

THE "C. M." TOWER AT EAST LIBERTY, PA.

Any signalman who may have occasion to be in Pittsburgh, or vicinity, will find it greatly worth his while to visit the "C M" interlocking tower at East Liberty, on the main line

line, as may be noted from Fig. 2, which is a view taken from the tower window. The tower building is of brick, faced with white stone, as shown. The storage battery room is in the basement, and on the first floor the switchboards, relay

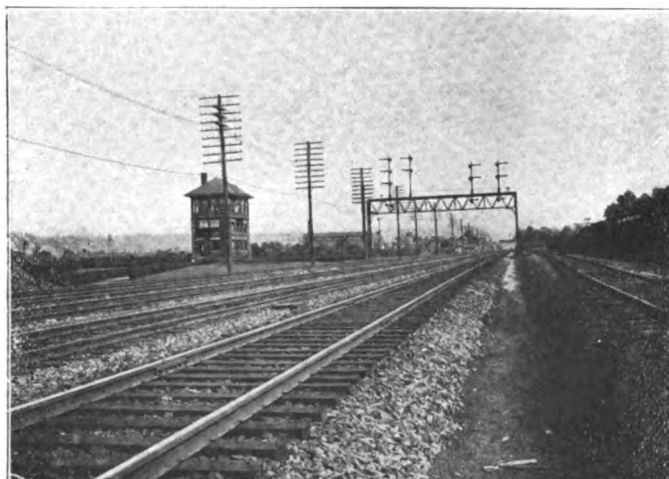


Fig. 1. View of Tower and Track.

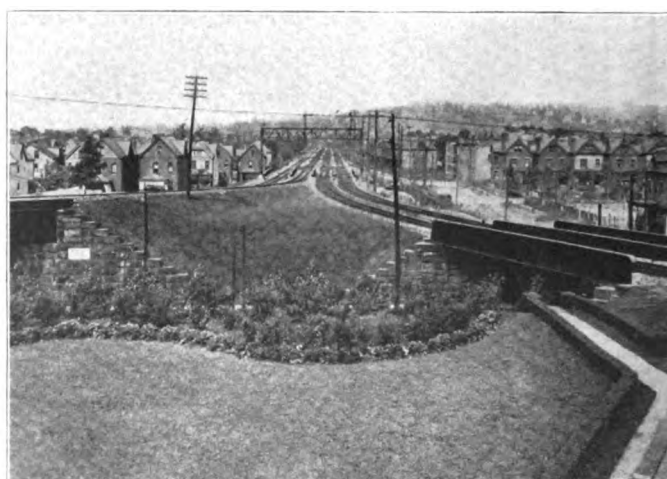


Fig. 2. Looking Down the "Y" from Tower Window.

of the Pennsylvania. This tower is only a few moments' ride from the Union Depot. It is situated at the point where the Brilliant Branch leaves the main line, near the intersec-

cases and motor-generator are situated. The second floor is devoted to office purposes. A telephone exchange occupies one end of this floor. The top floor contains the machine.



Fig. 3. "CM" Tower and Grounds showing P. R. R. Monogram.

tion of Dallas avenue and Hamilton avenue. The tower stands between the two legs of the Y, almost exactly in line with the extension, and almost in the center of the branch

which is shown in Fig. 5, and the train director also has his desk there.

The machine is electro-pneumatic, with 59 levers. There



Fig. 4. Tower and Grounds Looking Toward the Viaduct.

