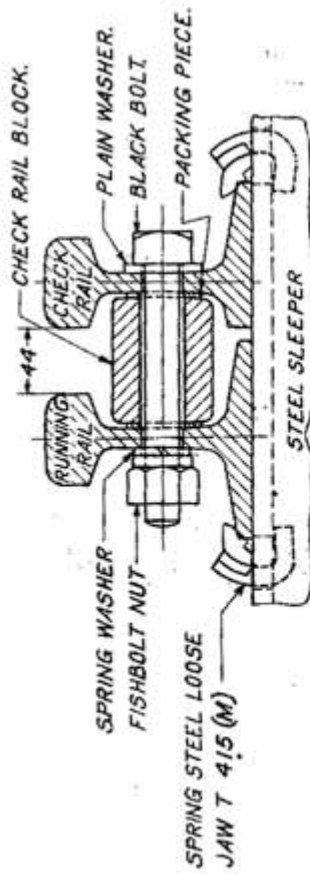
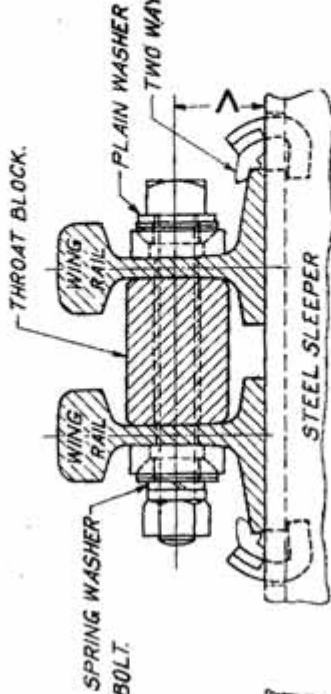


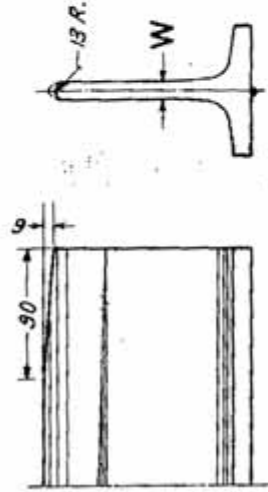
SECTION ON X. X.



SECTION ON Z. Z.



SECTION ON Y. Y.



DETAIL OF NOSE OF CROSSING

TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING#	DIMENSIONS (mm)																					
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
52kg	TA20806	1013	780	440	340	192	376	1307	645	820	760	760	608	752	555	231	197	255	2235	140	1055	67	15.5
90R.	TA20812	1022	804	452	352	118	376	1321	645	820	760	760	594	766	555	230	199	255	2235	140	1055	60	13.9



