



## OLD TIMES.

*By Furry.*

The article by Mr. McNair in February Frisco-Man got me in a reminiscent way and I must get it out of my system. Mr. McNair spoke of the great physical changes in the Central Division. There have been many changes even in name. If my memory is correct this division has been known under name of Arkansas-Texas-Eastern & Ft. Smith, as well as Central. There are great changes in personnel. I can think of but two agents who were with the Division when it first built through to Texas, namely McNair and Schaberg. The changes in operating conditions are also many. In the Fall of 1887 when the road was first opened to Paris, there was no U. S. mail service south of Jenson, and no post offices at the newly established towns along the route. The only way for the boys along that line to carry on any correspondence was thru P. O. at Jenson. Every day we would get a large quantity of U. S. mail for the boys down the line and send it to them by baggage car on train No. 1 that night.

There was but one passenger train each way daily between Ft. Smith and Paris that fall and winter. No semaphores or train order signals were in use. Every telegraph station depended upon red flags and lanterns to stop trains for orders. We had a hole in the platform in which to stick the red flag and a nail just outside of window on which to hang red lantern. We didn't know what a clearance card was. If our red flag was out for No. 2 and No. 1 came along they inquired, "who are your orders for?" Our reply, "orders for No. 2, nothing for you," and away they would go, everybody satisfied. At that time the superintendent, two clerks, and three dispatchers was the size of

the Division headquarters crew at Ft. Smith.

The first trick dispatcher was also chief dispatcher and division operator in charge of telegraphers. W. W. Ashald, deceased, was first trick, H. F. Clark, whose first service with Frisco was as superintendent at Sapulpa, was second trick and D. P. Wing, deceased, was third trick.

An official list of station agents in my possession dated February 1, 1888, shows J. A. Mantor, who was Superintendent of Central Division from about 1892 to 1897, as agent at Seventh St. Station, St. Louis; O. M. Conley, General Agent, Chicago, as agent Galena, Kans.; Chas. Hall, General Western Agent, San Francisco, as agent Ft. Smith; W. H. Bevans, our present Asst. Superintendent, as agent Piedmont, Kans., and C. H. Claiborne, Superintendent River & Cape Division, as agent South Haven, Kans. I came to Van Buren in July, 1888, and some time after that (not over a year or two) our present superintendent, C. H. Baltzell, came to Van Buren from Argenta, and opened the St. L. I. M. & S. Dispatcher's office at this place. He was envied by all the young fellows as he was the possessor of one of the old time high wheel bicycles with a small wheel trailing behind. The only trouble with the small wheel was that, like some people, it wouldn't always stay where it belonged, and when it left its place there was trouble for the rider. I will give him the benefit of the assertion however, that generally he kept the small wheel where it belonged. I believe once the contraption did take him into a store via the show window, but we will say nothing about that. This will use enough of your space for this time, and with this bit of reminiscence off my mind I'll tackle the problems of today.

## HISTORY OF THE INJECTOR.

*Machinist.*

To H. Jacques Giffard, an eminent French scientist, mathematician, and engineer, belongs the honor of having invented the simplest apparatus for feeding boilers that has ever been devised.

Giffard had spent much time on developing a light steam motor for propelling balloons. It is therefore not strange that he should also attempt to devise a compact and convenient substitute of the steam pumps then in use. In 1858 he patented his automatic injector.

Upon purely theoretical grounds the method by which he proposed to force a continuous stream of water into the boiler appeared feasible, and if practicable, would possess many advantages over the intermittent systems. The difficulty lay in fulfilling the peculiar conditions required for the condensation of the steam, and the subsequent reduction of the velocity of the moving mass.

Giffard carefully considered the question and made a working drawing. From these drawings a model was made. Considerable difficulty was found in forming the peculiarly shaped tubes, but in these lay the element of success; and the first

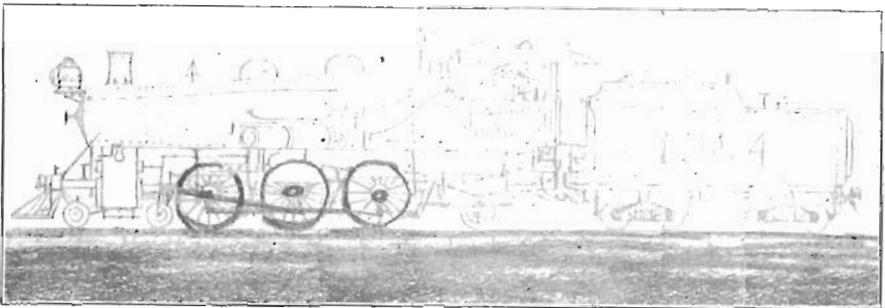
injector constructed fulfilled the expectations of its inventor.

