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Toledo & Ohio Central Engine Terminal

Modern Facilities at West Columbus, Ohio, Erected
With View to Economy in Engine Handling and Upkeep

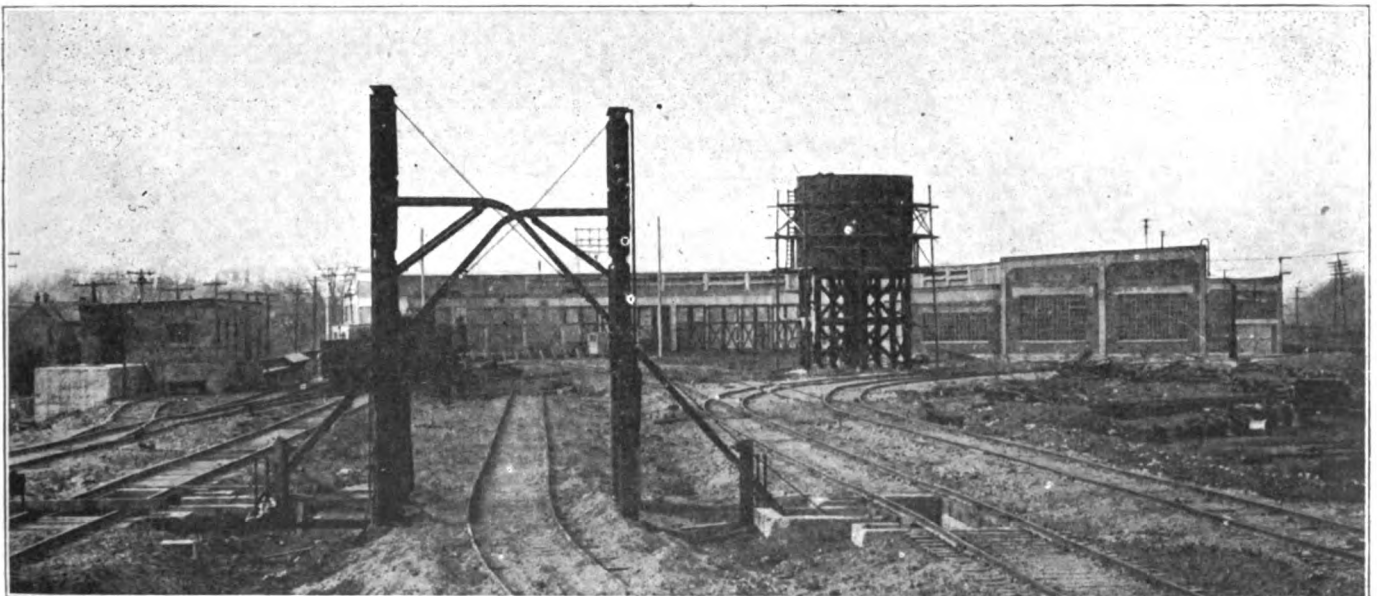
Description of engine terminal constructed on restricted site necessitating a heavy fill. The plant is complete with its own facilities for handling running repairs and for handling locomotives in conformity with the demands of modern practice.

The Toledo & Ohio Central Ry. has enlarged its engine terminal facilities at West Columbus, Ohio, by the erection of a 20 stall roundhouse with its attending repair shop, oil house, cinder conveyors, coaling station, water supply, etc. The site of the terminal is on a narrow strip of land at the extreme west end of the roads West Columbus yard. As shown in the layout, the space available has been utilized to such advantage as to make the terminal approachable from either direction by resorting to a reverse movement on the part of engines coming into the terminal from the West.

