

Building an underpass at Livingston Avenue. By noting the automatic signal to the left, one can get the level of the present main line. The new grade will place the main line on top of the concrete abutment forms seen in this picture

# Improvements At Columbus

## The "Capitol City" Project Will Eliminate Ten Crossings And Greatly Increase Yard Facilities

By O. V. PARSONS  
Assistant Engineer, Roanoke

NINE grade crossings and one railroad crossover will be eliminated when the work of raising our line in its approach to the city of Columbus has been completed. In addition, the east end of Joyce Avenue Yard will be extended so that the capacity of the yard will be increased to nearly 4,000 cars. Also, the heavily graded and curved entrance to this yard will be considerably lightened and straightened. The Columbus grade crossing elimination project, as it is usually spoken of, was started in October, 1928, and it is expected that the big job will be completed about September, 1930. In the grading and yard extension over 1,350,000 cubic yards of dirt will be excavated, and about 30,000 cubic yards of masonry will be erected. The entire project will cost approximately \$4,000,000.

The contractors have been making fair progress considering the weather which is experienced during the winter months. On a job of this size, it requires from two to four months to set up the contractor's plant and get everything lined up for active work. While very little constructive work can be done during the winter months, still it is a good time to assemble the working plant, lay temporary tracks and thus have everything in readiness for the good weather in the spring when real progress can be made.

The first thought of eliminating the street crossings at Columbus was in 1908, when the city engineer began making some studies in this direction. However, it was

not until 1911 that the Columbus city council passed an ordinance declaring the necessity for doing this work. It is very difficult to get all parties together on the plans and methods of such an undertaking, and about three years elapsed before the plans prepared by our railway were approved by the city council. Matters were further delayed until in 1916 because of difficulties incident to reaching a satisfactory agreement with the Ohio Electric Company covering an overhead crossing which the electric company had near Main Street.

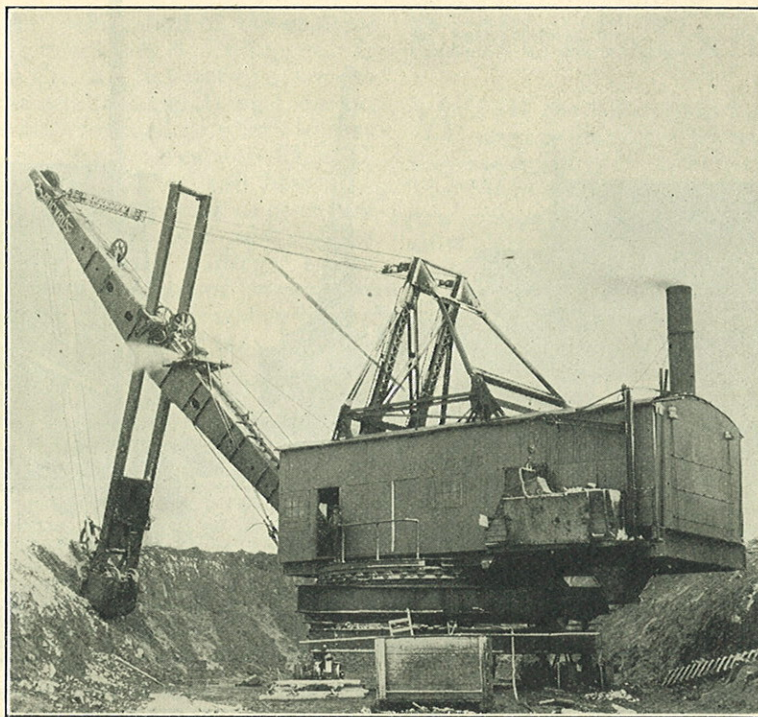
Then came the World War when practically all new projects were abandoned in favor of the business of doing our part "behind the lines." After the war the subject became active again and, because the plans which had been made at that time were not as desirable as they should be, additional studies were made for detouring the railway tracks by a change of line to the east. Options for right of way over this line were taken, but because of considerable objection from the communities lying along this line, this idea was abandoned in 1922.