In but few inventions have the principles been so thoroughly worked out by the original inventor. In his patent specifications, Giffard describes many improvements which have since been made.

The injector was introduced into the United States by Wm. Sellers & Co., who commenced its manufacture at their works in Philadelphia in 1860. Of the locomotive builders M. Baldwin was the first to use the injector, applying in September 1860, a number eight injector to an engine for the Clarksville & Louisville R. R. The following month the Detroit & Milwaukee Railroad put an injector in use on one of their locomotives. The Pennsylvania and the Philadelphia & Reading followed in the latter part of the same year.

It is interesting to note that owing to the improvements made in American injectors, they are now extensively used in France; and, have been adopted as a standard on several of the Government railways in that country, the home of its inventor.

(To be continued.)



The above is a drawing by Ira Yeargain, 13 year old boy of Sleeper, Mo. The drawing is an excellent one, but as it was made with pencil, reproduction was difficult.

## STUDIES IN TRAFFIC.

*Geo. L. Edwards.*

### Freight Rates—Filing Tariffs.

Accuracy in determining the rates applicable to all shipments from and to his station is perhaps the greatest problem of the local agent.

No one denies the difficulties he encounters in that respect and he readily admits the filing case which contains two, perhaps five hundred tariffs, showing thousands of rates from and to as many different places and applying in different ways upon every commodity from mouse traps to locomotives is the most intricate and troublesome proposition with which he has to deal.

Ability to read tariffs readily and accurately can be acquired only by practice. The different rate structures are published in so many different ways that no rule or set of rules can be laid down which will apply to all tariffs. There are however, some fundamental principles of tariff construction with which all tariffs must comply, and if they are understood, a little time each day given to systematic study and persistent practice will enable anyone to master the tariff case within a short time.

The next three articles appearing in "traffic studies" will take up the subject of freight rates, their definition and application, tariff reading and the subject of routing freight which is inseparably related to that of rates. While these articles will necessarily be elemental, we will discuss such features of rate making and tariff construction as will contribute to an intelligent understanding of the tariffs. However, the fact that practice is the best way to become familiar with a tariff should not be lost sight of.

The first step in rate work is to see that the tariff case is in first class shape. Stamp, record and file all tariffs the day they are received, marking the issues cancelled thereby with the date of their expiration

and removing them promptly after that date. Grievous errors are apt to occur by permitting expired tariffs to remain in the tariff case.

Expired tariffs and circulars which have been removed from the tariff case should be preserved and disposed of in compliance with Mr. Reilly's letter dated March 2, 1917.

Instructions for preparing the tariff case and filing tariffs are found on page 4 of circular 132-U which is on file at each station.

That circular may properly be designated the key to the tariff case.

It contains not only instructions for filing and posting tariffs, but also a list of all tariffs and circulars published and participated in by this company and an index showing just what issues should be on file at each station.

Time spent in perusing that circular until it is thoroughly understood, will be time well spent.

The requirements of section 6 as to posting and filing tariffs have been modified by orders of the commission dated June 2, 1908 and October 12, 1915, and in such a way as to greatly reduce the number of tariffs which the carriers would otherwise be required to file at each station.

Section 6 provides that two copies of all tariffs to which the carrier is a party, be filed at each station where freight is received.

The modifying order requires only one copy of tariffs showing outbound rates applying from such stations and tariffs applying at such stations such as demurrage, absorptions and switching tariffs.

It will readily be seen that this not only reduces the work at each station by eliminating a large number of unnecessary tariffs but also greatly reduces the company's tariff expense.

The order of October 12, 1915, also requires the agent or other representative at each station upon receipt of a tariff or supplement to a tariff, to immediately write or stamp upon the title-page the date upon which it was received and to keep a record by I. C. C. numbers and supplement numbers showing the date received and date posted.

Blanks for recording the receipt of tariffs have been furnished all stations and the importance of filing tariffs strictly in compliance with the commission's order is made quite plain by the following extract from that order:

## **COLLECTION OF PROPER FREIGHT CHARGES.**

*C. Goehausen.*

TO ERR IS HUMAN, BUT WE SHOULD PROFIT BY OUR ERRORS; and with that idea in mind, call attention to the way we are doing things that results in extra work and sometimes loss, and the way we fail to do other things with the same result.

It, therefore, would seem reasonable that if our attention were called to the errors we make, and we acknowledge the same, that an improvement may be looked for.

