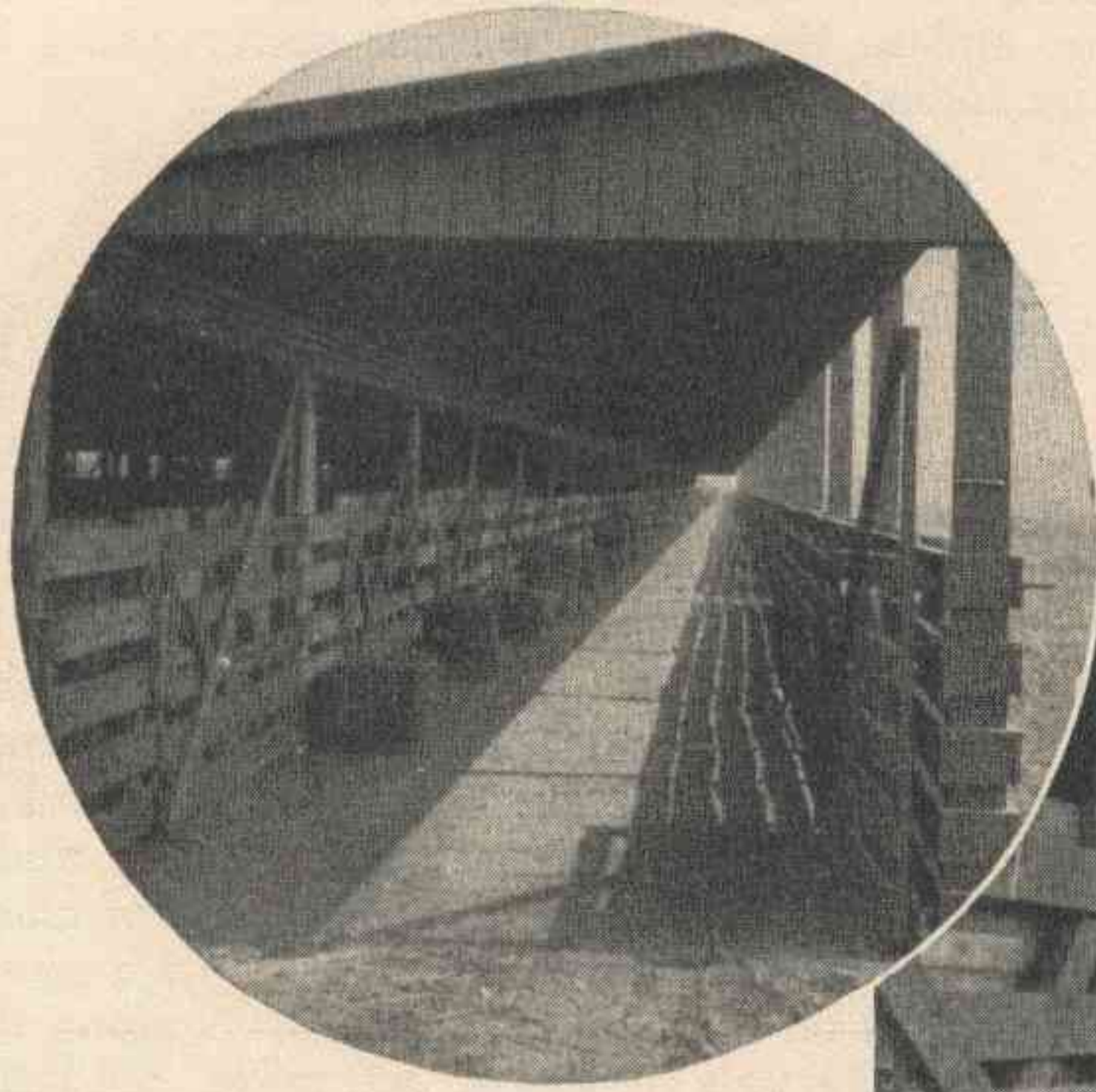


Erie Builds Large Station at



New facilities, which have been provided solely for feeding and resting stock in transit, incorporate many special features



Alleys of Ample Width Were Provided

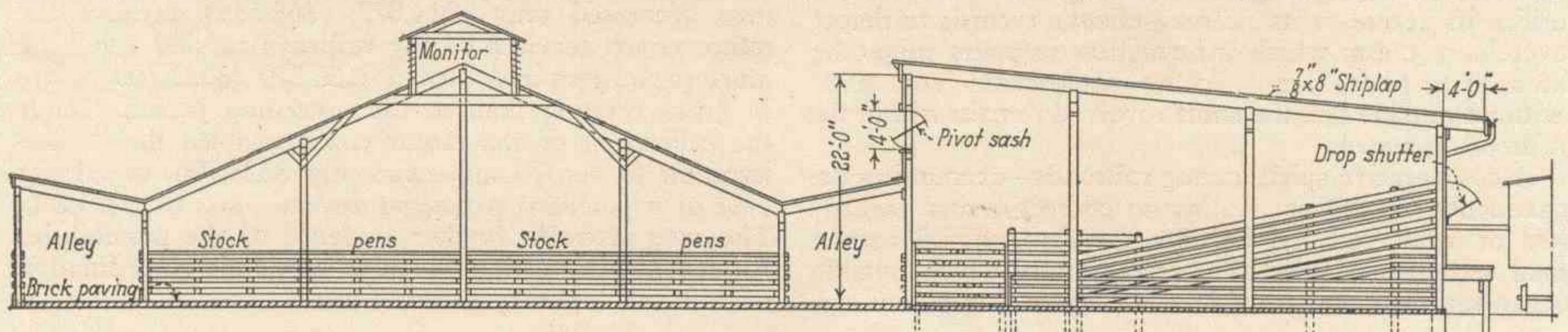
IN ORDER to attract to its lines eastbound livestock business from the central west via its Niagara frontier connections, and furthermore, to make it possible to handle this class of business in the most expeditious manner, the Erie has recently established a stock "feeding-in-transit" station on its lines at East Buffalo, which is not only one of the largest stations of its kind in the country, but also one of the most modern. The facilities at the new station, which are capable of handling over 100 cars of stock a day, consist essentially of a large building with 50 pens and 14 two-level stock unloading chutes, a hay and straw barn, a corn barn, a sand house, a horse barn and wagon shed, and an office building. These facilities, which also include a hog drencher and a car trough watering platform, are served by over a mile of new tracks, including three 28-car tracks in front of the loading and unloading chutes, a 660-ft. supply track extending along the rear of and serving the hay barn, corn barn and sand house, and several crossovers between the main stock tracks for expediting the shifting of cars.