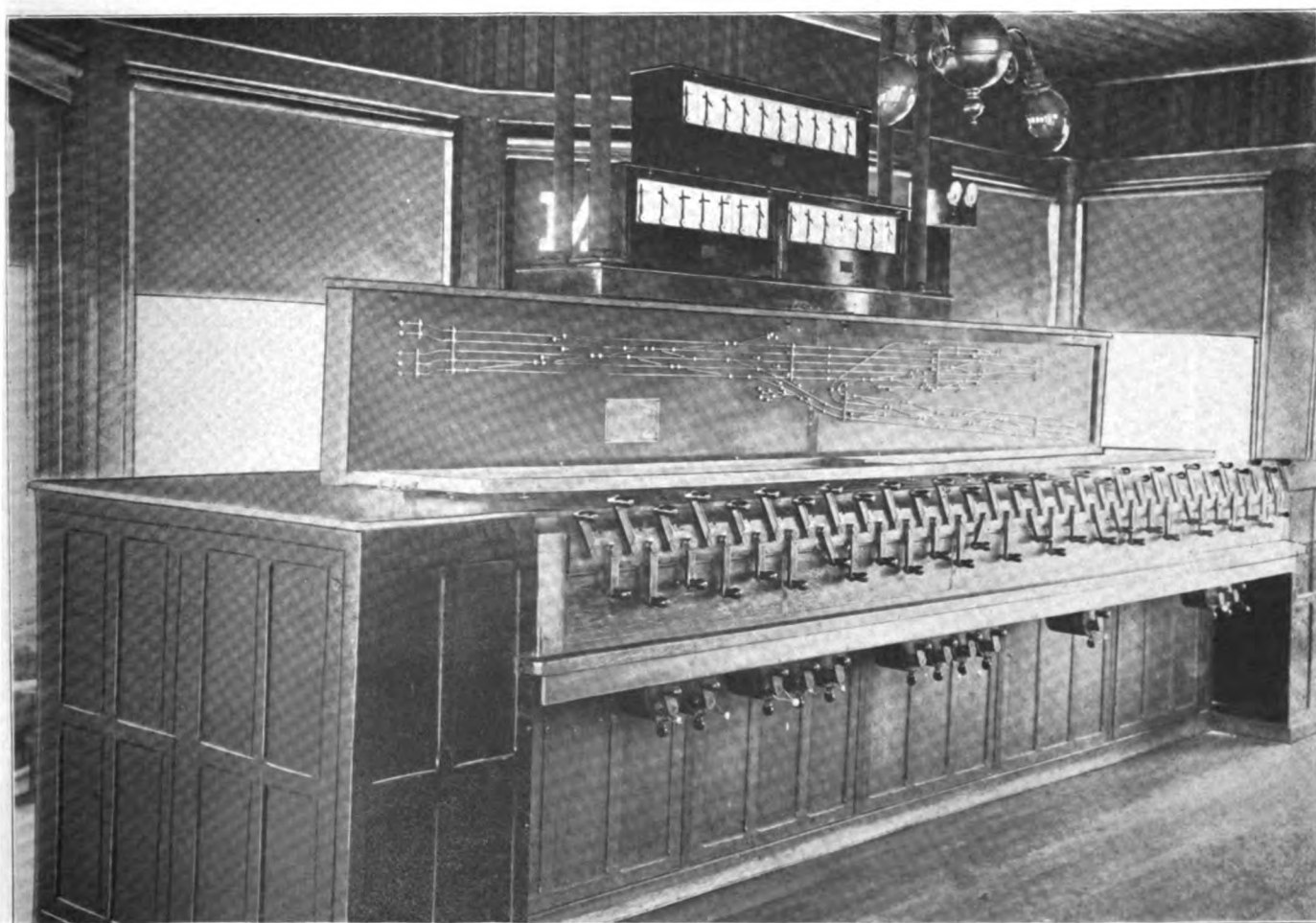


Fig. 5. Machine, Indicators and Track Model.

are 24 signal levers and 29 switch levers, making a total of 53 working levers. The six spare spaces are Nos. 2, 4, 18, 45, 56 and 58, making up the 59-lever frame. The plant was put in service on September 23, 1906.

The grounds surrounding the plant are nothing less than beautiful. The lawns are kept up in perfect shape, and the hedge rows on each side of the paths leading to the tower are kept as carefully and prettily trimmed as those in any city park. The monogram "P. R. R." on the mound, shown in Fig. 3, forms a striking outline in green, white, and red plants. The outline around the monogram is the familiar Pennsylvania Keystone. East of the tower in one of the open lawn spaces is a circular bed of cannas. This may be seen at the extreme right of Fig. 4. South of the tower is a circular bed of geraniums. This may also be seen in Fig. 4. Other flowering plants line the edges of the lawns north and east of the tower.

The tower itself is maintained with the same care that is shown in the upkeep of the ground. Inside and out it is immaculate.

This plant and its surroundings are kept up probably as efficiently as any plant in the country. The maintenance of the working parts of the plant in no way falls behind the

Pennsylvania shall be maintained on the territory in their charge. Fig. 6 shows a plan of the layout and signaling that is controlled by the "C M" tower machine.

STANDARD SWITCH TARGETS

The Committee on Standard Switch Targets of the Roadmasters' and Maintenance of Way Association submitted a report to the convention which was held in Chicago, September 13 to 16, but was unable to make a unanimous recommendation. Four of the six railway maintenance officers who comprise the committee favored the use of a single target to indicate when the switch is set for a movement over the turnout, since for day running the position of the switch-stand and turnout can be seen, and the second target to indicate a main line movement is unnecessary. Two colored lights should be used at night, however, to indicate the position of the switch even when it is set for a straight movement. The Union Pacific uses the two lights for facing point switches and no lights for trailing switches, and entire satisfaction is reported. The recommendations as to size of target were not definite, some urging the use of a large circular target, and one member specifying an 18-in. diameter for main line use and 12-in. for side track. All agreed that the target indicating for a turnout movement should be painted red and securely fastened to the staff. One committee member suggested that when two switch-stands are close together, one staff should be higher than the other to make them both plainly visible, and where a switch is located on a curve or in a sag, a high ladder target staff should be used. Where possible, targets should be located on the right, or engineer's, side of the track. One of the committee objected to the use of circular targets on switch-stands because they are not readily visible at a distance. He showed that the average distance from the center of target to the top of the head block is about $5\frac{1}{2}$ ft., and contended that on account of this low elevation and the shape of the target, such an indication is not sufficient protection for high speed movements. He advocated a semaphore target, to be 3 ft. long, at least 7 in. wide, colored red with a vertical white stripe 6 in. wide, $8\frac{1}{2}$ in. from the outer end, the distance from the semaphore to the head block to be at least 12 ft. He would have this semaphore

