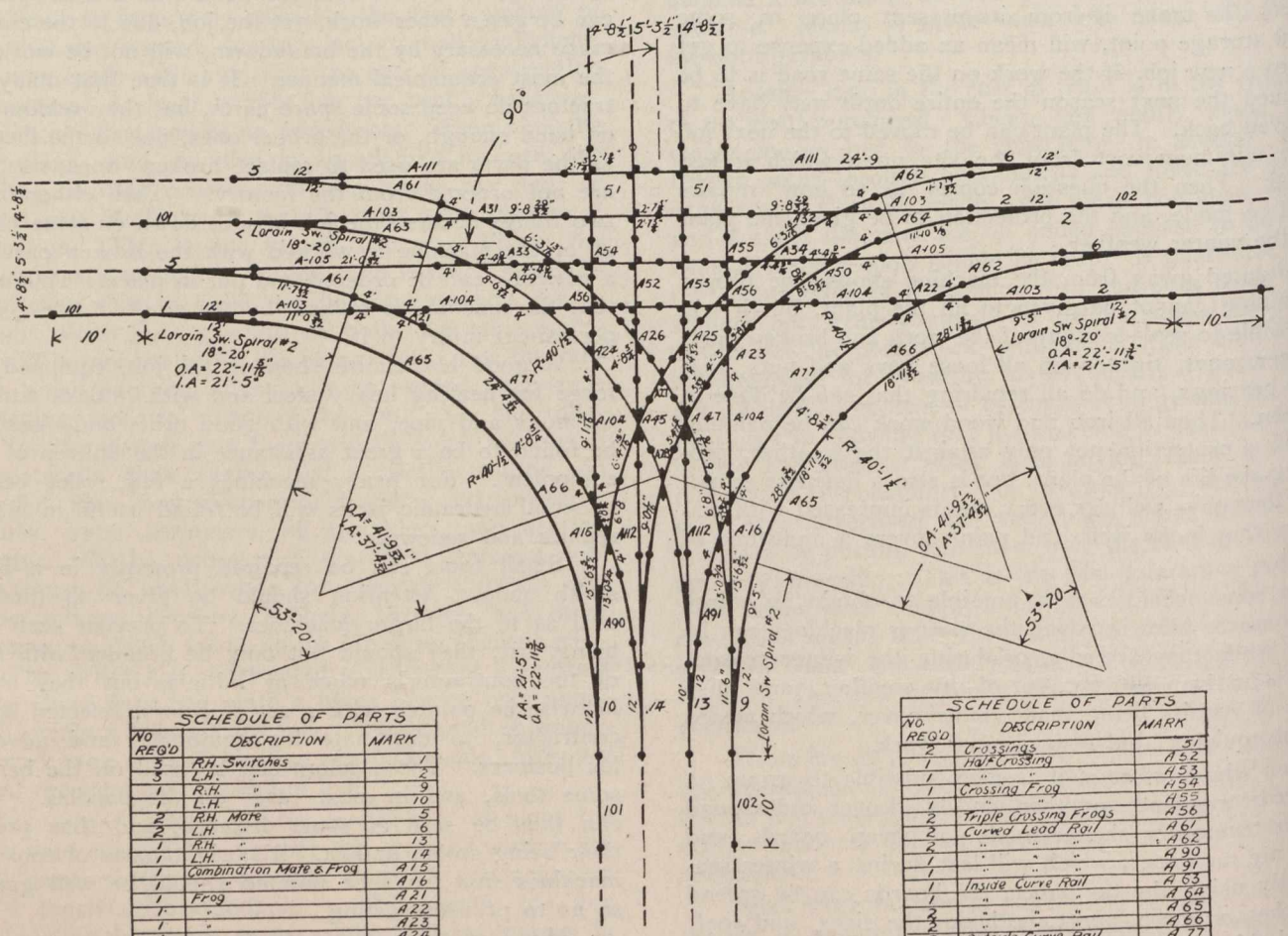
STANDARDIZATION OF STREET RAILWAY SPECIAL WORK.

IN line with the policy of standardizing as much of the material used by it as possible, the Metropolitan Street Railway Company, of Kansas City, Mo., has adopted a set of standards for special work which are very complete. The standards have been tried out for a year or more, and the results so far obtained are very satisfactory. They were worked out under the direction of Mr. A. E. Harvey, chief engineer, who describes them in an article in "Electric Traction," and includes details of rail curvature sections, lengths, etc., in connection with them. The following information is extracted from it, to show how standardization methods are applied in cases where layouts are renewed or new work put in, it being exceedingly desirable that the work be of such character as to be interchangeable and renewable, piece by piece, from stock.

In the establishing of something that could be standard the following points were included in Mr. Harvey's problem as it had to be solved: rail section, radii of curves, length of pieces, material, design, and various minor details in regard to the assembling of the work which present themselves as the larger details are developed.

Rail Section.—In the selection of the section of rail to be used in the special work, consideration had to be given to the fact that a very considerable percentage of the tracks in the paved streets of Kansas City were laid with 100-lb. A. S. C. E. section. This rail has proved exceedingly satisfactory; there was no reason why the section should be changed, and it was desirable that the special work should be constructed so that it would fish with this section without the use of compromise joints. Various problems presented themselves in the detailing of this special work, particularly the question of guarding, but with this problem solved, it was decided that this was the most desirable section for use in the construction of the work.



SCHEDULE OF PARTS

NO REQ'D	DESCRIPTION	MARK
3	RH. Switches	1
3	L.H. "	2
1	R.H. "	9
1	L.H. "	10
2	RH. Mate	5
2	L.H. "	6
1	R.H. "	13
1	L.H. "	14
1	Combination Mate & Frog	A15
1	" " " "	A16
1	Frog	A21
1	"	A22
1	"	A23
1	"	A24
1	"	A25
1	"	A26
1	"	A27
1	"	A28
1	"	A31
1	"	A32
1	"	A34
1	"	A33
1	Double Frog	A49
1	" "	A50
1	Triple "	A45
1	" "	A47

SCHEDULE OF PARTS

NO REQ'D	DESCRIPTION	MARK
2	Crossings	51
1	Half Crossing	A52
1	" "	A53
1	Crossing Frog	A54
1	" "	A55
2	Triple Crossing Frogs	A56
2	Curved Lead Rail	A61
2	" " "	A62
1	" " "	A90
1	" " "	A91
1	Inside Curve Rail	A63
1	" " "	A64
2	" " "	A65
2	" " "	A66
2	Outside Curve Rail	A77
3	Extension Rail	101
3	" "	102
4	Straight Lead Rails	A103
2	" " "	A112
4	" Rails	A104
2	" "	A105
2	" "	A111

Fig. 1.—Special Work Standards for Double Track Closed "Y" and Crossing.

Radii of Curves.—The radii of the curves selected for the standard work is controlled to a certain extent by the width of streets in Kansas City. Some of these are of such width that it was impracticable to use a curve of less radius than 42.5 ft. This, therefore, was adopted as the minimum. There are few places where a larger radius than 65 ft. can be used. These two radii, with one intermediate standard of 50 ft., were adopted as standard, and the special work designed upon this basis. These curves were all used in connection with Lorain spirals No. 2. Using these radii as a basis, the various combinations that might be used in any layout on an angle