The new facilities are located parallel with Babcock street and just south of Williams street in East Buffalo, on a large tract of land which for years has been under

water to an average depth of about two feet. The accumulation of this water was due entirely to a lack of surface drainage, and therefore, in order to utilize the site it was necessary for the Erie to install about 1,000 ft. of sewers and subsurface drains. This was done, and as a result, a highly suitable area of about 10 acres was made available for the feeding station.

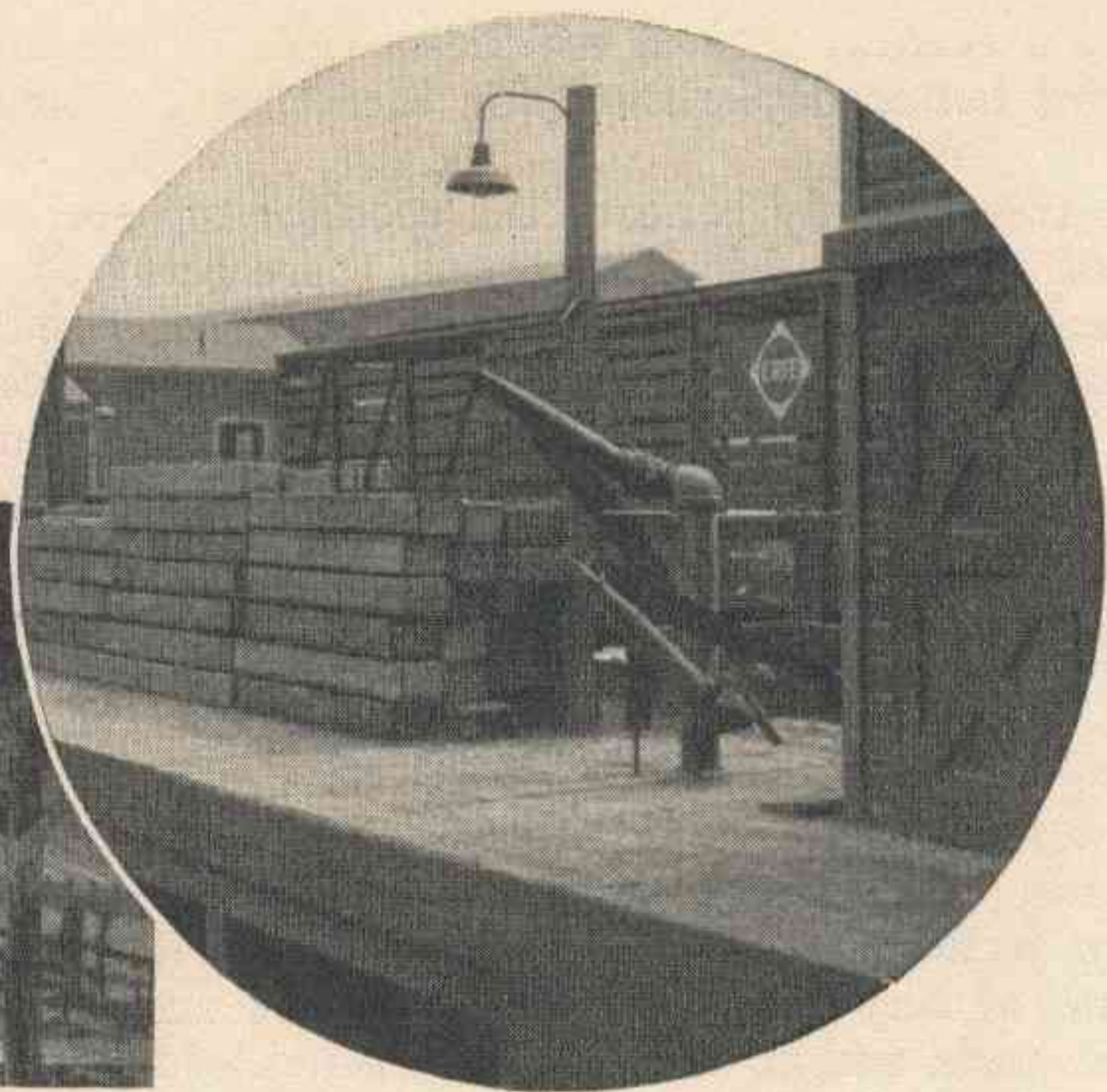
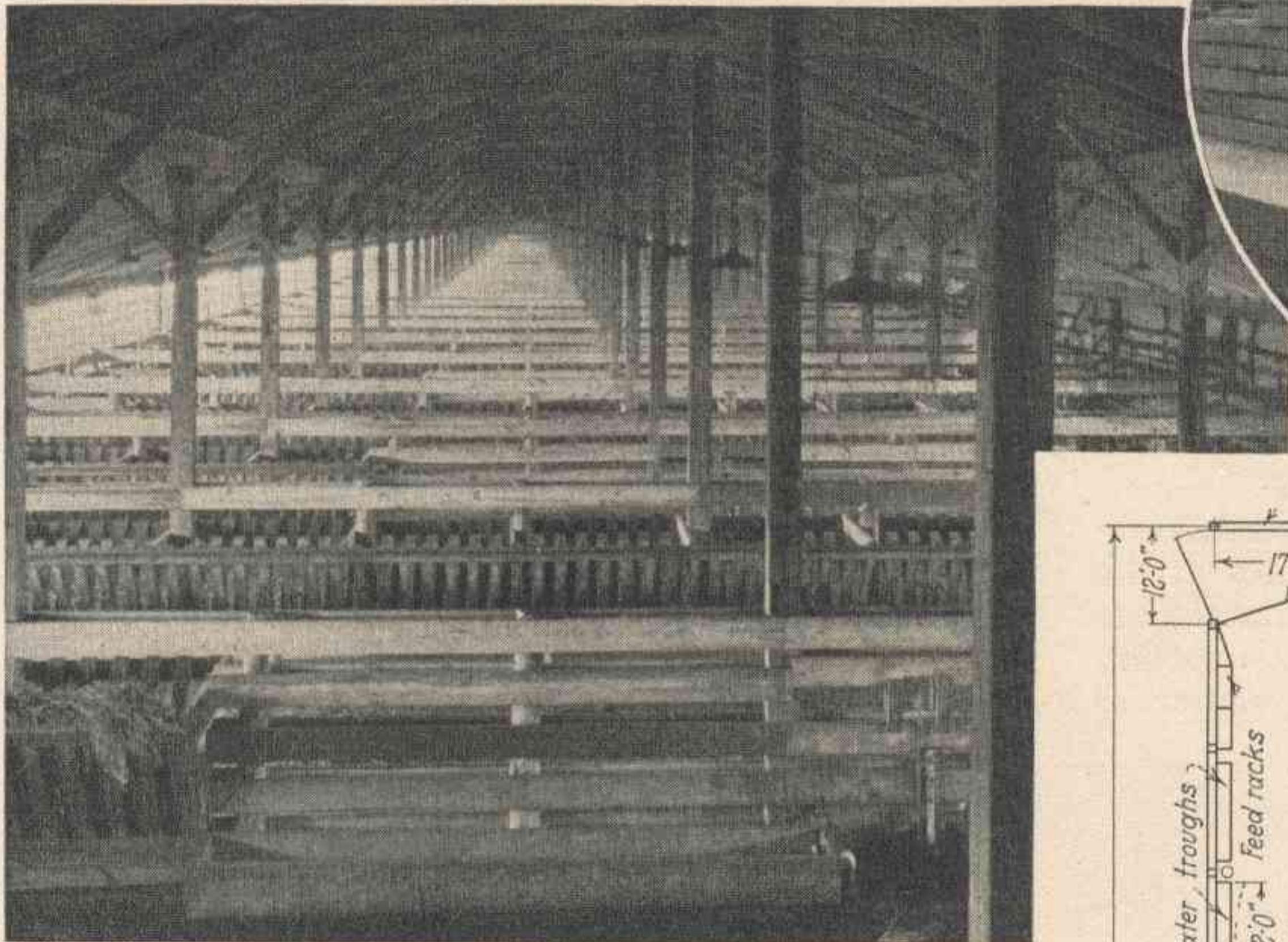
Adequate Fire Protection