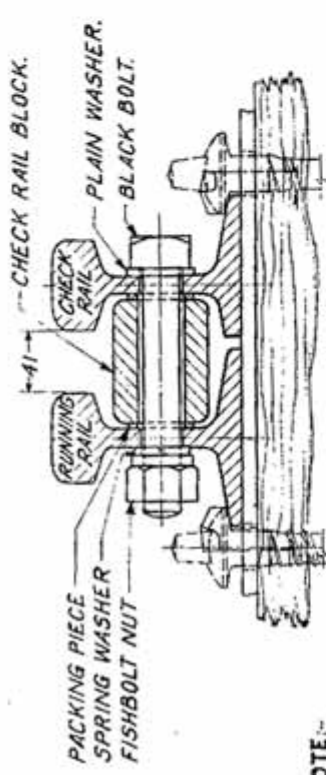
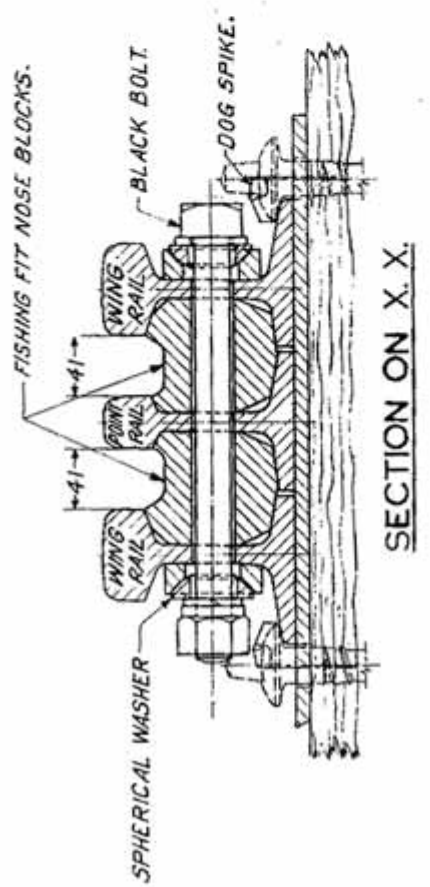
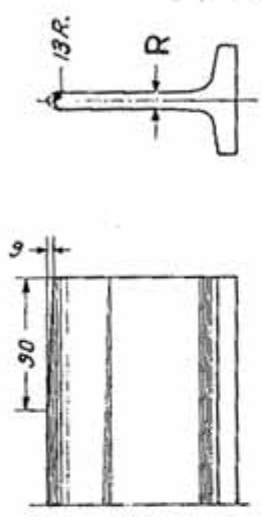
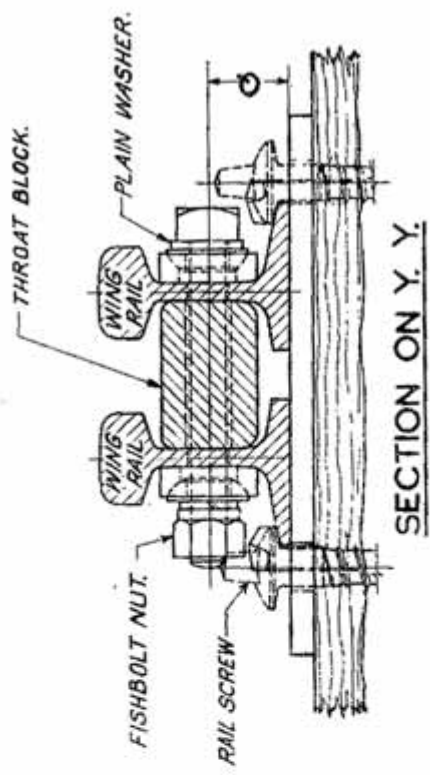


TABLE OF DIMENSIONS

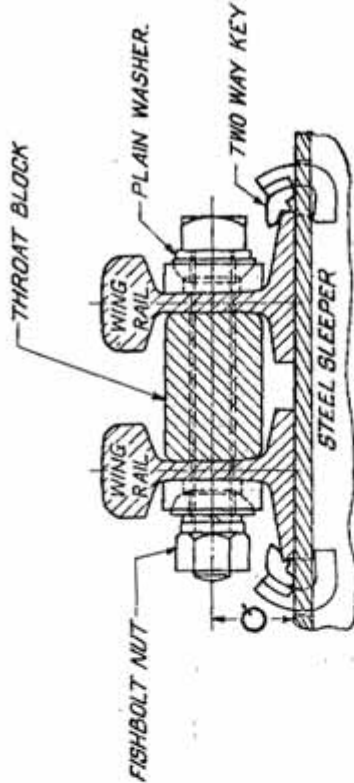
DIMENSIONS (IN MM)

RAIL SECTION	ASSEMBLY DRAWING NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
90 R.	TA 20499	1022	1015	804	452	352	118	1347	510	1085	530	760	230	199	165	1065	60	13-9
75 R.	TA 20406	946	915	734	417	317	112	1353	510	1130	535	710	239	200	165	1065	54	13-1
60 R.	TA 20409 & TA 20461	881	915	686	393	293	95	1370	510	1130	535	710	247	202	165	1065	47.5	11-1

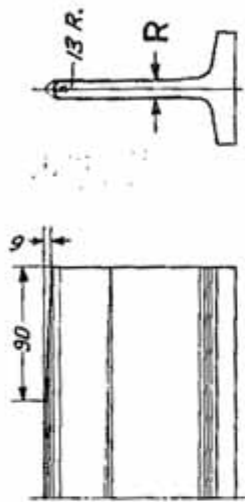
NOTE:-  
DOG SPIKES FOR TA 20406, SECTION ON Z. Z.  
TA 20409 & TA 20461.  
RAIL SCREWS FOR TA 20499.