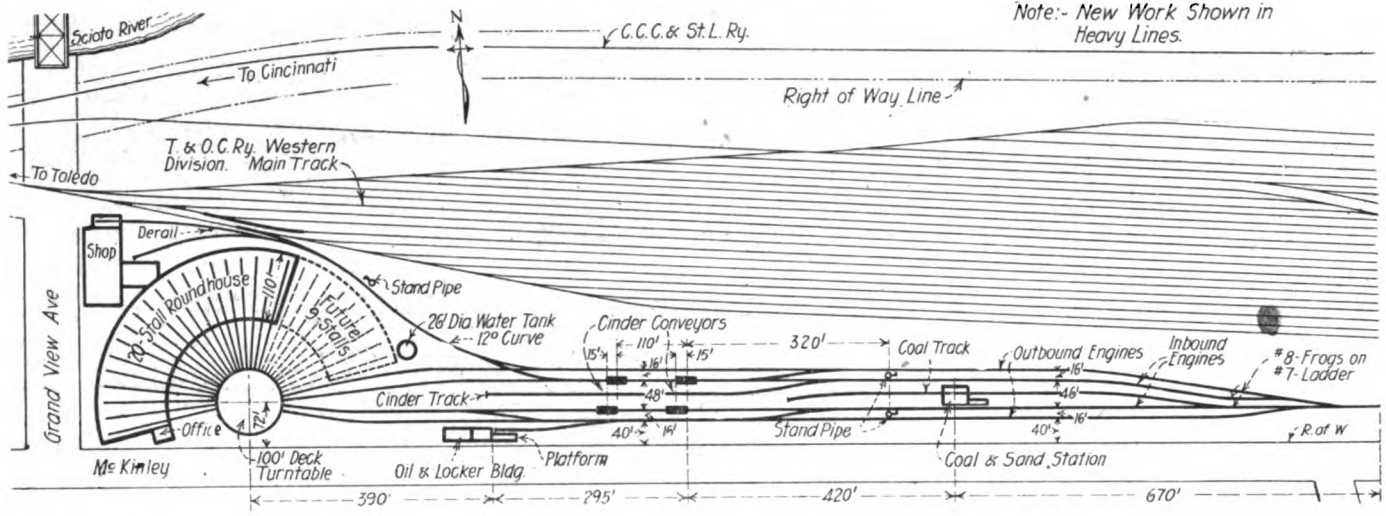
The roundhouse is so located that nine additional stalls may be added when required. It is built around a 100-foot deckgirder turntable electrically operated by means of a Nichols tractor receiving current from an overhead collector. The entire site was subject to an eight or ten foot fill, hence the foundations for both the turntable and the enginehouse, the later including the pit construction and the foundations of the adjacent repair shop and power plant, were cast in concrete above ground. The drainage system of the adjacent yard being at such elevation as to make difficult the run-off of surface water, a pumping system in conjunction with a concrete sump was made to take care of this feature.

The enginehouse and related structures are built with poured concrete frames, the columns resting on footings reaching a distance of about ten feet below the top of the rail. The columns of the enginehouse are so spaced as to give four circular bays in the 110 feet distance between inner and outer walls, three of these bays being 29 feet 4 inches and the fourth of 22 feet span respectively. The roof of the two intermediate bays is elevated to constitute a flat-topped monitor with the slope of its roof directed toward the inner circle of the house. The pits are concrete lined and are erected on bases of corresponding depth to that of the column and foundation footings. Drainage of the pits is also toward the inner circle, there being a sewer connection tapping the series of sumps at the inner ends of the pits into which precipitation from the roof also is drained.

Just inside the outer wall and below the floor is a concrete heating duct six feet wide and of varying depth, supplying warm air from the fan room through vitrified tile distributing ducts at four points in the side walls of each pit. The side and walls of the roundhouse, as is also true of the repair shop and power house, are brick and sash filled, the monitors and also the top panels of the swinging wooden doors likewise containing large glass areas giving an abundance of natural light. The monitor sash have movable sections as a means of providing for ventilation. Artificial illumination is by means of pendant fixtures suspended from the roof girders, five fixtures in each aisle. These smoke-



General View of West Columbus Engine Terminal with Cinder Conveyors in Foreground, Toledo & Ohio Central Ry.