The various buildings at the station lie in a general north and south direction, the office and feed barns being located in line with each other at the south end of the main stock yard building. All of the buildings are of frame construction, in view of which adequate fire protection was provided through the construction of a fire road along the rear of the plant, which gives access to four newly-installed four-inch fire hydrants. This fire road, which is constructed of cinders, is 16 ft. wide, and extends from Williams street, a distance of 1,760 ft. to the most southerly building of the station, providing access to all of the buildings for the equipment of the city fire department. Supplementing this precaution against a serious fire, the large stock yard building is provided with six 2½-in. standpipes, each of which is



Cross-Section of the Main Stock Building

Modern Livestock East Buffalo



Looking Over 37 Pens in the Main Bay of the Livestock Building—In the Circle—The Six-Inch Hog Drencher

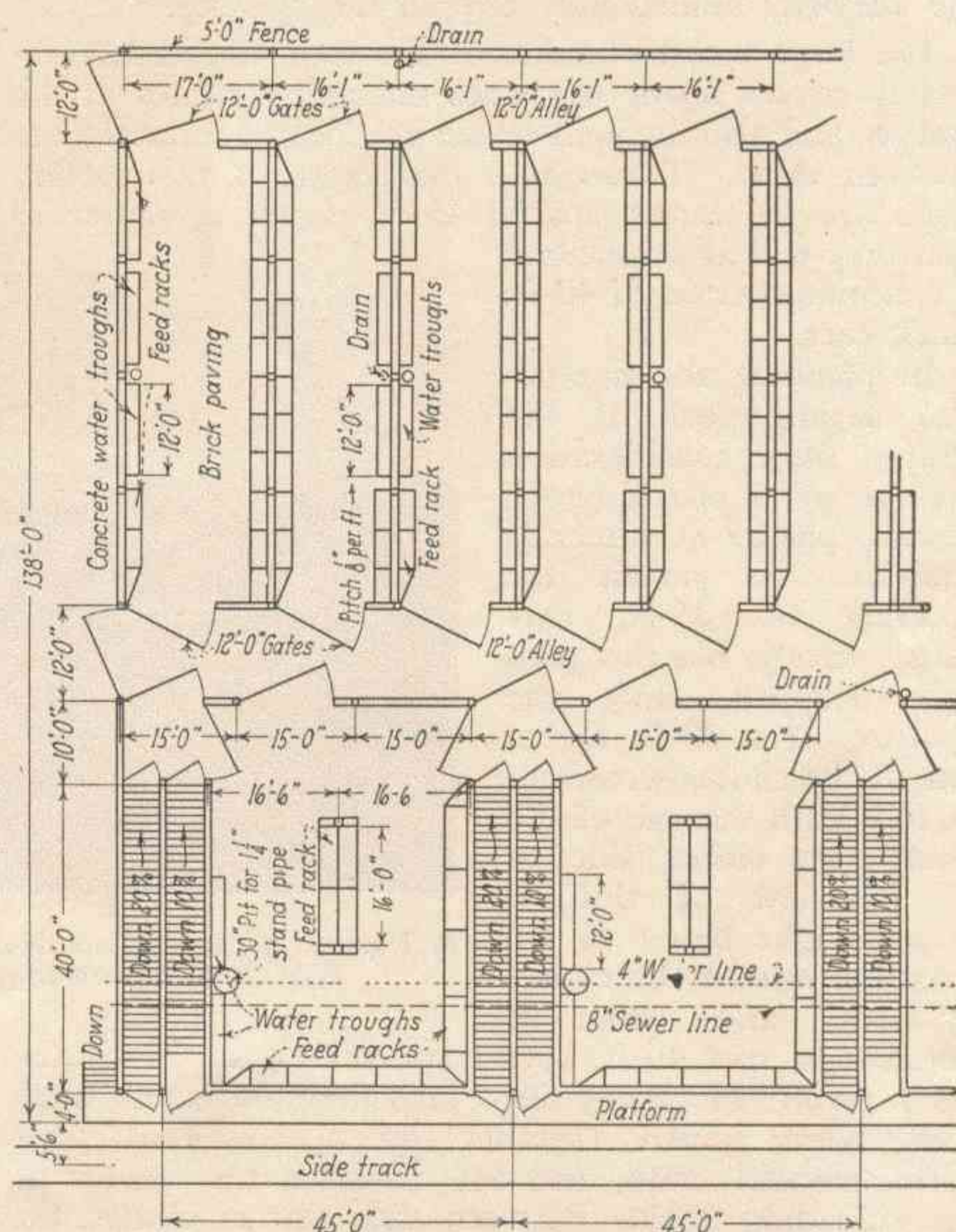
equipped with a self-draining valve and a reel containing 100 ft. of 2½-in hose.