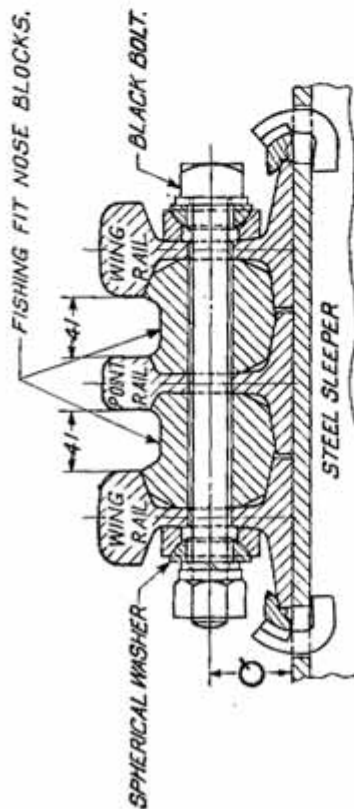




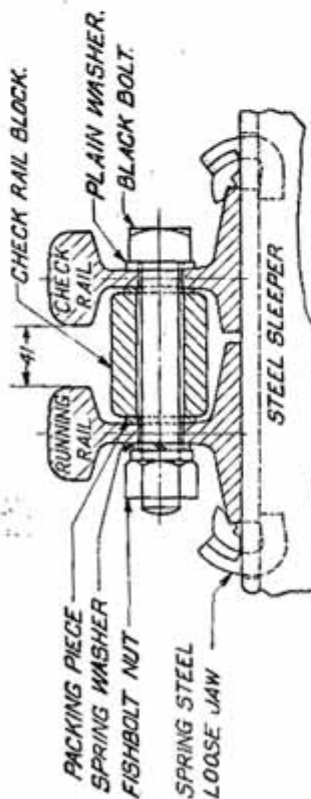
SECTION ON Y. Y.



DETAIL OF NOSE OF CROSSING



SECTION ON X. X.

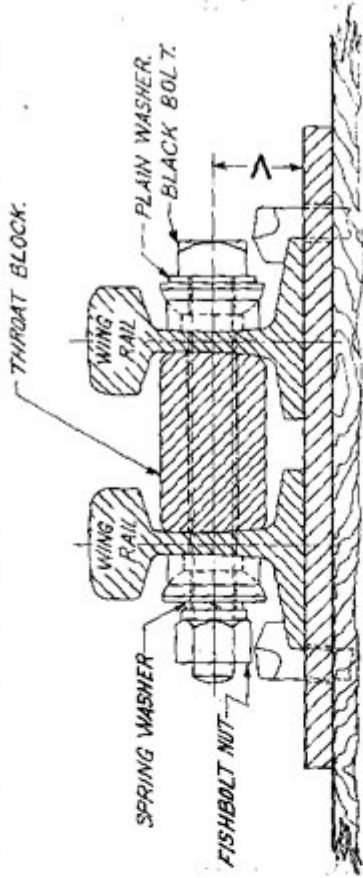


SECTION ON Z. Z.