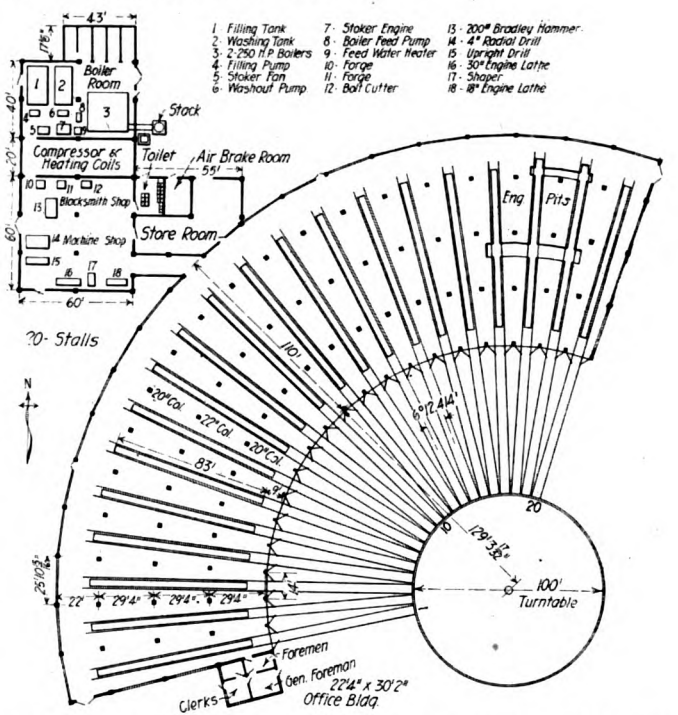


General Layout, West Columbus Engine Terminal, Toledo & Ohio Central Ry.

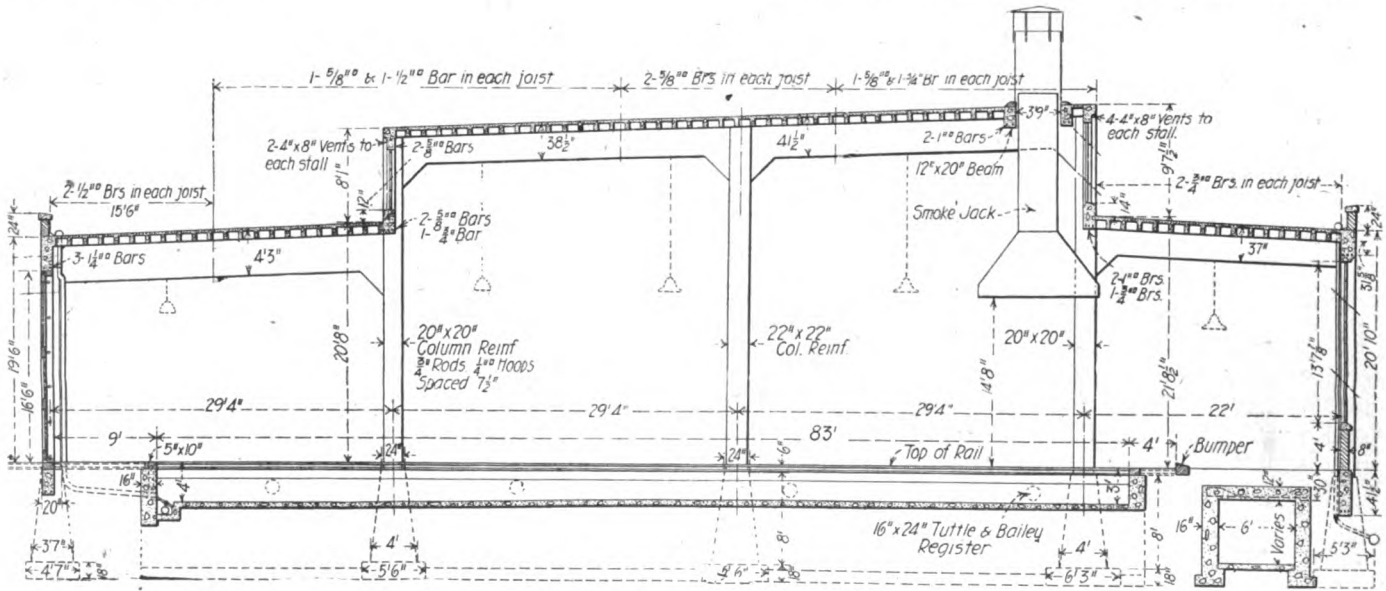
jacks, fabricated from "transite" composition board, clear the rails at a distance of 15 feet 8 inches.