Track service at the station is provided by a lead at the south end of the layout, which branches out into three parallel 28-car tracks. The most easterly of these tracks serves the 14 unloading chutes of the station and is known as the unloading track, while the other two are auxiliary tracks for holding empty stock cars and cars of hogs during feeding and resting periods. The supply track at the station, which also leads off from the south end of the layout, is used entirely for the delivery of feed and bedding direct to the various barns at the station.

New Facilities Provide for Expeditious Stock Handling

As indicated by its name, the Erie's new station is not intended for the holding and marketing of stock, and therefore it cannot be compared in size with stations where this is done, it being the function of this station only to provide a feeding and resting point for stock in transit, in compliance with the federal law. In designing and laying out the new facilities at East Buffalo, several objectives were kept foremost in mind. Among these were the arrangement of unloading chutes to accommodate 40-ft. cars and permit unloading from both decks of double-deck cars at the same time; an arrangement of gates and pens which would preclude long drives to and from cars; and the equipping of pens so that they could be used interchangeably for feeding cattle, sheep and hogs. All of these features have been incorporated in the new layout, as will be noted from the following description of the facilities.

The large stock building at the station, housing the feeding pens and unloading chutes, is a frame structure



Part Plan of the Main Stock Building Showing Layout of Feeding and Watering Facilities

597 ft. long by 134 ft. wide. This building, which is in reality a shed with solid board ends, has a frame roof covered with Flintkote roll roofing, and supported by heavy timber columns set on concrete footings. The roof consists of a large monitor-top section, 60 ft. wide by 598 ft. long, flanked on each side throughout its length by a low, single-pitched wing roof, which slopes inward toward the main roof and affords protection to a 12-ft. alleyway beneath. Joined with the low roof on the track side of the building is another large roof section which covers an area of 50 ft. by 598 ft. This latter section, which is of the lean-to type, has its high point toward the center of the building and slopes toward the loading and unloading track. This section of the roof was completed only recently when it was decided to put all of the pens under cover, and the particular type of roof construction was adopted so as to

provide a vertical face in which sash could be installed to afford better daylighting for the large building interior.

The area directly beneath the monitor-top section of the roof is occupied by stock pens, there being 37 such pens, each 60 ft. long by 16 ft. 1 in. wide, arranged side by side, crosswise of the building. Each end of each of these pens is equipped with a 12-ft. single-swinging gate, which opens into a 12-ft. alley. The alleyway along the rear end of the pens is used primarily for delivering feed and bedding to the pens, while the one provided along the track end of the pens is used primarily as a stock run, and in connection with the cleaning of the pens. As both of these alleyways have been made 12 ft. wide, the 12-ft. gates to the various pens, when fully opened, completely shut them off into sections of any desired length. Thus, opening the gate of any particular pen provides access to the pen for stock, and at the same time provides a barrier in the alleyway immediately beyond the opening.

The large lean-to section of the roof structure completely covers all of the stock-unloading chutes at the station, and also the pens which are located intermediate between them. Throughout the length of this section there are 14 chutes, spaced 45 ft. center to center so that they will accommodate a continuous train of 40-ft. stock cars.

In planning the number and arrangement of the chutes, some consideration was given to providing 15 chutes, placed at intervals sufficient to permit the spotting of 35-ft. cars consecutively, but this plan was dropped, since the spotting of a 40-ft. car at one of the chutes would interfere with the use of the chutes on either side of it. In view of this, it was thought better to reduce the number of chutes by one, and make it possible to spot 40-ft. cars consecutively at 14 chutes. As a result, 14 chutes were provided, and their track ends were joined together by a four-foot platform, parallel with, and 5½ ft. from the center of the unloading track. Between each pair of chutes, the pen space afforded is approximately 33 ft. by 50 ft.

