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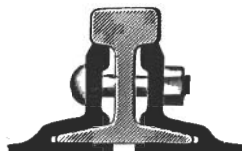
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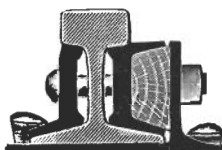
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# PAYING THE PIPER

The lesson that lies imbedded in a recent strike in a certain railroad's shops is full of the most vital significance to railroad workmen throughout the country. It is the old story of a necessary retrenchment on the part of the road being misunderstood by the men, and of the disastrous strike which followed. A. G. Williams, author of this article, who is himself a railroad man and an accomplished writer on industrial subjects, has written this interesting analysis of the situation for the July issue of

## THE MEDIATOR

*A Magazine of Industrial Economy*

"Piece Work vs. Peace Work," by J. K. Turner, points out the vital errors which have hitherto almost always accompanied the effort to install piece work systems in shops. He contends that without first insuring harmony in the organization from top to bottom, the system is sure to meet with failure.

"The Despotism of Labor Leaders," by S. T. Holland, tells of the vicious tactics employed by the organizers of certain crafts, and proves the labor leaders of certain types are labor's greatest enemies.

"Be Fair," by Elbert H. Gary, president of the United States Steel Corporation, is the address of this great captain of industry before a recent meeting of steel and iron manufacturers in New York. It contains that vital desire to treat employes fairly, which is daily becoming more and more marked in industrial leaders of this country.

"A Blessing in Disguise," is President F. A. Delano's view of the recent Interstate Commerce Commission's decision on the rate question. It will hold the attention of every railroad man in the country. It is sane, sensible and brightly optimistic.

"Let Us Talk Politics," by Judge Albert H. Weed, tells in plain, unvarnished language precisely what is the trouble with politics in America. It is a strong, clarion call to voters to cease exalting party above men. No man can read this article and take it to heart without voting rightly the next time he goes to the polls.

"The End of the Road," by C. B. Bartlett, pictures vividly some of the ragged-edgers of life, who have lost their grip on the wheel of progress, and have fallen by the wayside. He shows one way out of their difficulty.

"Fuel Economy," by A. G. Williams, and "The Higher Efficiency of the Minor Official," by J. B. Orbison, are technical articles by these two men of authority, and will interest railroad men everywhere.

As usual, the Forum contains matter of importance from workmen from one end of the country to the other. Send for free sample copy of THE MEDIATOR. Subscription price: one dollar per year. Agents wanted.

## THE MEDIATOR

ROCKEFELLER BUILDING

CLEVELAND, OHIO



## Use and Care of Track and Warehouse Scales.

J. W. DUGAN, Chief of Weighing Bureau.

Weight is the basis of freight revenue. Light weight means loss of revenue for the railroad. Over weight causes claims for overcharges and dissatisfied patrons.

When shipments are under weighed, we never hear from them, but when shipments are over weighed, we receive claims for overcharge, and complaints from patrons and sometimes lose business as a result of the overcharge. This entails a large volume of correspondence, besides overcharges must be refunded, all of which causes more or less annoyance to ourselves and our patrons.

There is more attention being given to weights and measures by State legislators and State officials, also by the Interstate Commerce Commission at the present time than has ever been before. Magazine writers are also agitating the question in our leading magazines. The different States are appointing commissions and offices to investigate short weights and measures. Railroad officials are realizing more each day the importance of producing absolutely correct weights as a basis for freight charges.

In order to do this, large sums of money are being expended to equip their lines with heavy modern scales. Automatic devices are being installed to facilitate the weighing of freight, both carload as well as less than carload.

In order to determine the correct weights, scales have been placed at all our large terminals, coal mines, large industries and freight houses. This railroad has adopted as its standard track scale a fifty-foot four-section heavy pattern one hundred and fifty-ton scale, installed on steel substructure in a concrete pit. The heavy capacity equipment now in service and in course of construction requires a heavy capacity scale.

Installing or building a track scale is a very particular piece of workmanship. The concrete foundation must be solid and all stands or pedestals must be perfectly level so that the levers and bearings work properly.

When a scale is turned out of the shop each part is sealed perfectly. A scale multiplies from the main or side lever through the end extension and

middle extension levers from both ends to the fifth lever that connects with the beam. When any of the pivots or bearings are shifted a small fraction of an inch, it destroys the multiple of the scale and correct results will not be reflected in the beam. Therefore, it is necessary that all parts be level so that each bearing get its full portion of the load, to get the desired results.

Our scales are equipped with a hand type registering beam. The type are placed on the under side of the beam and in a sliding poise. In connection with this beam a triplicate scale ticket is used. This ticket is made in four parts. The first ticket is retained as the station record; the second ticket is furnished to the consignor if desired; the first two tickets are made with carbon backs in order to get the impression. The third ticket is prepared with a mucilage back and this ticket is pasted on the waybill; the fourth is a card back that is retained by the weighmaster, which shows the full record of the waybill and car weighed. When a car is placed on the scales, the beam is balanced and the ticket is then inserted in the sliding poise, the lever is then pulled which registers the weight reflected on the beam. If the scale is in good working order and the car is properly placed on the scales, the weight recorded on the ticket will be the correct weight of the load on the scale. The light or tare weight of the car is also stamped on the ticket. This makes it easy to get the net weight of the shipment. This device has reduced the errors from track scale weights to a large extent. The weighmaster is not required to read the figures on the beam or transcribe them to the waybill and make book record. The full record is recorded on the ticket and when the consignor requests the weights he is

furnished a ticket showing the weights as printed by the beam on the original ticket.

The care of scales is a matter that should be given serious consideration by all who have to do with securing weights. There are a number of causes that prevent scales from giving correct weights. Some of which I consider most important I will mention, *i. e.*, the platform must be kept clean. It must be free from binding at the sides and ends. The bridle rods that hold the rails in position must not bind on the platform. The live or scale rails must be watched closely that they do not slip and bind on end sill or connecting rail. Dirt and dust should not be allowed to accumulate around the pivots and bearings; they must be clean and work freely. Pivots are made from the very best steel that can be secured, and when placed in position rest on a knife edge. When dust and dirt are permitted to remain around them, water will stand on bearings and cause the pivot to rust and break. The scale pit must be properly drained and kept clean. The beam should be in perfect balance before beginning to weigh. When the scale beam is not in balance bad results will be reflected. Care should be given to see that the beam is kept clean and free from rust, also to see that all the screws and parts of the poise are in place. The poise on a beam is sealed to the fraction of an ounce and must be kept in perfect condition to get correct weights.

The scale track or live rail should not be used for switching purposes. It should be locked except when it is in actual use for weighing. Heavy jars, such as pulling cars over the scales at a rapid rate or running a heavy engine over the scales, will very often throw them out of adjustment or break a pivot