The shop structure, as shown in layout, is continuous with the enginehouse and is equipped with a complement of lathes, drills and forging machinery. Also in this same structure, partitioned off from the shop proper is the heating plant and air compressor room, while in a third room is installed the boiler plant and boiler wash equipment. The two 250 horsepower boilers are stoker fired. Coal is received in a series of pits over which a supply track runs outside the building. The pit structure is continuous with the concrete foundation wall at this end of the building. Interposed between the shop structure and the enginehouse is a storeroom, an airbrake repair shop and the toilet and lavatory for the roundhouse force. The foreman's office is contained in a 4-room one story lean-to at one end of the roundhouse building.

The plant facilities also include an oil house with Bowser oil handling equipment. In conjunction with the oil house is a car-level platform approached by means of a stub track. One end of this building is set aside as a locker room for the employees. Midway between the turntable and the coaling station are two Robinson cinder conveyors serving each of the two tracks for inbound engines and spanning an intermediate service track on which is stationed the car to receive the refuse from the locomotives as their fires are cleaned.



Plan of Roundhouse and Related Repair Shop and Power Plant, West Columbus Engine Terminal, Toledo & Ohio Central Ry.



Cross Section of Roundhouse, West Columbus Engine Terminal, Toledo & Ohio Central Ry.

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The coaling station is a concrete structure of 500 tons capacity, erected by the Roberts & Schaefer Co., Chicago. The plant is operated electrically, the 2½-ton balanced buckets with their elevating gear, being subject to automatic control. The plant includes also a complete hand drying and handling plant, drying being effected by means of stoves in the absence of a convenient steam supply at this point. The service track for the station is built on an incline in order that a series of cars may be delivered to the station at one time, these cars being dropped down by gravity to the station for holding, as the occasion requires.

The water supply for the plant is derived from an elevated wooden tank 24 feet in diameter, there being two standpipes accessible to both the inbound and outbound tracks in the vicinity of the coaling station and a third standpipe at the roundhouse for the use of such engines as do not have occasion to approach the coaling plant.

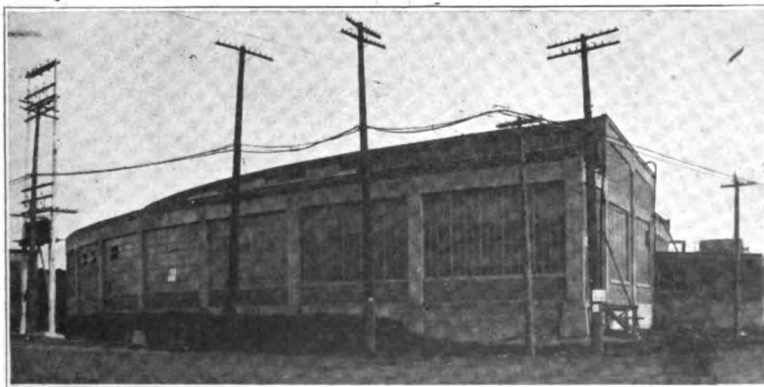
The general arrangement and design of these facilities was determined upon by J. A. Stocker, chief engineer of the Toledo, Ohio & Central Ry., Columbus, Ohio, and his assistant, C. V. Bucher. The general contract for the terminal was handled by the Austin Company of Cleveland, Ohio.

The June Conventions.

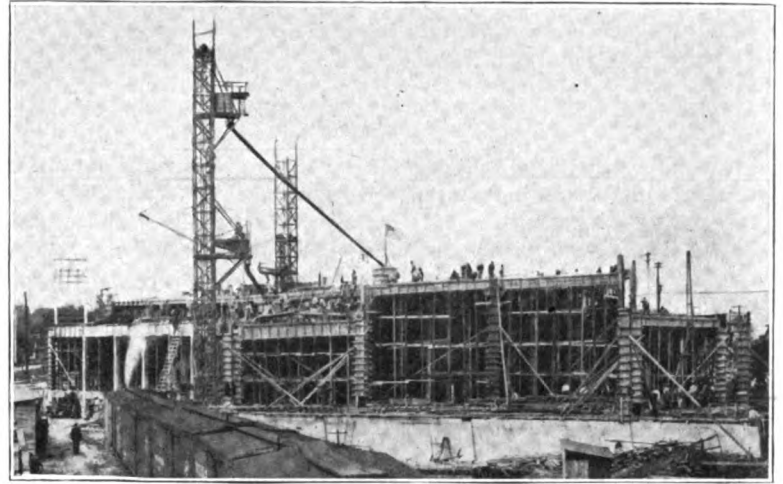
Master Car Builders and Master Mechanics Institute Operations Under Jurisdiction of the A. R. A.