Chutes Are of Two-Level Construction

The unloading chutes at the station are of permanent type, 12 ft. wide by 40 ft. long, and are of two-level construction so as to permit the loading and unloading of double-deck cars, and either one or both decks at the same time. In providing the two-level feature, each chute consists of two independent ramps, 6 ft. wide; a low ramp on a 10 per cent grade to car floor height, and a high ramp on a 20 per cent grade to the upper deck level of double deck cars. Both of these ramps are constructed with three-inch oak flooring, which is provided with footing cleats of one-inch by one-inch and one-inch by two-inch oak strips alternated about eight inches apart. The lower ramp is in practically direct contact with the lower decks of cars over the track platform which joins the chutes together, while a five-foot portable bridge section is necessary to connect the higher ramp with the higher decks of cars. These

short bridge sections are moved into position by hand, and are slid back in the clear on to the higher ramps when not in use.

The moving of these bridges is practically the only instance in the handling of stock at the feeding station where it is necessary to lift runways or gates into position. This has been made possible largely through the effective arrangement of swinging gates provided, which are of such length and so arranged in many instances as to have the complementary functions of closing off one route while they provide access to another route desired at the time. The accompanying drawing shows the functions of the various gates provided and the manner in which they can be operated to provide direct inclosed routes to or from any of the pens of the layout.

Combination Pens Increase the

Capacity of the Station

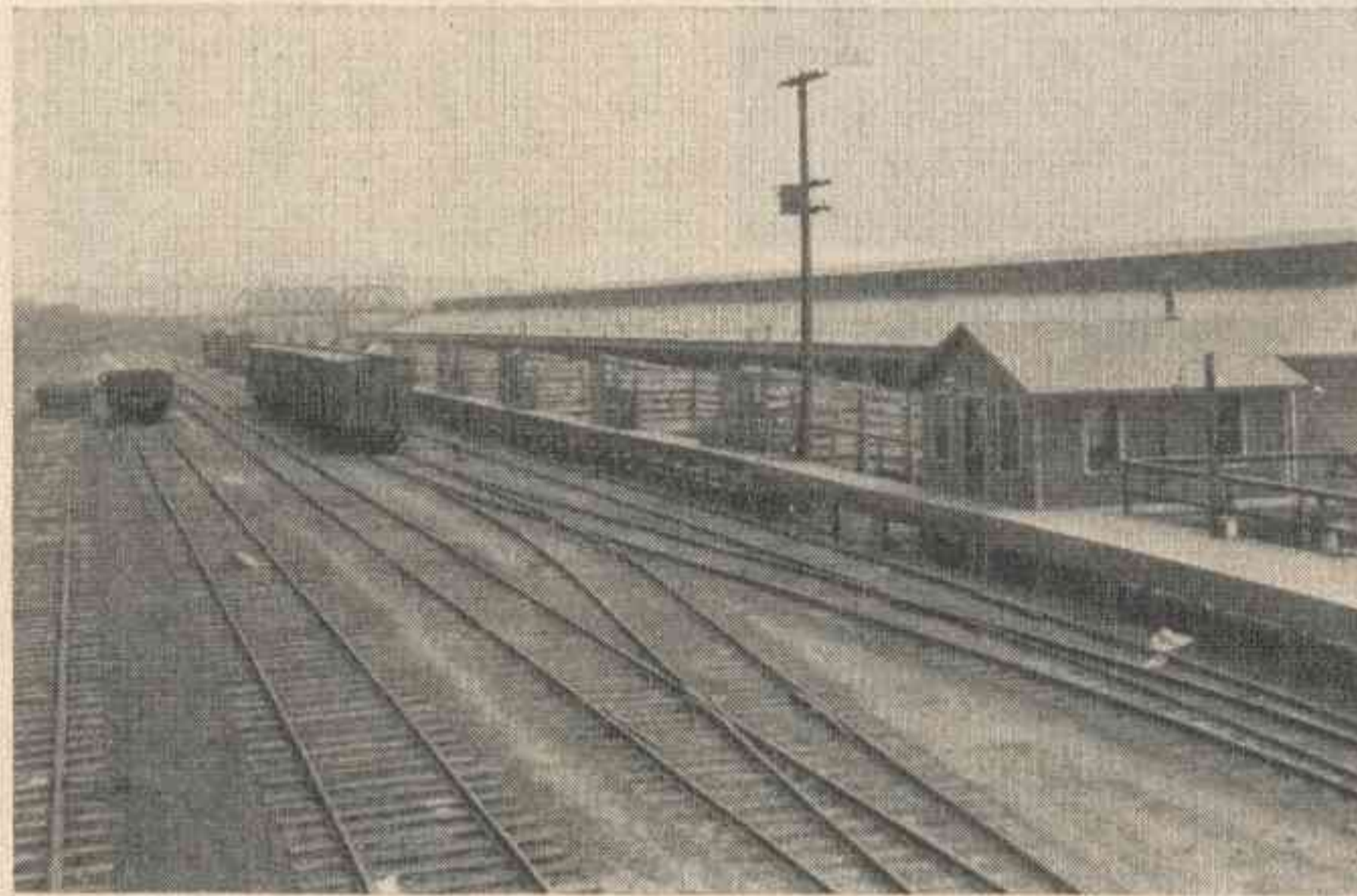
In planning the facilities in the main building, each pen was equipped to make it suitable for both large and small stock, thereby precluding the necessity of assigning various classes of stock to particular pens, which would not only limit the capacity of the station, but would necessitate the spotting of cars or the driving of the stock for considerable distances. In the arrangement provided, each pen can be used interchangeably for cattle, sheep or hogs, no spotting of cars is necessary, and the maximum drive to or from a car does not exceed 80 ft. except in unusual instances. Shortening the length of drive not only speeds loading and unloading generally but also facilitates the handling of crippled or lame livestock.

Within the main section of the building, each pen is equipped with about 85 ft. of high feed racks for cattle, a similar length of low feed troughs for hogs and other small stock, and 24 ft. of

low, concrete water troughs, all of which are of approved design. In arranging these facilities, one whole side of each pen is fitted with a continuous feed rack and trough, while the opposite side is equipped with two 12-ft. water troughs near the center, and with combination feed racks and troughs toward each end. The water troughs, which were manufactured by the Massey Concrete Products Company, are spaced about two feet apart, and within this space there is a 1¼-in. flexible standpipe which can deliver water to both troughs.

