw themselves into the stockholders' hands, to do with them, at some future time, as they may see fit. F.

[Our correspondent has been misled. Old seconds when exchanged for new bonds, on the plan being declared operative, will be stamped "held for account of new bonds"; and when all are exchanged this old mortgage will be satisfied of record or else deposited with the trustee as additional security for the new

mortgage. Stockholders will not own the defunct bonds and cannot foreclose as our correspondent fears.—EDITOR RAILROAD GAZETTE.]

The Meneely Tubular Bearing.

WEST TROY, Feb. 7, 1894.

TO THE EDITOR OF THE RAILROAD GAZETTE: In the article describing the Hyatt roller bearing, published in your issue of 2nd inst., you unintentionally do injustice to the Meneely tubular bearing by the opening statement that "all of the various roller bearing devices have so far met a common fate."

The eight years of uninterrupted study and practical experiments which we have devoted to the problem of diminishing journal friction has brought forth the fact that the substitution of rolling for sliding friction on the journals of railroad cars not only can be, but has been successfully accomplished—a result rendered possible, in our judgment, by the comparatively recent production of heavy weldless steel tubing. A device which, as compared with the fixed brass bearing, eliminates over 90 per cent. of initial frictional resistance; which, under a 50,000-lbs. passenger car, has run over three years with a record of 125,000 miles without having caused any measurable wear upon itself or the journal, and which is still running; which has operated a train of four passenger cars, weight 204,000 lbs., for the last 18 months, making 70,000 miles without the slightest wear, and which, by careful oiling test, enables the train to be run with 25 per cent. less fuel; which has operated many electric motor cars for more than two years, and is to-day under 90 cars of the dividend-paying electric roads of Troy and Albany—on both of which it has been adopted as the standard journal bearing—such a device, we think, is day by day approaching the plane of a mechanical necessity rather than the abyss wherein all discredited devices are sharing a common fate.

MENEELY BEARING CO., Geo. R. Meneely, President.

Paternal's Block Signal Apparatus.

RAILWAY, N. J., Feb. 7, 1894.

TO THE EDITOR OF THE RAILROAD GAZETTE: As inquiries are numerous as to the comparative merits of the Sykes block system with my improvements, manufactured by the Johnson Railroad Signal Company, and that made by the Union Switch & Signal Company, it may be well for you to lay before your readers what I have to say on this subject.

Co-operation is one of the essential features of the Sykes system. I claim that this is carried out to perfection in the latest instrument manufactured by the Johnson Company, and in service on the New York, New Haven & Hartford. It is accomplished by a twice normally broken circuit, and an arrangement in the instrument by which the operators must act in simultaneous unison with each other in sending and receiving a release. The advantages secured by this arrangement are: 1. Open line wires can be used with absolute safety, only three of which are required. 2. Any foreign current is detected with certainty. 3. A cross can result in nothing worse than a failure to release.

In the Union block system, co-operation is secured by the use of two circuits, requiring the action of both operators to secure a release, but not in simultaneous unison with each other. This arrangement is open to the objection that insulated line wires must be used (four are required) and maintained in perfect condition to avoid serious results. Under the most careful maintenance unless renewed every few years the insulation becomes impaired. Apart from additional cost, defects in insulation make the following disastrous results possible: 1. A foreign current would release without detection, because operators act independent of each other. 2. Under certain conditions a cross would effect a release with a train in section.

In my system the batteries are divided and so arranged that a failure affects only the particular circuits which they control. In the Union Sykes system the batteries are so arranged that should a failure occur it affects the whole of the circuits; a release can neither be given nor received in or from either direction. My system is carried out on the true principle of block working—the affirmative. This cannot be said of the Union Switch & Signal Co.'s Sykes. T. H. PATERNALL.

Rate Cutting as Seen by Daylight.

TO THE EDITOR OF THE RAILROAD GAZETTE: Of course traffic and other railroad men have known about the rate cutting which has always played a prominent part in railroad affairs, but outside observers have found it not easy to measure the extent of the evil. One or two recent events have, however, thrown some light on the subject, and shown it up in a way that may warrant a remark or two in your columns.