A circular has been issued by V. R. Hawthorne, secretary of the "American Railroad Association, Section III—Mechanical," announcing arrangements for the 1919 conventions of the section, which, up to the present, consists of the former Master Car Builders' and American Railway Master Mechanics' Associations. The announcement of the consolidation of railway technical associations by the railroad administration under the general authority of the reconstituted American Railroad Association was contained in our issue of January '18, there appearing with that announcement a diagram showing the organization of the various associations under a single head that, up to that time, had assented to the proposal of affiliation. From the diagram there presented it will be seen that Section III, the designation of that group of associations dealing with mechanical subjects, is organized under a chairman, vice-chairman, and secretary, working in conjunction with whom is a general committee having jurisdiction over the various subject committees of the subordinate organizations.

The officers of the general committee are C. E. Chambers, chairman, W. J. Tollerton, vice-chairman, and V. R. Hawthorne,



Rear View of Roundhouse, West Columbus Engine Terminal, Toledo & Ohio Central Ry.



Progress View Sixty Days After Beginning of Operations, Toledo & Ohio Central Engine Terminal, West Columbus, O.

secretary. Membership in the committee for the time being, includes three representatives of the United States Railroad Administration, Frank McManamy, C. B. Young and F. F. Gaines, together with two representatives of each of the several operating regions into which the country has been divided, and two members from Canada. For the Allegheny region, these members are C. E. Chambers and M. K. Barnum; for the Eastern region, I. S. Downing and John S. Lentz; for the Pocohontas region, A. Kearney and J. R. Gould; Southern region, J. W. Small and C. F. Giles; Northwestern region, T. H. Goodnow and H. R. Warnock; for the Central Western region, W. J. Tollerton and C. E. Fuller; for the Southwestern region, J. E. O'Brien and A. P. Prendergast, and for Canada, Jas. Coleman and W. H. Winterrowd.

"Rules of Order," taking the place of the constitutions and by-laws of the two associations, have been adopted for the conduct of the business of Section III, their provisions being essentially similar to those of the instruments which they supplant. The following excerpt, covering membership in the section, will be of interest in this connection.

1. (a) The membership of Section 3—Mechanical—shall consist of three classes; representative, affiliated and life.

(b) Representative members shall be those officials of railroads above the rank of general foreman having charge of the design, construction or repair of motive power or rolling stock, who shall be designed by the federal manager or executive official of the member of the association to serve in the section.

(c) Any person having such knowledges of science or practical experience in matters pertaining to the construction of motive power or rolling stock as would be of special value to the section may become an affiliated member on being recommended by three representative members. The name of such candidate shall then be referred to the general committee which shall report to the section on his fitness for such membership. He shall be elected by written or printed ballot at any regular meeting of the section held not less than six months after the candidate has been proposed and five dissenting votes shall reject. Affiliated members shall be entitled to all the privileges of representative members excepting that of voting and being elected to office in the section and may serve on committees on appointment by the general committee, in addition to the regular elected members of such committee.

Such membership shall continue until written resignation is received by the secretary or the membership is terminated by the general committee or by the members becoming engaged in business which, in the judgment of the general committee, would impair his usefulness to the section or discriminate against others similarly engaged. Affiliated members shall not be subject to dues or assessments.

(d) Representative members who have been in good standing twenty years, or members who have served as chairman of the section may become candidates for life membership on the recommendation of the general committee. The names of such members shall be referred to the section in convention for election by written or printed ballot at any regular meeting of the section and five dissenting votes shall reject.

(e) Those persons, active or representative members, who have been in good standing in either the Master Car