In order to prevent freezing of the water in the standpipes, they are equipped with self-draining valves set in concrete wells, 30 in. in diameter by 4 ft. deep. By arranging the water troughs in adjacent pairs of pens back to back along the partition separating the pens, only one valve and drain well is required for each two standpipes, and a minimum amount of work was necessary in connecting the overflows from the water troughs to the main drainage line which extends continuously through the center of the building. The 13 large pens between the unloading chutes are likewise equipped with concrete water troughs and with combination feeding racks so that they can be used interchangeably for various classes of stock.

The only weighing operations at the station are in con-



A Portion of the Erie's New Facilities on the Unloading Side Just Before the Chutes Were Inclosed

nection with imported Canadian stock, which is required to be weighed by customs inspectors upon arrival. This weighing is done on a new stock scale with a platform 14 ft. by 30 ft., and with a capacity of 40,000 lb., which is located in the alleyway along the rear of the pens in the main shed.

Throughout the entire stock building the pens and driveways are paved with a hard-burned vitrified paving brick, laid on a sand cushion and a six-inch cinder base. Sand alone is used for a filler between the bricks in the pens, but a cement grout filler was used in constructing the driveways since they are used by the horse and wagon in delivering feed and in cleaning the pens. Throughout, the floor area is pitched in various directions, providing run-off to the catch basins installed in the drainage system.

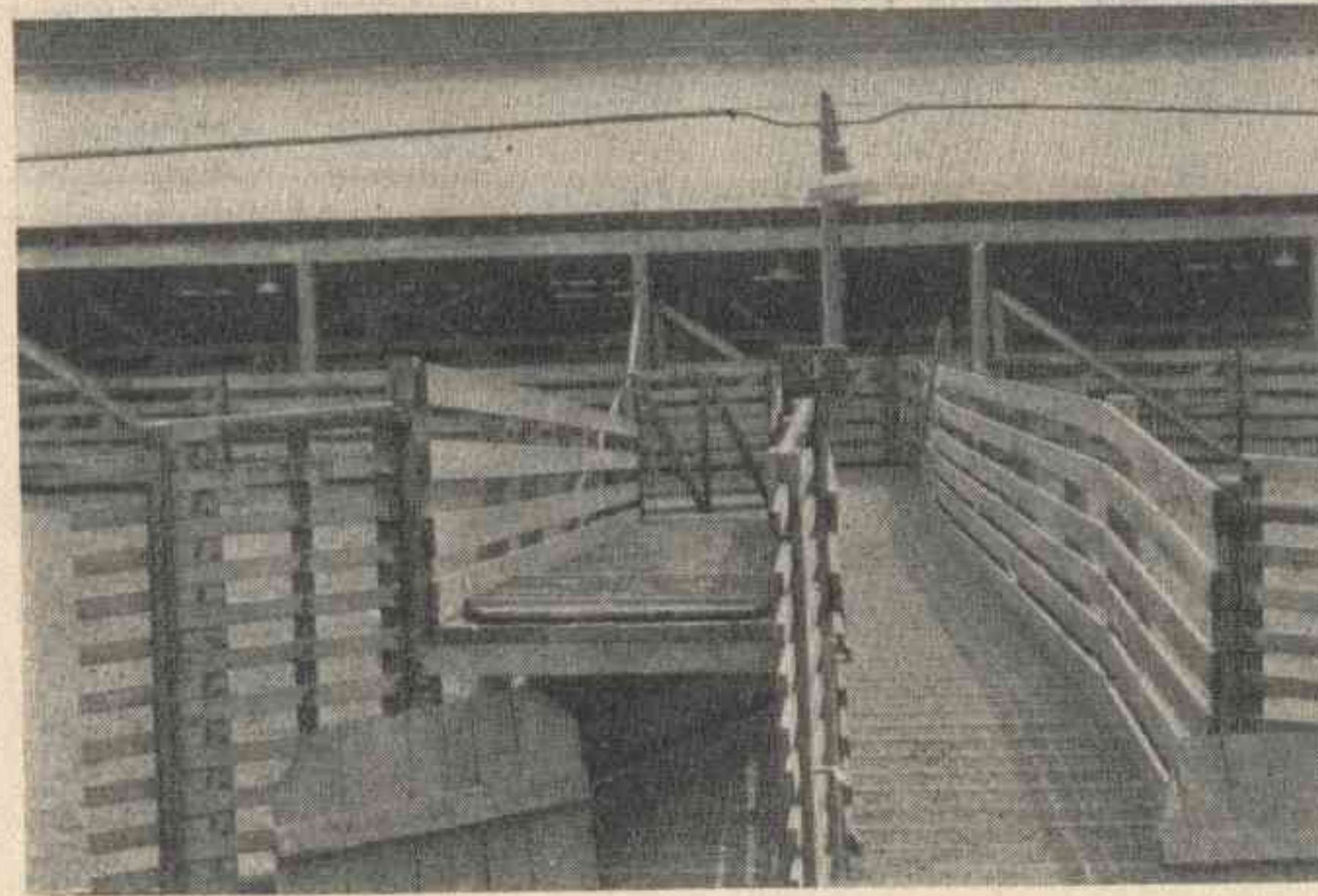
Lighting of the large stock building for night operation is by means of an unusually effective electric lighting system. This consists primarily of longitudinal rows of 100-watt electric lights suspended from the roof structure, each of the lights being equipped with a shallow bowl metal reflector.

The Auxiliary Buildings Are Adequate and Well Laid Out

The buildings at the Erie's stock feeding and resting station which are auxiliary to the main building already described, include the hay barn, the sand house, the corn barn, the horse barn and wagon shed, and the small office building. These various facilities are located in line with each other south of the resting and feeding pens, and between the unloading track and the station supply track.

