

you have **not** changed the water level reading of the boiler.

Now, just a word, in ending, relative to the water glass. It is a necessary evil and, of course, we must reason with it. At best it is a dangerous thing to depend upon. The gauge cock is the one thing which will not deceive you as to the height of the water above the crown sheet. In the majority of cases the water glass is always specified to show a certain height of water in its column with one gauge of water. Now, if we approach

some degree of accuracy in the location of gauge cocks the water glass can easily be made to conform to the gauge cock. But, in ending, let me sound one further word of caution. If the location of gauge cock is in error your reading on the water glass is also incorrect. But since it is an easy matter to have them agree, then we must make the beginning an absolute; namely, to make the location of gauge cocks fool proof, easy to correct and at the same time lessen the degree of cost and trouble in correcting them.

Economical Operation of Locomotive Stokers

Conservation Circular No. 20.

THE rapidly increasing number of locomotive stokers now in service, with frequent absence of economical results as measured by the fuel consumed per unit of service rendered, warrants more specific attention being given to the maintenance and operation of this device. Unfortunately many men in charge of locomotive operation look upon excessive consumption of fuel by the stoker as an inevitable condition attendant upon its use. This fallacy is largely a state of mind, and one that should be corrected as quickly as possible.

Recent tests made on a road in the central West demonstrated the ability of two locomotive crews to operate a heavy stoker-fired locomotive pulling a heavy tonnage freight train over two freight divisions with one tank of coal of medium quality and without cleaning the fire en route. Unhampered by the physical limitations that attach to the work of hand firing, enginemen frequently fail to operate the stoker-fired locomotive at the most economical point of cut-off, thereby failing to utilize to the fullest extent the available power in the expansive force of the steam consumed. The heavy exhaust thus created results in extraordinary spark losses (ranging as high as 40 per cent of the fuel consumed) by carrying the finer particles of coal discharged into the firebox by the

stoker at a point considerably higher than the level of the fire, out over the arch through the flues and stack to the atmosphere. To reduce these losses the brick arch, which is an essential adjunct to successful operation of the stoker-fired locomotive, should ordinarily be built somewhat higher than is the practice for the hand-fired locomotive and in every instance properly maintained. The matter of fuel sizes for stoker locomotives should also be investigated carefully in order that spark losses may be further reduced.

Consistent with careful operation on the part of the enginemen, special effort should be made toward using the largest possible exhaust nozzle. Power reverse gear, when used, should be so maintained as to prevent wasteful steam distribution resulting from the so-called "creeping" of the reverse gear. To the end that the results now obtained may be improved upon, the following suggestions are submitted:

The stoker should be thoroughly overhauled at the time the locomotive is undergoing general repairs, and should be tested before the locomotive is returned to service and all defects corrected.

Stoker Maintenance at Roundhouse

Stoker repairmen should make a careful test and inspection of the stoker in the roundhouse or on the

fire-cleaning track on the arrival of the locomotive at a terminal, operate the stoker and observe its general condition, then correct all defects that develop under the test. (See instructions supplied by stoker manufacturers.)

Maintain all pipe joints and packing nuts steam tight.

Special attention should be given to the condition of the conveyor trough to prevent fuel wasting over the top. This is important, as heavy losses occur on account of fuel wasting over the top of the trough due to fuel being fed too rapidly to the conveyor, which, owing to a construction defect, is not properly protected to prevent these losses.

The shovel sheet should be maintained in the same good condition required on hand-fired locomotives.

Testing Stoker Before Starting on Trip

Before the locomotive leaves the outgoing track the stoker should be tested to insure that it is in good working condition, with all lubricating cups filled and in working order.

The fire should be built up gradually by hand firing, as a much better fire can be prepared in this way, until the pressure is within 10 or 15 pounds of the maximum, maintaining this pressure until ready to leave. Otherwise successful trips are frequently spoiled by starting the train before the fire is in proper condition to maintain the necessary steam pressure.

