

### The Frisco Exchange at Springfield.

There are 150 Frisco stations switched through our main private branch telephone exchange at Springfield, Mo., in addition to the long distance and Bell Telephone Company's stations.

The table shown on the right in the accompanying reproduction is equipped with the signaling apparatus for the long distance or message circuits. All signaling on the message circuits is done by the "monitor" operators at Springfield. The operators of this signaling is as follows:

The station wishing to call "goes in" on the line and speaks the name of his station and the station he wishes to communicate with, as for instance "Fort Scott-Paola."

A hand generator is provided at each station to call the "monitor" operator

at night or other times when she is not on the line.

The telephone switch board is a two-position board of the very latest type and is equipped with the latest appliances for signaling and switching. It is connected by "trunks" with a smaller board in the New Shops, and will be similarly connected with a board in the new office building.

Miss Whitaker, chief operator, and Miss Ogden are shown on the left at the telephone switchboard; Miss Melton and Miss Hoffman are at the signaling table on the right. In the center of the picture is Mr. Stowe, maintainer, and standing in front of the switchboard on the left is J. H. Brennan, assistant superintendent of telegraph.

## Electric Staff System.

The Electric Train Staff System of today is a gradual development from a simple principle for the operation of railroads which was recognized in England as early as 1840; namely, that to safely pass over a given section of single track, every train should have in its possession a tangible right to do so in the form of some specific article of which there is only one obtainable. The first train staff was a metal bar about



two feet long, which had cast or engraved on it the name of the two stations between which it alone gave authority for any train to proceed. Unless trains moved alternately in opposite directions the staff had to be returned over the section by a special engine or in some cases by road.

The accompanying photographs illustrates the staff instrument located in the Springfield passenger station. A similar instrument is located in the Nichols Depot. These instruments are electrically connected, and it is impossible to operate the one without the

knowledge and co-operation of the operator in charge of the other.

The operation of these instruments is by means of a bell code. Only one staff can be taken from the instruments at a time, and another staff can not be withdrawn from either instrument until the staff previously removed has been replaced in the same instrument or in the one at the other end of the block. Operators are not permitted to deliver a staff from one train to another until it has passed through the instrument, and under no circumstances are operators permitted to place a staff in the instrument, or report a train to the other end as having passed out of the block until they have positively seen the markers or are assured the train is into clear.

For delivery to enginemen the staff is inserted into a rubber pouch about ten inches long, and no train or engine is permitted to run in any direction between Springfield and Nichols unless engineman has staff in his possession, which he will take from the operator or conductor. The staff must be retained by the engineman while any part of his train is in the block and is delivered to the operator when passing staff office at the other end of the block.

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## He Had Two Coats.

L. S. Baney, station baggage master at Joplin, Mo., desires to relate through the columns of THE FRISCO-MAN the following incident at his room lately, which he believes too good to keep from the boys:

A young fellow, evidently from the "Tall Uncut," came in to check a telescope to Bentonville, Ark., to which was strapped a coat.

"You will have to take your coat off," I said, and when I returned and looked up, there he stood with the coat he had been wearing hanging on his arm.

## Finding His Way.

The accompanying sketch represents our new division passenger agent at Joplin, Mo., Frank R. Newman, pondering over the puzzle map of the Joplin-



Pittsburg District, with relation to passenger train service into and out of Joplin.

## 100 Tons an Hour.

On the front page of the magazine is reproduced photograph of our South Springfield Coaling Plant.

This plant is of the balanced bucket type, and has a storage capacity of 250 tons of coal. The arrangement is such that it will hoist 100 tons of coal an hour.

The plant is electrically operated throughout, current being supplied from the South Springfield Shop plant, and coal can be supplied to two engines at the same time from tracks located on either side of the plant.

There are only two coaling plants electrically operated on the Frisco, one

at Fort Scott, Kan., and the other at Springfield, the latter being constructed in 1908.

## Christmas Fund.

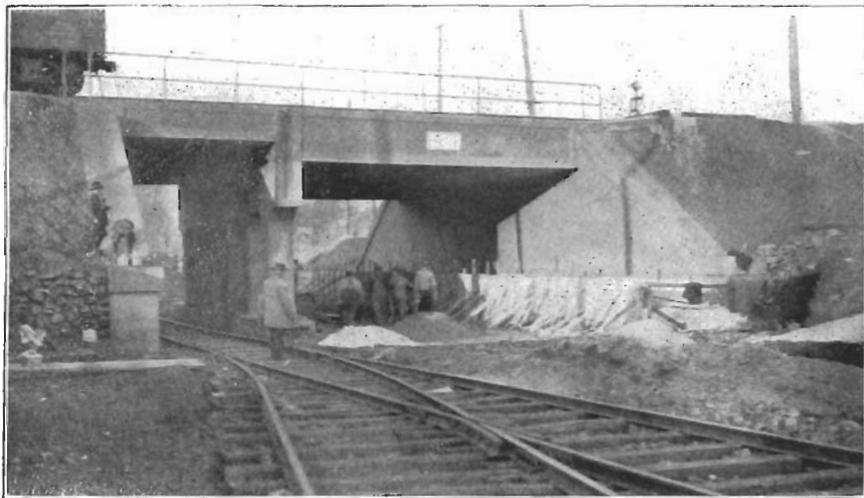
Excellent profits were secured by the shareholders of the Frisco Employees' Christmas Fund Association at the division of the fund early in December, the average earnings per share being \$.545. In this fund there were 1203 shares fully paid up, representing an investment of \$13,232.00, which at the time of the division accumulated to \$13,888.08.



President Frisco Christmas Fund Association with Year's Salary, 1910.