Under the plans which had been made, the Norfolk and Western would derive no benefit whatever from the expenditures which it would have to make. Nothing would be done to improve the line, grades or operating conditions, except that the existing hazards at grade crossings would be eliminated. From the city's standpoint the plans were undesirable because the depressing



of the streets under our tracks would make bad approach grades at all under-crossings. Further studies were made and our railway decided to extend the elimination work farther north or west to Joyce Avenue Yard, thereby eliminating the grade crossing of its line with the Baltimore and Ohio and Pennsylvania Railroads east of Joyce Avenue Yard. In addition to this Joyce Avenue Yard would be extended and the heavy grade and curve at its east end made considerably lighter. By this plan all streets, except two, would be maintained at their present grades and the tracks of the railway would be lifted a sufficient height to permit this.

The new plan involved a change of line between Mt. Vernon Avenue and the east end of Joyce Avenue Yard, which placed it about 800 feet east of the old line. After the necessary right of way was acquired, it developed that some of the property was in the addition of Eastgate, and subject to certain restrictions. Further delay was brought about in resorting to the courts in this matter and finally a decision was rendered holding that, as a public servant, it is within the province of a railway company to take such land for its purposes, regardless of restrictions, if it can show public necessity therefore. This matter ended all controversies, and in August of last year contracts were let to Morris, Gray and Hunter, of Roanoke, who are doing the grading and masonry work on the original grade elimination



*The largest steam-shovel on the job digging dirt for filling the yard extension. An idea of the size of the shovel may be gained by glancing at the man standing in the doorway in the center of the picture. He is Harry M. Waugh, owner of the shovel and one of the contractors on the job*

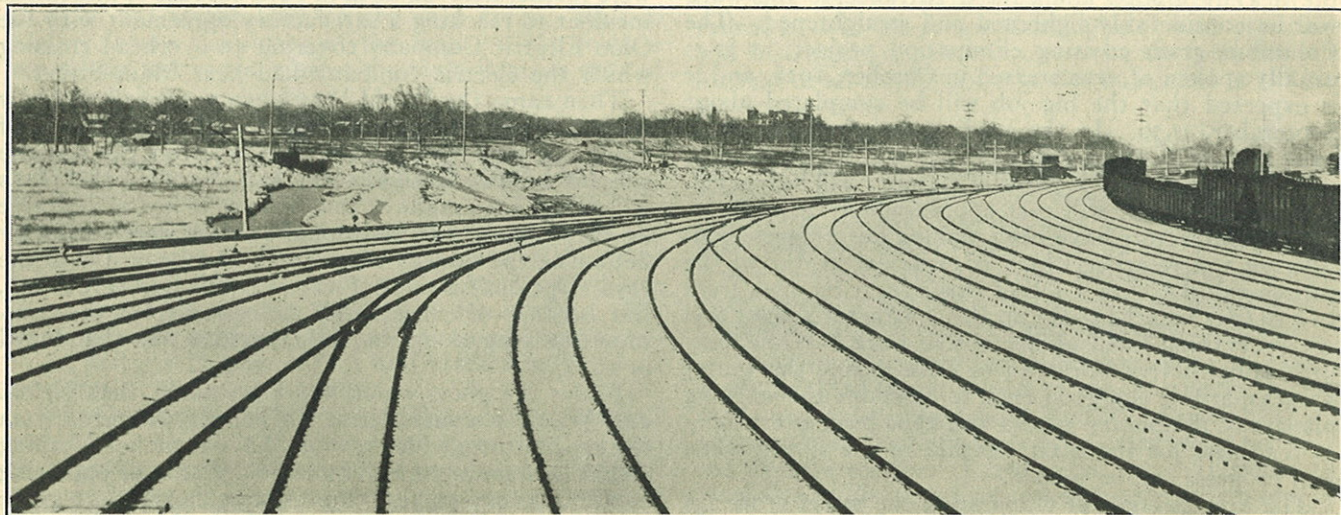
plan. The city is participating in this work. Harry M. Waugh, of Bluefield, was awarded the contract for the grading and masonry work incidental to the change of line and the extension to the east end of Joyce Avenue Yard, north of Mt. Vernon Avenue.