Operation of the Stoker

The same general principles that pertain to firebox conditions under hand firing apply to stoker operation, that is, to maintain a thin, level, bright fire and a uniform distribution of the fuel over the entire grate surface.

When starting the train, the stoker should be put into operation and such hand firing done during the trip as may be required to insure a level fire and uniform consumption of fuel on the surface of the grates. Holes in the fire or burned out corners should be taken care of by the use of the shovel instead of by speeding up the stoker.

Fuel should not be fed faster than it is being consumed, if uniform steam pressure is to be obtained. The efficiency of the stoker largely depends upon the careful attention given to the adjustments of the fuel-distributing parts to insure a uniform distribution of the fuel over the fire. The constant lubrication of the driving engine and all bearing parts is essential.

The throttle, reverse lever, and injector on stoker-fired locomotives should be handled by enginemen with the same regard for economy that is exercised in the case of hand-fired locomotives where the fireman does all the work.

Greater care should be used in shaking grates on stoker-fired engines than is employed on hand-fired engines, on account of the thinness of the fire carried, and grates should only be shaken when the locomotive is not working. On superheated locomotives a more uniform degree of superheat can be maintained when engines are stoker fired than when hand fired, on account of the door being opened less frequently.

Enginemen should observe the fuel in the tender as it is being fed to conveyor, removing any foreign material which would tend to clog or interfere with the operation of the stoker.

While locomotive is standing, the fire should be maintained with the shovel.

At the end of the trip the conveyor should be emptied before the locomotive is surrendered to the terminal forces. All firing by terminal forces should be done by hand.

With the application of additional stokers from time to time as locomotives are purchased, the importance of properly maintaining and operating the locomotive so equipped represents a vital operating problem, one deserving the serious attention of all employees who are interested in returning the character of service that competent, skilled men invariably wish to render.

E. B. FINDLOW GOES TO FORT WORTH

E. B. Findlow, for a number of years Auditor of Disbursements at St. Louis, has been appointed Auditor with headquarters at Fort Worth, according to circular of December 30 by Federal Manager J. S. Pycatt. Mr. Findlow's appointment was made effective January 1, and he succeeds C. S. Snow, resigned.



E. B. FINDLOW

Mr. Findlow's first railroad work was in 1890, when he was a commissary clerk to a railroad contractor, who had the contract for construction of the Montgomery, Tuscaloosa & Memphis Railroad, which is now a part of the M. & O. Then came successive positions as timekeeper, back rodman, front rodman, back chainman, front chainman, level rodman, and assistant to the engineer on construction.

In 1891 he sought an indoor position, and was employed by the Auditor of the Frisco as junior clerk in the Ticket Department. Succeeding years brought advancements which led from the Ticket Department to the Freight Accounting Department and later to

the Disbursements Department and finally to the Bookkeeping Department. In 1907 he was made Auditor of Disbursements, which position he held under the titles of Auditor of Disbursements and Disbursements Accountant until his most recent appointment.

On the eve of his departure the men of the Disbursements Department presented him with a leather portfolio as a token of esteem and wished him continued success as Auditor at Fort Worth.

DAVIS NEW AUDITOR OF DISBURSEMENTS

George B. Davis has been appointed Auditor of Disbursements succeeding E. B. Findlow, who has been made Auditor at Ft. Worth.

Mr. Davis comes directly from the Frisco Corporation where he had been General Accountant since July 16, 1919.

He was born in Kansas on July 25, 1886, and first entered the railroad service in the Motive Power Department of the Santa Fe at Raton, N. M., in 1905. In 1909 he went to the Accounting Department, Disbursements Office, of the same road where he held the following positions successively: Traveling Accountant, Motive Power Accountant, Secretary and Auditor, The Folsom Morris Coal Mining Co., of Lehigh, Okla., a subsidiary, and Assistant Auditor and Assistant Treasurer of the Coline Oil Co. of Ardmore, Okla., also a subsidiary of the Santa Fe.