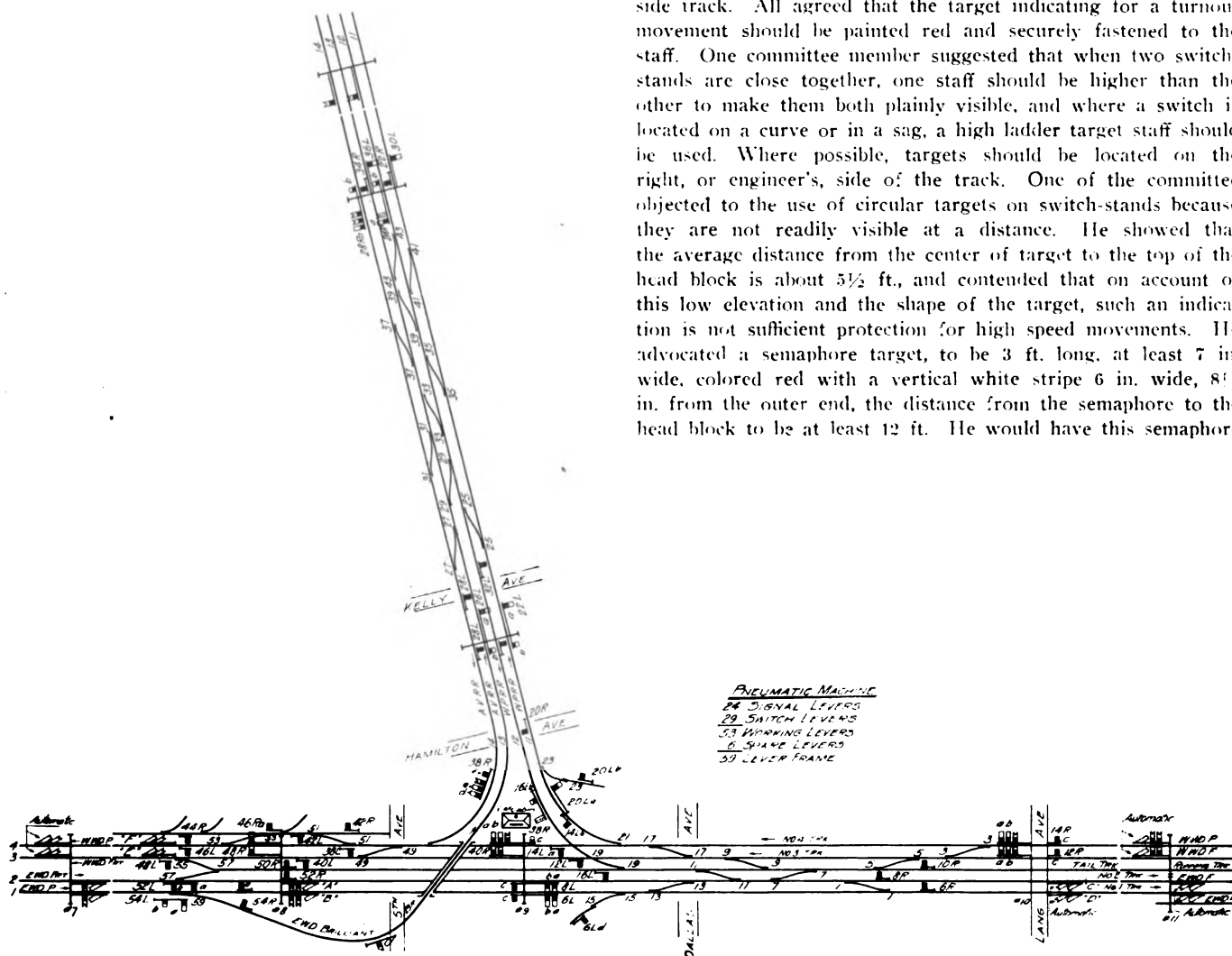


Fig. 6. Layout Controlled by "C M" Interlocking.

care of the grounds. Each is a natural accompaniment of the other, with the result that from every standpoint the "C M" tower is justly worthy of its characterization as "the pride of the Pennsylvania." The credit for this ideal maintenance is due to the signal department officers of the Pittsburgh division, who are unremitting in their insistence that the high standard of quality that characterizes the

indicate in the usual manner, a horizontal position showing that the switch is set for the turnout, and a downwardly inclined position showing the switch to be set for a main line movement. The report was discussed at length before the convention, a motion being finally passed declaring the sense of the association to be that a single target switch-stand should be the standard on all single and multiple track lines.