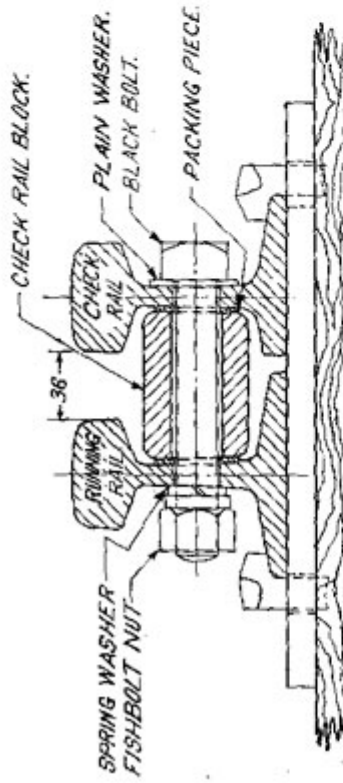
TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING NO	DIMENSIONS (SPR. MET.)																
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
90 R.	TA 21027	1022	1015	804	452	352	118	1347	510	1085	530	760	230	199	165	1065	60	139
75R	TA 21006	946	915	734	417	317	112	1353	510	1130	535	710	239	200	165	1065	54	131
60R	TA 21009	881	915	686	393	293	95	1370	510	1130	535	710	247	202	165	1065	47.5	111

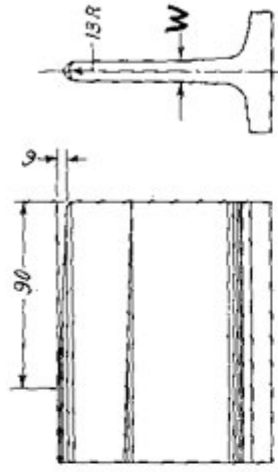




SECTION ON X.X.



SECTION ON Z.Z.