In 1917 he entered the Operating Department of that road under F. C. Fox, General Manager, at Topeka, Kan., as office manager of Division Accounting and Transportation office.

He became identified with the United States Railroad Administration, Division of Accounting and Audit Section, on December 15, 1918, where he held the position of General Cost Accountant and Chief Clerk to Auditor.

On July 16, 1919, he accepted service with the Frisco Corporation as General Accountant, which position he held until his appointment, on January 1, as Auditor of Disbursements.

CONDUCTOR COGDELL GETS OIL SOAKED BUT PREVENTS CLAIM

"My only thought at the time was to discharge my duty faithfully and use all my efforts to save the company from heavy loss," says Conductor Fred G. Cogdell of the Northern Division, regarding his recent tussle with an oil tank in an endeavor to stop a leak.

Mr. Cogdell was conductor on train 347 from Wichita to Ellsworth on November 4, when near Medora, he noticed that one of the tanks of fuel oil was leaking. He stopped his train, investigated and found CWOX 54 leaking at the outlet valve. The valve he found unseated, which made it impossible to stop the flow of oil in that way, so he made a plug out of a fence post and with the assistance of Brakeman V. M. Brady succeeded in stopping the leak.

The leak was stopped, however, only after his clothing had been saturated with oil. The matter was brought to the attention of the officials who expressed their gratitude and who authorized a voucher to be made out in favor of Conductor Cogdell to cover the loss of his clothing.

"I endeavor at all times to protect the interests of the company and am glad to do so regardless of the circumstances," says Mr. Cogdell in response to an inquiry by Superintendent Brown of the Northern Division. In this instance Mr. Cogdell not only saved a heavy claim but made it unnecessary for a car man to be sent out to make the repair.

Mr. Cogdell's fidelity and trustworthiness entitle him to commendation of all loyal Frisco employees.

SHIPPER LIKES FRISCO SERVICE

Good service, and all that the words imply, is or should be the aim of every Frisco employe. And there is every reason to believe that the majority of the Frisco people strive to give the public the very best of service. Especially is this true of the Memphis Freight Office, if the following letter is a criterion:

DE SOTO OIL COMPANY

Cotton Seed Products
Memphis, Tennessee, 12-24-19.

Luck to each and every one of you good fellows!! If every railroad in the city would try the same courtesy evident in every dealing with you it would be a great pleasure to deal with the railroads.

Yours sincerely,

De Soto Oil Co.

The above letter speaks volumes for **Agent S. L. Oliver** and his force at **Memphis, and no doubt encourages them to greater efforts.** Mr. Oliver has been with the Frisco for twenty-eight years, and is one of the most popular agents in that city.

FRISCO CLERKS FORM OIL COMPANY

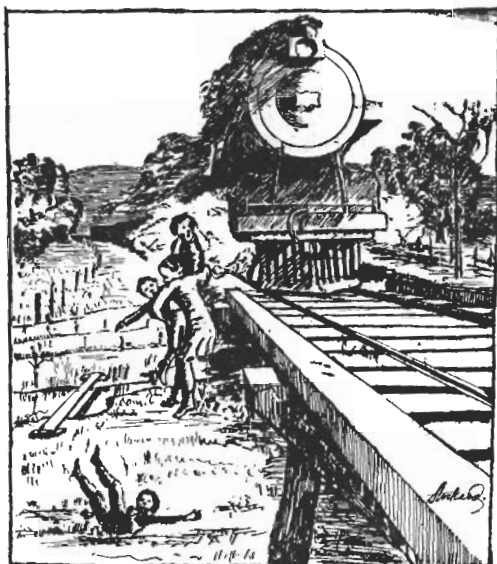
More than 250 clerks in the General Offices of the Frisco at St. Louis have organized an oil company under the trustee plan and are drilling on a 40-acre tract in Bell County, Texas. This district, it is said, has been pronounced to be a bigger field than Ranger and Desdemona combined, by eminent geologists. The clerks hope that the predictions will come true, and that the field will prove to be another Tampico.