The following officers were elected to serve during the year 1911: W. D. Bassett, president; Glenn W. Hutchinson, L. E. Martin and C. S. Mather, trustees.

O. H. McCarty is appointed superintendent Southwestern Division, with headquarters at Sapulpa, Okla., vice H. F. Clark, resigned, effective December 10.



### Grant Street Subway at Springfield.

A bridge of a new and interesting type was completed and put in service at Springfield, Mo., last October. It serves to carry the Frisco tracks, three in number, over Grant street, and provides one opening of twenty-five feet for a roadway and one sidewalk, and one opening of twelve feet for a street railway.

The structure is built of reinforced concrete throughout and has a very monument-like appearance, as can be seen from the accompanying reproduction.

The top surface and backs of the walks are waterproofed by coating with a tar paint; this, it is expected, will prevent the leakage through of water and the resulting discoloration so often seen in concrete work.

The railway tracks are laid in ballast sixteen inches deep, and can be lined and surfaced in the ordinary way. The bridge is practically noiseless under trains.

This work was carried out under the supervision of J. M. Sells, district engineer at Springfield, Mo.

### Station Agent Changes.

S. M. Keller succeeds H. M. Wright as permanent agent at Roby, Okla., effective December 28.

N. E. Edsons succeeds V. Phillips as permanent agent at Washburn, Mo., effective December 27.

E. W. Howe succeeds H. J. Bruner as temporary agent at Red Fork, Okla., effective December 27.

Miss M. Flood is appointed agent at Coffeyton, Mo., opened as a ticket station, effective December 23.

J. W. Roberts succeeds J. W. Alderman as permanent agent at Leasburg, Mo., effective December 23.

G. W. Smith succeeds T. W. McBride as temporary agent at Quincy, Miss., effective December 22.

E. T. Marshall succeeds C. E. Amos as permanent agent at Smithfield, Mo., effective December 22.

B. F. Smith succeeds G. C. Carney as permanent agent at Marionville, Mo., effective December 21.

W. R. Jameson succeeds T. P. James as agent at Harold, Mo., effective December 27.

F. E. Apple succeeds E. Payne as permanent agent at Antlers, Okla., effective December 21.

J. W. Mabry succeeds P. T. Harris as permanent agent at Plantersville, Miss., effective December 20.

B. M. Long succeeds L. F. Williams as permanent agent at Marked Tree, Ark., effective December 20.

J. R. Dritt is appointed permanent freight agent at Springfield, Mo., relieving W. C. Smith, effective December 18.

O. S. Fream succeeds W. F. Malone as permanent agent at Araphoe, Okla., effective December 18.

J. A. Stewart succeeds F. E. White as agent at Thayer, Mo., and W. P. Morgan

succeeds E. L. White as cashier at Thayer, Mo., effective December 10.

H. A. Rice succeeds B. D. Fallon as agent at Roff, Okla., effective December 20.

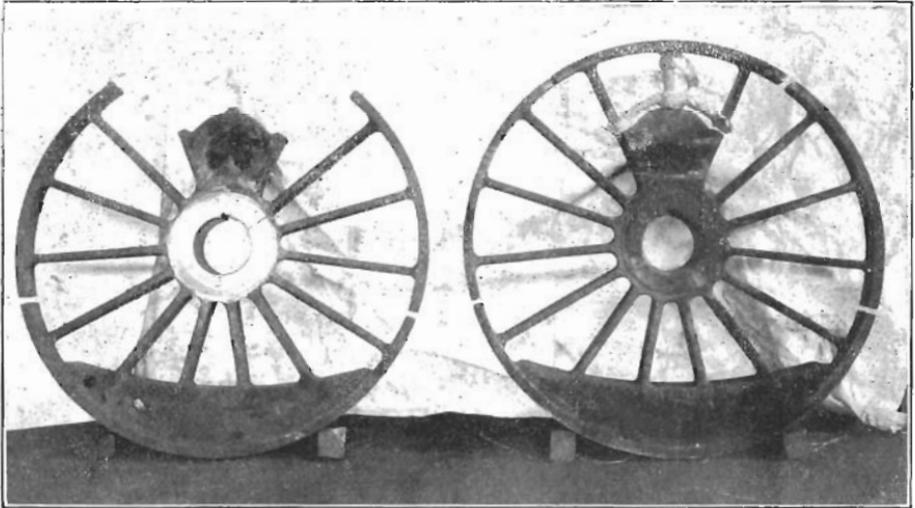
W. L. Hudgins is appointed permanent general baggage agent at Birmingham Union Depot, effective December 15.

Mrs. V. G. Foster succeeds P. M. Julian as temporary agent at Pearl, Mo., effective December 14.

C. L. Armstrong succeeds J. H. Kellett as permanent agent at Ravendon, Ark., effective December 13.

A. D. Mills succeeds L. A. Griswold as temporary agent at Conway, Mo., effective December 12.

W. H. Logan succeeds J. C. Hupp as permanent agent at Fort Sill, Okla., effective December 1.



## What the Thermit Weld Will Do.

The accompanying reproduction illustrates a steel driving wheel welded by the Thermit process at the New Shops, Springfield, Mo., by Blacksmith Foreman M. C. Whelan.

This wheel had one spoke gone and two others broken out. The mould was made and after the work was completed the connections between the breaks or risers were so nice, it was decided to

leave them as they were and not cut them off, as they greatly strengthened the wheel.

All four welds were made with one power, and thirty minutes was sufficient to do the chipping. Ralph Toyne, who has been employed in the blacksmith department for the last three years and who has assisted in a great number of welds, placed the wax and made the mold.