As now laid out, the work comprises the lifting of our tracks for a distance of about four miles from a point near Infirmery, or the west end of Bannon Yard, northward to Joyce Avenue Yard. One highway crossing, Livingston Avenue in the county, nine street crossings in the city, and the tracks of the Pennsylvania and Baltimore and Ohio railroads will be carried under our tracks.

Of these nine street crossings, seven now cross our tracks at grade while two new crossings, Bryden Road and Clifton Avenue, will be opened.

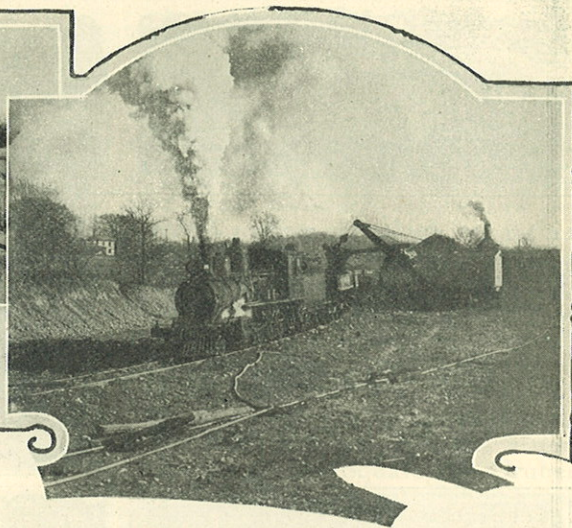
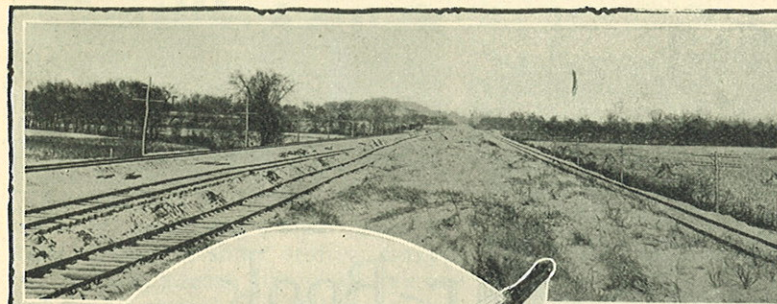
For the first three miles of the work between Infirmery and Mt. Vernon Avenue, the main tracks are thrown temporarily to the right and left and to the outer limits of the right of way, so that the space between the temporary main tracks will be clear and unobstructed for the construction of the masonry under-crossings and filling for the roadbed. With this plan our trains may be operated over the temporary main lines without any interference whatever from the construction work, except at the borrow pit at the east end, where the contractors' work trains for hauling the

*(Turn to page 333)*

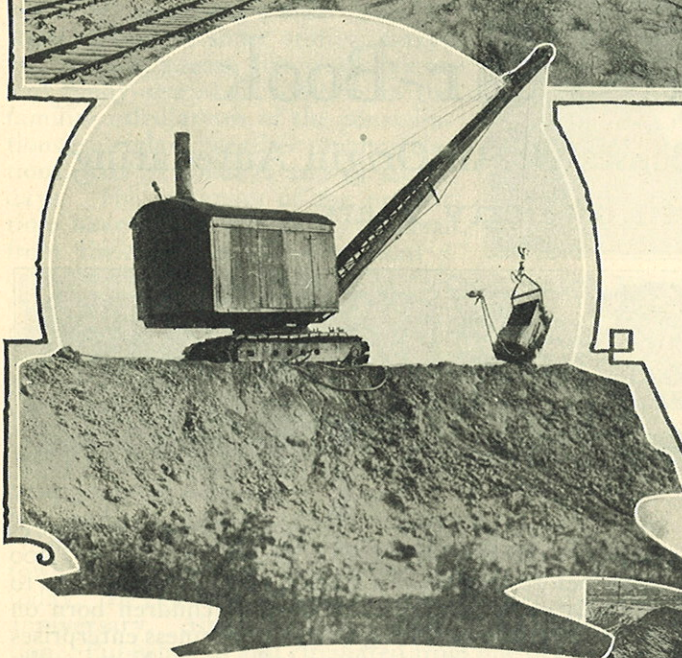


*This heavy curve at the east end of Joyce Avenue Yard will be eliminated. Instead, the tracks will continue straight into the background*