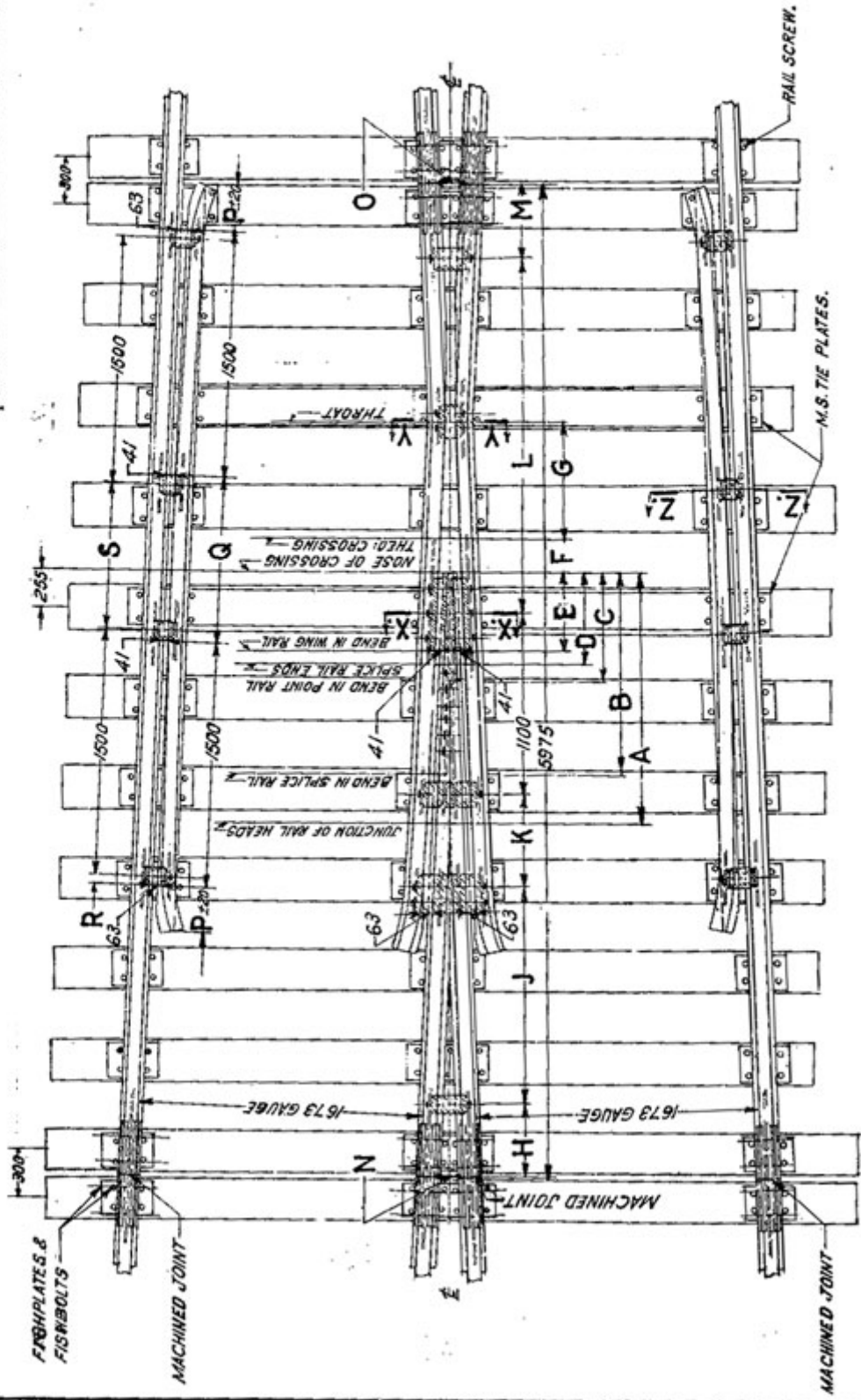
DETAIL OF NOSE OF CROSSING

SECTION ON Y.Y.

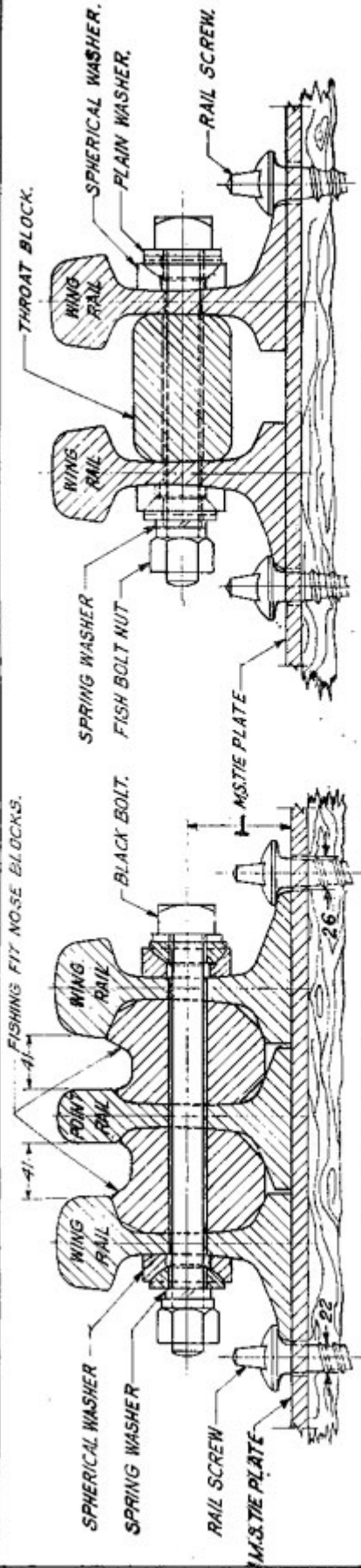
TABLE OF DIMENSIONS

RAIL ASSEMBLY SECTION <b>60R.</b>		DIMENSIONS (in mm)																					
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
DRAWING №	TA 20605	881	686	393	293	95	350	1370	510	1130	535	710	545	825	545	247	202	230	2255	165	1065	475	111