The collection of the proper charges on every shipment is of the greatest importance, but from the number of claims filed, it is apparent that the matter is handled rather lightly. The billing agent assumes that the destination agent will revise the waybill and collect the proper charges, while the destination agent concludes that the shipment is correctly billed, and therefore, does not revise the waybill, and delivers the shipment either under or overcharged.

It may not be generally known that the Overcharge Claim Department receives every year about sixty thousand new claims, and it requires a force of nearly fifty clerks to investigate and dispose of the same.

Under the authority conferred upon the Commission by section 6 of the act, to modify its requirements as to publishing, posting, and filing of tariffs, the Commission issues the following order in connection with which it must be understood that each carrier has the option of availing itself of this modification of the requirements of section 6 of the act or of complying literally with the terms of the act. If such modification is accepted by a carrier it must be understood that misuse of the privileges therein extended will result in cancellation of the privileges as to that carrier.

About eighteen thousand of this number are claims filed by shippers or consignees:

Twenty-two thousand by agents for relief of charges on freight short, or money paid out account switching, drayage, concentration, etc., and for uncollected undercharges:

The other twenty thousand are received from connecting lines in which the Frisco is jointly interested.

About three-fourths of the number of claims received from shippers or consignees are settled by paying back the amount collected in excess of the proper charges.

While a great number of claims are filed for overcharge in weight, by far the greater number are for overcharge in rate and classification, and the investigator handling the claim, often wonders if agents ever revise the waybills before they make collection of the charges.

It is true, tariffs are often changed, but if agents would keep their tariffs amended and carefully revise the waybills, there would be a reduction in the number of overcharge claims.

If agents would consider that competition is very keen, and that an overcharge

means a dissatisfied shipper, or perhaps loss of business, they would be more careful in collecting the proper charges.

Shippers are inclined to look upon a loss and damage claim as a necessary evil, but when we collect more money for the transportation of their shipments than the tariff prescribes, we are doing something that "leaves a bad taste in their mouth," even if the amount over collected is promptly refunded.

A railroad is like a merchant; it has something to sell. The careful merchant endeavors from morning till night to satisfy his customers in every way, and thereby retain their good will and increase the number of same. The railroad sells transportation, and the Operating Department works day and night for the speedy movement of the shipments, and when an agent overcharges a shipment, the shipper becomes dissatisfied, and the good service rendered the shipment by the Operating Department is lost. It, therefore, should appeal to all agents to give the matter of collecting proper charges the best attention.

A source of dissatisfaction to shippers is when a shipment is delivered undercharged. An undercharge is hard to collect, and as the Interstate Commerce Commission and the State Commissions require the railroad to collect the proper charges on every shipment, it is often necessary to threaten suit, and in some cases suit must actually be brought to secure the undercharge, which means a dissatisfied patron. In a good many cases the undercharge cannot be collected, for the reason that consignee is out of business, or has moved away and his whereabouts unknown. In other cases there is a dispute between shipper and consignee—one says the other should pay, while the railroad "holds the bag." The losses which the railroad has to assume in cases of this kind have become so great that agents may look for being personally held responsible for the undercharge.

To overcome all these obstacles agents should revise the waybills before collec-

tion of the charges. Agents should remember that a lawfully established rate cannot be deviated from, and that rate, in the eyes of the law, is the same as if it had been established by a special Act of Congress. Shippers and consignees will recognize this fact, and will have no excuse for failure to pay the proper charges at time of delivery of goods.

All waybills when received in the General Office are carefully revised and all mistakes corrected. If shipment is overcharged, agent is instructed to make refund, provided the original freight bill is produced so the refund may be indorsed thereon.

If a freight bill has been forwarded to the shipper, he is notified of the overcharge, so he can file claim or return the freight bill to the consignee that the refund may be made at destination. By following this method, the number of overcharge claims have been greatly reduced, and such action is appreciated by the shipping public.

(To be continued.)



### STEAM HEAT DRIPS.

Among the improvements which are embodied in the Chicago Car Heating Co's. Vapor System of heating passenger train cars is the construction of the cut-out valve which permits the shutting off entirely of any part of the heating system without danger of freezing the apparatus.

With some of the older systems of heating it was found advisable by the men operating them to always leave the steam turned on at least partly in order to keep the drip hot and prevent this freezing.

With the Vapor System steam is always on the drip or outlet of the system whether the valves are open or closed.

Write for instruction book which explains this. The manufacturers will be glad to send you a copy. Their address is Railway Exchange, Chicago.—*Adv.*