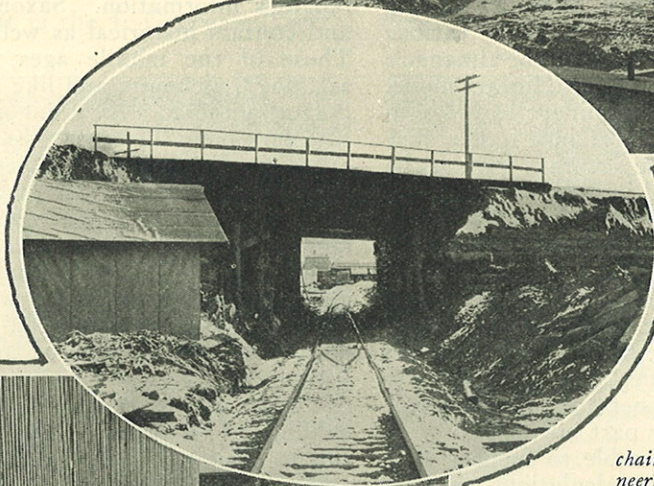
Above: Contractor's equipment excavating material from the borrow pit at the east end of the big job. Above, left: How the east- and west-bound main lines have been thrown to each side so that filling for the raising of the line level can go on without interrupting traffic



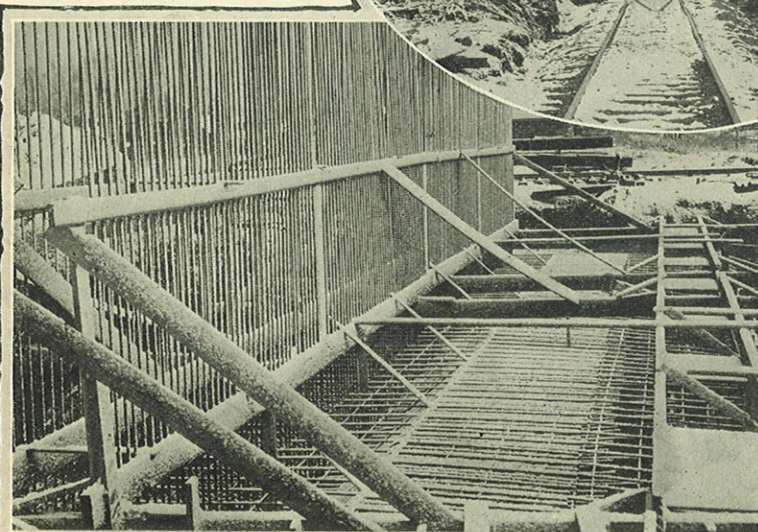
Above: A steam shovel making the fill for the new level



Right: This temporary underpass was built under our present tracks to permit the temporary track to carry dirt to the filling for the yard extension from the borrow pit at the west side of Joyce Avenue Yard



Below: An idea of how steel is used in reinforcing the concrete abutments for underpass. The track at the right will be on top of this abutment when the work is completed



Above: Preliminary work for the extension of the yard over Leonard Avenue. There will be 30 yard-tracks bridged over this highway when the work is completed. Below: Members of the Engineering Department on the job at Columbus. Front row, left to right: J. P. Maloney, resident engineer; A. C. Tinsley, transitman; H. B. McColligan, transitman; L. G. Simmons, inspector; K. S. Pedigo, student chainman, and V. D. Johnson, resident engineer. Back row: C. H. Hughes, inspector; T. G. Mebs, chainman; W. R. Staples, inspector, and P. C. Turner, contractor





time-freights and big engines as they came sailing down the line, 'til finally we found ourselves in the town of Biketon. There we found a place to eat and drink and when we had finished an Eskimo Pie and drinking—not anything strong—a Coca-Cola, I suggested that we go over to the station. There we found Russ very vusy—eating a sandwich. We purchased tickets and chatted until "25" rolled in on which we returned to Waverly.