The hay barn is a frame structure, two stories high, with a monitor-top roof and novelty siding. This building, which has capacity for 150 tons of baled hay and straw, is 80 ft. long by 20 ft. wide, and is equipped with an eight-foot plank platform throughout its length on the unloading track side. Two large doorways in the rear of the building are used for receiving hay and straw from cars spotted on the supply track, while two similar doors in the front of the building are used primarily for loading out the hay and straw for delivery to the stock pens.

The sand house at the station, which is used solely for



Looking Down Over One of the Two-Level Unloading Chutes Before it was Inclosed

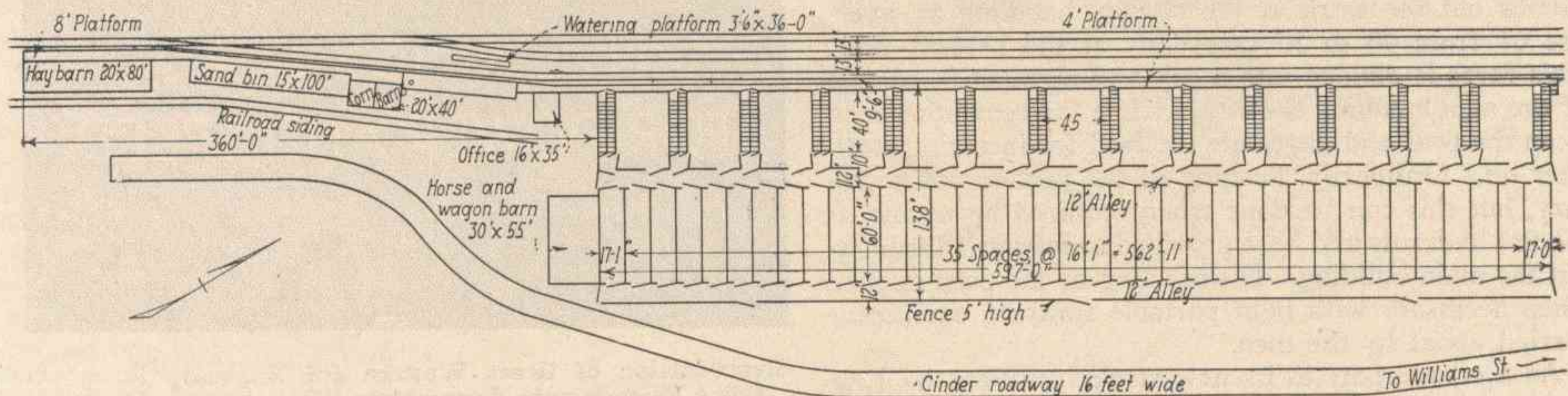
the storage of sand for car or pen bedding for hogs, is a substantial frame structure, 100 ft. long by 15 ft. wide, located just north of the hay barn. This building has a solid concrete wall foundation, which is filled with cinders up to the level of the frame platform which extends along the unloading track side. The capacity of the house is approximately 12 cars. All of the sand is received at the house over the supply track at the rear, and is shoveled to the bins through openings in the roof. Delivery of the sand on the

platform side of the house is made through a number of openings provided with vertical sliding gates. From beneath these gates the sand flows out on to the platform from which it is shoveled into the cars that are to receive new bedding.

The corn barn lies immediately north of the sand house, and like the other auxiliary buildings, fronts on the unloading track. This unit, which is a frame structure 40 ft. by 20 ft., with a capacity of 3,000 bushels, is likewise served by a platform, continuous with the platforms serving the hay barn and the sand house. The corn barn is used solely for housing a supply of corn for feeding hogs in transit, the corn being shoveled into the cars as they are moved slowly by the bin openings.

Directly opposite the corn barn, and between the two tracks at that point, is a 3½-ft. by 36-ft. frame watering platform, which is equipped with a two-inch water line and two hydrants for filling the water troughs of cars as they pass. Two similar hydrants are located on the platform in front of the corn barn, so that four streams of water can be directed into the car troughs at one time.

Just beyond these hydrants, on a continuation of the corn barn platform, is a six-inch hog drencher which is equipped with two spraying nozzles. These nozzles, which deliver a heavy flat spray, are located one above the other, and are fitted with special flexible joints so that they can drench hogs equally well on both decks of double-deck cars. The drencher is hand-operated, and is capable of delivering an adequate amount of water to cars while they are in motion. From the above description of the auxiliary facilities at the station, it will be noted that in handling hogs, the operations of providing bedding, feeding, watering and drenching are practically continuous as the cars are pushed by on the un-



General Layout of the New Stock Facilities at East Buffalo

loading track, and then shunted over a crossover to one of the holding tracks.

The two other auxiliary structures at the station are the horse and wagon barn, and the office building, both of which are of frame construction, the former being 55ft. by 30 ft., and the latter, 35 ft. long by 16 ft. wide. The horse and wagon barn is an ordinary shed type structure used primarily for housing the horses and the wagons and other equipment used in carrying out the work at the feeding station.

On the other hand, the office building is a well-built and equipped structure, with ample office space, and with wash, toilet, and locker facilities for the station employees. This building is heated by a hot water heating plant, and like all of the other buildings at the station, is provided with electric lights.

The stock handled at the Erie's new feeding and resting station is all moving eastbound from Chicago, St. Louis, Omaha, St. Paul, Detroit, Cleveland and other central western points and is held over at the station either because the "in transit" time limit is about up, or in order to prepare the stock for the long ride to the eastern markets. Under present operating conditions, a large part of the stock is received at the station between 6 p. m. and midnight, and is moved on its way early the following morning.