This lease was secured early in September by Joe B. Hartman of the Freight Accounting Department, who has formed a company by dividing the lease into 500 units at \$50 a unit, thus giving each unit holder a certificate for 1/500 interest in the lease and thereby raising \$25,000 for drilling and developing the property. No salaries, commissions or promotion expense will be paid out of this capital.

Funds sufficient to permit beginning operations have already been received and drilling is to begin soon.

TOKEN OF APPRECIATION GIVEN GIRL HEROINE

As a token of appreciation for the saving of three small children from death under the wheels of a Frisco locomotive near Albion, Okla., account of which was in the January issue of The Frisco-Man, Miss Agnes Standifer, heroine, has been presented with a gold locket.



(Illustration by Claim Agent Stockard.)


Superintendent Baltzell of the Central Division, and Engineer W. A. Davis, who was running the locomotive of train No. 5 when the incident occurred, went to Albion on Christmas Eve, where they had a celebration arranged for the children, and there presented the token to Miss Standifer. On the outside of the locket was engraved "Miss Agnes Standifer," and on the inside the words "For Rescue of Three Small Children on Frisco Bridge Near Albion, 11-2-19."

Mr. Baltzell states that there were 300 people in the assembly room when the celebration and presentation was held.

OFFICIAL GUIDE DISTRIBUTION

Some laxity is reported in the handling of our Official Railway Guides. These guides are expensive and since a very large share of the information in a given issue remains unchanged for several months, they are valuable for about six months after the date of issuance. Only a limited number are ordered each month and these are sent

Form 2174-Standard



(SAMPLE)

PASSENGER TRAFFIC DEPARTMENT

CIRCULATION OF OFFICIAL RAILWAY GUIDES.

As only a limited number of these guides are subscribed for, and in order to allow their use by as many persons as possible, care should be taken to observe the following:

The officer or agent whose name heads the list given below is expected to enter in the first column the date he receives the guide. When the succeeding number reaches him the old copy should be promptly sent to the next address on the list, after making entry of date in second column.

The plan should be followed by each succeeding officer or agent until all on the list have been supplied. Warn this arrangement each person will know from whom and what issue of guide to expect every month.

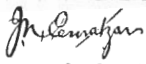
The new guides are sent out from this office on or before the 10th of each month, and if not received promptly the officer or agent from whom it should come should be asked for it.

In order to make the guide perform the circuit, it is very important that it should be well taken care of. They are arranged for distribution on the following basis: The stations selling coupon tickets (classed according to rates) are first supplied, and then the other stations (classed according to rates) are next supplied. In making reference to time tables given in the guide, allowance must be made for the fact that the guide will be one month late when received by the second person on the list, two months late when received by the third, and so on; but by the study and use of them agents can keep themselves generally well informed as to the opening of new roads, the changes in old ones, and acquire a knowledge of routes, through cars and connections, which change but rarely, and will find this knowledge of great assistance in enabling them to talk intelligently to the public, and a great aid in selling through tickets.

ALL GUIDES MUST BE FORWARDED PROMPTLY BY TRAIN MAIL.

The outside of package containing The Official Guide must in all cases be plainly addressed and show in upper left hand corner from whom it is forwarded.

THIS GUIDE IS FOR THE USE OF	RECEIVED	FORWARDED
Federal Manager		
Ticket Agent, Blackwell, Okla.		
Ticket Agent, Breckenridge, Okla.		



General Manager Agent

to those whose duties demand such information as contained therein. The guides, as soon as new ones are received, are to be forwarded to some other point where they can be used even though they be 30, 60 or 90 days old. On the first inside page is a form, a sample of which is given in accompanying illustration, on which are the names of those to whom that particular guide is to be sent and in the order they are to receive it. As per the illustration the Federal Man-