Charles Oyer, pumper, hasn't had his Buick out since the streets got muddy. He says washing it every day wears the paint off.

### Chillicothe

H. E. FRANK, Roadmaster's Office  
*Correspondent*

Extra Force No. 2 (Foreman T. A. King) which has been on the Columbus grade elimination work has been moved to the Cincinnati Division.

C. T. Blain, foreman, Section No. 5, Chillicothe, who had several bones broken in his right foot some time ago, is able to be out on the job again.

We are sorry to report the death of Mrs. Mary Johnson, wife of Extra Force Laborer William Johnson, who died in her home at Chillicothe recently after a very short illness.

Robert H. Keys, who has been assistant signal maintainer located at Chillicothe for the past several years, has been transferred to Sardinia as maintainer. We are sorry to lose Bob but wish him success in his new position. No appointment has been made as yet for the Chillicothe position.

### Columbus Freight Station

J. A. FARRELL, Clerk  
*Correspondent*

The regular monthly meeting of the Columbus Terminal Association was held in the Penna Employees Club Rooms February 20 with an attendance of 93 employees. Car Foreman W. M. Cramer read an interesting paper on "The Epoch of the Coal Car." Following the reading of this paper by Mr. Cramer, he invited questions from those present concerning the Car Department. There were a good many inquiries and the information given was of benefit to them. The meeting was then turned over to the Entertainment Committee and the employees enjoyed themselves bowling, playing pool and in the other diversions.

The next meeting will be held March 20 at 7:30 p.m. An invitation is extended to all Norfolk and Western employees to attend.

Freight House Foreman John Fleming is again confined to his home, this time with a sprained ankle.

Sam Hanawalt, rate clerk, admits he is the best Euchre player on the Scioto Division. Sam carried away all the honors after the last meeting of the Terminal Association.

P. G. Petry, supervisor of demurrage, Portsmouth, and George Briggs, traveling auditor, were recent visitors at Columbus Station.

Leo Getreu, rate clerk, is having a new furnace installed in his home.

John Cullinan, demurrage clerk, is living a retired life, staying home of evenings and getting acquainted with his family.

Leo Fleming is again making week-end trips to Lima, O., in his Chevrolet. We wonder what the attraction is?

John Jones, over, short and damaged clerk, has recently purchased a new home on Tibet Road.

Charles Horton, cashier's clerk, claims he eats one good meal a week. His wife takes him to a church supper.

John Davis, cash clerk, is a regular patron of the Italian restaurant. Johnny likes his spaghetti.

### Cincinnati Terminal

J. B. HULL, Chief Yard Clerk  
*Correspondent*

General Yardmaster Payne has at last left Norwood and is permanently located in his new country home. Bring on the housewarming, chicken dinners and the other parties which we have heard would be "thrown" when the new place was finished.

Relief Operator "Tom" DeCamp recently took the girl of his choice and executed that march made famous by Mendelssohn. Here's wishing the newly-weds the same same and many of 'em.

Brakeman Edward J. Helson, better known as "Red," is with us again after a furlough of several months. We hope, with him, that he will become a fixture this time.

Operator Pratt returned from his honeymoon trip on February 22. "Herb" started for an extended tour of Virginia and neighboring States but the newly-weds were overtaken by cold weather and returned to his home fireside to finish the honeymoon in comfort.

Conductor W. M. Hodge has returned to duty after an illness of several weeks. We are very glad to welcome him back.

Conductor S. C. Huggins has been on the hospital list for the past two weeks. We wish him a speedy recovery and hope to see him return to duty at an early date.