A press dispatch from Buffalo tells of a case which was brought out by a lawsuit there last week. The Jacob Dold Packing Company, of that city, hired a man named Parks to get rebates for it, his ostensible occupation being "transportation agent." He testified that he succeeded in obtaining rebates or commissions of \$4 for each single deck and \$6 for a double deck car of hogs from Kansas City to Buffalo via the Toledo, St. Louis & Kansas City; and the New York Central paid 3 cents per 100 lbs. on carload lots of provisions from Buffalo to the seaboard. The packing company discharged Parks, and he then sued for his salary; so the facts came out. The

judge held that a contract to get unlawful rebates was illegal, and that the clerk could not recover. The New York Central rebate probably had to do with intra-state traffic, and was therefore not a violation of any specific law (though it was, of course, contrary to public policy, and therefore wrong), but the judge seems to have lumped the two cases together in his decision as to illegality.

Another case which has become well known is that of the Lake Shore road. President Newell is reported to have said that his road always cut rates when its competitors did—a policy well known, but not always so plainly avowed. Some prominent roads in the hands of receivers have announced very low open rates for the reason that the receiver was afraid the courts would not approve the payment of such large amounts of rebates as were accumulating.

It is not my intention to bring forward in this brief note any patent plan for preventing rate cutting. I may say that I do not agree with some of my sanguine friends as to the extreme hopes which they seem to cherish about the maintenance of rates, if, for example, the anti-pooling clause of the federal law were repealed. I am in decided opposition to that part of that law, for reasons known generally among railroad men, but I do not shut my eyes to the other fact that rate cutting is partly due to commercial causes, to the decline in prices of staple products, to dullness of trade here and abroad, to the increasing number of gateways by which any particular territory can be entered and its agreements violated without technical guilt, and lastly by the desperate attempts to keep up round-about routes as against direct lines. Under these conditions, with no prospect of a modification of the harsh interstate law, and with no confidence to be placed in managers' words of honor, I must confess that I am a pessimist on the subject of values for railroads' bonds and stocks, except the very best; nor am I sure that I know really which the best are.

The point which I started out to make is therefore this: If things are really worse than they seem on the surface (which I believe to be the fact); if reports of gross earnings are deceptive and misleading; if roads are kept from insolvency only by borrowing money to make up deficiencies which should be met from operating revenue; if, in short, the situation is really dangerous to investors and railroad men alike, then it is time that influential men should make a clear statement. We cannot expect a remedy until people understand the desperate nature of the case; and who is to tell them? Must things go on until another fifth of our railroad mileage goes into the hands of receivers? I am lifting my humble voice and crying in the wilderness in the hope of seeing a change of heart on the part of leading railroad men; but I am more likely to suffer the fate of John the Baptist. But I hold that the railroad situation is dangerous to all interests concerned. If I am right in this opinion, we should have heroic remedies. Who will confess the truth, startle the community by telling that truth, and thus pave the way for a genuine reformation? A PROPHET OF EVIL.

The Association of Air-Brake Men.

TO THE EDITOR OF THE RAILROAD GAZETTE: The Association of Railway Air-Brake Men is new, and wishes the recognition and support of the superior railroad officers, and there appears no better way of obtaining the same than through your paper. The Association was organized at Pittsburgh last June with a charter membership of 16. It now has 62 members. The first annual meeting will be held in Columbus, O., April 10. The Board of Trade rooms have been secured for the convention, and reasonable rates at the several hotels have been obtained for the visiting members.

All of the older and larger mechanical organizations deal with air-brake subjects in their conventions, but the attention to details, which makes up a perfect air-brake service, is still lacking. Article II, Section I, of the constitution says: "The object of this Association shall be to adopt a uniform method of instruction and maintenance in the use of air-brakes on the various railroads, which will enable them to be worked to their maximum efficiency." While the older organizations have drafted rules governing instructions, etc., they have done comparatively nothing toward the maintenance of brakes, especially on freight cars.

There are two classes of members, active and associate, and any person having a thorough practical knowledge of the operations and construction of air-brakes, and in the employ of a railroad corporation, may become an active member. Persons otherwise employed may become associate members, and be entitled to all of the privileges of an active member, except holding office. The range of eligibility is very wide. The Traveling Engineers admit an air-brake expert, but many are denied admission to that body who can belong to the association of Air-Brake Men.

The air-brake business is an art in itself, and cannot receive the attention due it by combining it with some other business, especially if it has to be the tail of the dog. The air-brake man is as much devoted to the interests of air brakes as other men to their business, and is not content to sit for a day or two in a convention and listen to discussions of topics having little or no interest for him, awaiting the time for the introduction of air brake subjects, and then, possibly, be disappointed at the few hours given to the meager discussion of his pet topic. The air-brake service is one of the most im-