In handling a trainload of stock at the station, the cars containing cattle and sheep are spotted in front of the unloading chutes, while the cars containing hogs are set out on one of the holding tracks. Gates are arranged and unloading then begins, it requiring only from one to five minutes to unload each car and to close the stock in a pen. In most instances this is done in from one to two minutes, a longer time being required only when handling sheep and calves. As soon as the cars are unloaded, they are pulled out to make room for other cars until all of the stock received has been unloaded.

Only Seven Men Employed

When this work has been completed, attention is given to the hogs which have been received, the hog cars being pulled back over the south end of the unloading track where the sand bedding of the cars is replenished if necessary, and where the hogs are fed and watered, and then drenched if conditions require. Operating in this manner a total force of seven men carries out the work at the station, handling an average of from 40 to 50 cars daily at the present time. This force is divided into a day and night shift, certain of the men handling the stock, while the remaining men clean the pens and distribute the feed for incoming stock later on. Ordinarily, flushing of the pens is not necessary, but this can be done when required by means of the fire hydrants and hose provided at intervals throughout the main building. Disinfecting of the pens is done when necessary with light portable spraying equipment carried about by the men.

As a counterpart to its new stock facilities, the Erie is operating a special stock train out of East Buffalo to



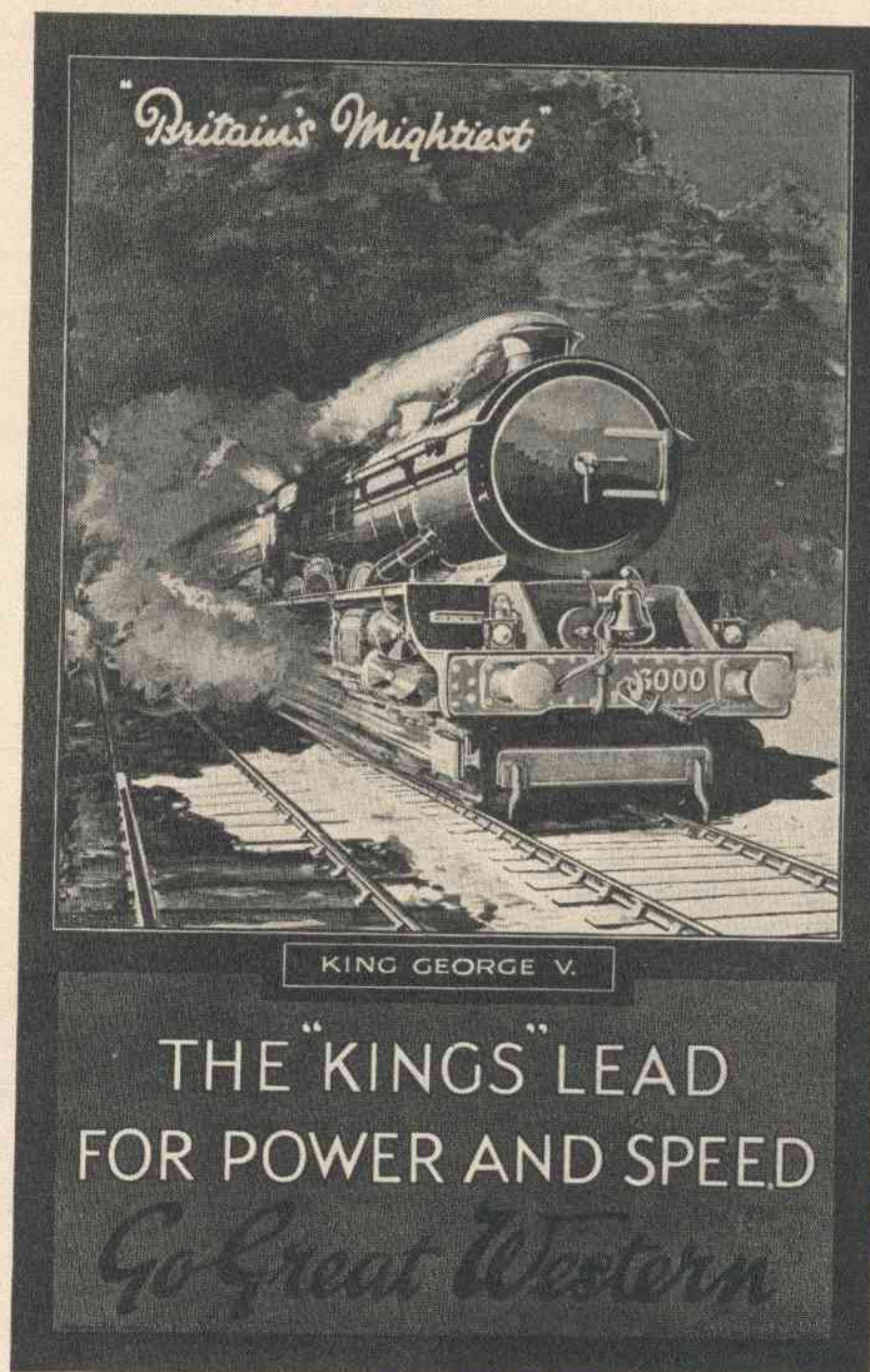
One of the 37 Smaller Pens Ready for Incoming Stock

New York each day. This train, which was put in service the day following the opening of the feeding station, leaves East Buffalo at 6:30 each morning, and maintains a schedule of about 20 hours to New York. On the average, the train consists of from 75 to 100 cars, which includes such fill-out cars as may be added at Buffalo.

The new facilities at East Buffalo, which are operated under agreement by Swift & Company, were planned and constructed under the general direction of R. S. Parsons, chief engineer of

the Erie, until his death on May 18, 1928, the buildings being designed by Graham King, architect of the Erie. The actual construction of the facilities was carried out under the direct supervision of C. H. Splitstone, superintendent of construction, who was represented on the ground by A. Cook, resident engineer. The contractor handling the work was the Newhall Company, Cleveland, Ohio.

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Reproduction of Great Western (of England) Poster in Color Featuring the Locomotive Which was on Display at the B. & O. Centennial Exposition in 1927