At this writing, two of the members of the Clare Yard force are making preparations for the celebration of their birthdays. They will not reveal the nature of the celebrations which they have planned but we hope that the details will be available for the next issue.

Operator W. J. Porter is, at this writing, confined in the Bethesda Hospital where he underwent an operation recently. "Port" withstood the operation very well and was reported to be getting along very well.

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### The "Pleasantest" Room

(Continued from page 278)

Surely the ladies of the Family will welcome ideas on the preparation of cold lunches. How hard it is to think of something different for John's lunch basket each day! A cold lunch soon becomes exceedingly distasteful if it is always the same. The contents of a lunch box necessarily must be confined substantially to sandwiches, fresh fruit, cake, cookies and candy. For sandwich fillers:

**SLICED MEATS**—Ham, roast or boiled beef, etc., should be sliced thin. Cut off some good slices for the lunch box when the meat is being used for the family dinner.

**CHOPPED MEAT**—Ham, pork, beef, mutton, etc., should be chopped fine and seasoned with mustard salad dressing, etc.

**NUT AND FRUIT**—Use dried figs,

raisins or dates, chopped finely and combined with ground nuts.

There are many of us who cannot afford to equip our kitchens electrically. Still there are other time-and energy-savers which do not cost a penny—just one good word, one excellent idea passed from one housewife to another.

Each suggestion, each improvement brings the kitchen nearer its ideal—the pleasantest room in the house.

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### Improvements At Columbus

(Continued from page 264)

grading material will cross the west-bound temporary main at grade.

The contractor will use two methods in making the fill for the raise in tracks, one by dumping material and pulling the dump track on successive lifts to the final grade, the other by constructing a trestle at the final grade and dumping therefrom. The construction program calls for the starting of the masonry at the east or south end and proceeding northward with each structure at such a rate that the masonry at each street crossing will be completed in advance of the grading work reaching any particular point. On this section, work is now under way on the masonry at Livingston Avenue, and by March or April the work will be started upon Main Street and Bryden Road, so that these structures will be completed and permit the grading to go forward during the summer.

On the change of line and the extensions to Joyce Avenue Yard the contractor has, at this time, completed the reinforced concrete box for drainage under the track, and is now working on the masonry at Leonard Avenue. The borrow pit for this work is located along the west side of Joyce Avenue Yard, and to convey the material to the change of line on the other side it was necessary to construct an underpass at the east end of Joyce Avenue Yard, just north of Leonard Avenue. Piles were driven and stringers installed under the tracks, after which the contractor excavated an opening through the fill and carried his work track through this opening. This permits the handling of the entire amount of grading on this section of the work without delay to our trains.



When it is opened for traffic, the dangerous grade crossings in this vicinity will be eliminated and permit unrestricted speeds over this section. The objectionable grade crossing of our line with the Pennsylvania and Baltimore and Ohio railroads will be abandoned, and the bad operating conditions due to delays, stopping and starting of trains at this point will be a thing of the past. The heavy curvature and grade at the east end of Joyce Avenue Yard will be lightened. The present grade into the yard is 0.7 per cent, while the maximum grade on the new line from Infirmary to Joyce Avenue Yard will be 0.4 per cent. The yard will be extended so that it will have an additional capacity of about 25 per cent. Each of the 40 tracks of the yard will then have a capacity of from 63 to 133 cars, with a total capacity of 3,728 cars.

The Pennsylvania Railroad maintains and operates a yard of 10 tracks north of and adjacent to Joyce Avenue Yard in which it receives from the Norfolk and Western loaded coal cars to the Lakes and the west. In conjunction with the work which is being done by our railway, this yard will be extended in a similar manner to that of Joyce Avenue Yard, so that provision will be made for tracks holding 96 to 125 cars.

Altogether, with the benefits which will be derived, the expenditure is entirely justified and will show great improvements in operation.

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## Directors Approve Lease

(Continued from page 269)

both inbound and outbound traffic registering increases. The coastwise traffic of the railway through Norfolk reflects a similar healthy development, increasing from 475,721 net tons in 1927 to 489,571 net tons in 1928.

"These gratifying increases in tonnage are partly the result of intensive and intelligent solicitation of business by our soliciting forces. Given the added incentive of new facilities which must be utilized to the fullest possible extent, our forces will undoubtedly redouble their efforts and get the necessary traffic if it exists."

A complete description of the new facilities at Norfolk will appear in the MAGAZINE as soon as favorable action is taken on the lease by the Interstate Commerce Commission.

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## Making It Better

(Continued from page 273)

locomotive had been partly put together, and now hung suspended by great chains and hooks, ready to be moved along by the traveling crane.

Two or three of the men smiled sarcastically as they watched him replace his tool-box in its old place. He knew what was in their thoughts. He was in disgrace!

He had barely unlocked his tool-box, when the electric crane began to move. Slowly the Mallet suspended helplessly in mid-air, swayed gently as it gathered momentum a few feet above the floor.

Suddenly something slipped. With a crunching and grinding of chains, the great mass of iron and steel, weighing over fifty tons, jerked ominously and settled lower at one end. Men shouted warningly, and rushed to safety as a huge chain broke from the tremendous strain, and one end of the locomotive crashed to the floor.

Again the great swinging hulk slipped as another

huge chain tore apart, leaving the entire weight suspended from one big hook.

The foreman of the erecting gang groaned as he gazed frantically toward that one last hook. With hands clenched, and widened eyes he helplessly cursed his luck.

"We're done for, if she goes down on those cylinders!" he cried. "It'll smash her all to the devil and set us back two days on the schedule!"

"'Tain't goin' down," Walker calmly exclaimed, as deliberately he stepped over, and underneath the swinging mass of ponderous steel.

"Pass over some timbers, boys, and we'll block her up," he coolly ordered, as he glanced appraisingly upward to the ominous mass of wheels, valves and heavy mechanism above him.

"Look out, Walker!" the foreman shouted. "For God's sake, man, she'll drop on you!"

But Walker remained unmoved. Leisurely he shoved a huge timber underneath the iron bulk, then reached for another. Once he stopped to get a chew of tobacco from his overalls pocket. With blanched faces and trembling hands the rest of the gang silently handed him the blocking, and drew back with a shiver each time they neared the swinging engine.

With the last block in place, Walker slowly stepped from under the locomotive. It was saved!

A shout went up from the gang. Men cheered as the foreman congratulated Walker on his courage. The latter turned, as Foreman Haines, of the machine shop, hurriedly appeared on the scene.

After hearing the story, Haines exclaimed: "Man alive! haven't you any nerves? You were staring death in the face each second under there!"

Walker smiled grimly, as he drawled.

"There wan't no danger under that engine. You see I made that hook. I recognized it the instant I saw it dangling there—the shank is a leetle peculiar; reckon it's stronger that way, I shaped it and tempered it. Knew jist what stock was in it. Remember that time you banished me to the carpenter shop? I'd jist finished that hook then."

"I calculate I made it a leetle better than specifications called for—"

Foreman Haines held out his hand. "You win, Walker. I'll never again say anything to you about hurrying."

Walker glanced fondly toward the lone hook.

"Why, man," he muttered absently, "you could pile the whole danged shop on that ere hook."

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## How The Railroads Make Friends

(Continued from page 275)

without haggling. I certainly like these railroad boys, and I think we'd all be better off if we endeavored to plan our business ventures on systems similar to theirs. I like them because they are not a bunch of lily-handed never-sweats. They toil at their jobs. They'll transport anything from there to here and vice versa. They don't make a fuss if the freight is dirty and smelly. They don't holler if it is heavy and hard to handle. They don't complain if it is shipped either local or carload. They'll give me the same consideration for a 100-pound box as for a 100 tons. They are a democratic outfit of folk, those railroaders—they play no favorites.—*From the Dexter (Iowa) Sentinel.*



# NORFOLK AND WESTERN MAGAZINE

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ON  
THE  
JOB —

*The  
Yard Clerk*

APRIL, 1929