**TYPICAL 1 IN 12 CROSSING B.G.**

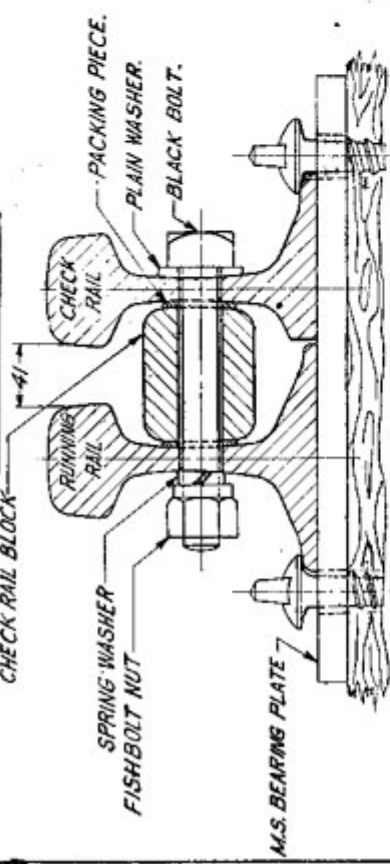


NOTE:- ALL M.S. FLAT BEARING PLATES ARE 220X20 THICK.

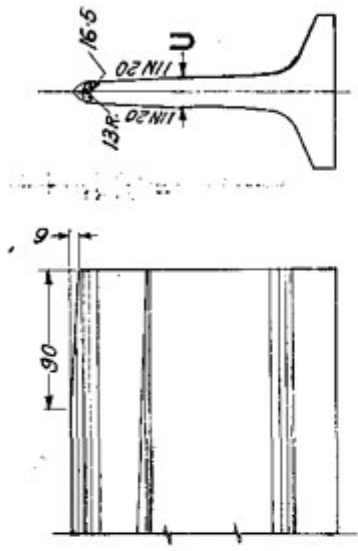


SECTION ON Y.Y.

SECTION ON X.X.



SECTION ON Z.Z.



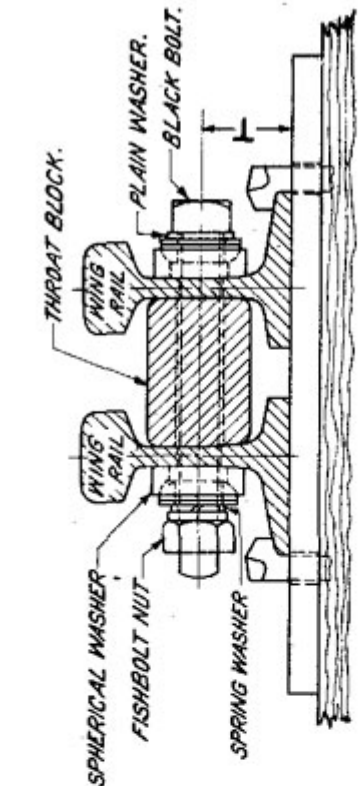
DETAIL OF NOSE OF CROSSING

TABLE OF DIMENSIONS

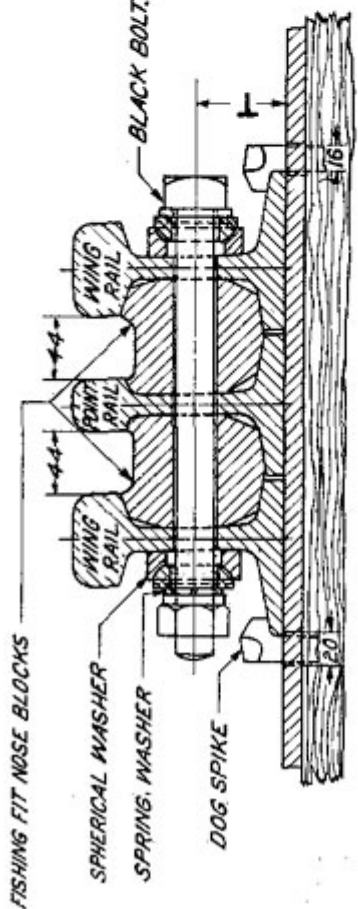
RAIL SECTION	ASSEMBLY DRAWING N <sup>o</sup>	DIMENSIONS (in mm)																			
		A	B	C	D	E	E	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
UIC 60Kg	RD5017-2580	1534	1236	668	568	430	198	697	397	1321	566	2155	437	174.5	178	250	1000	40	875	76.25	16.5



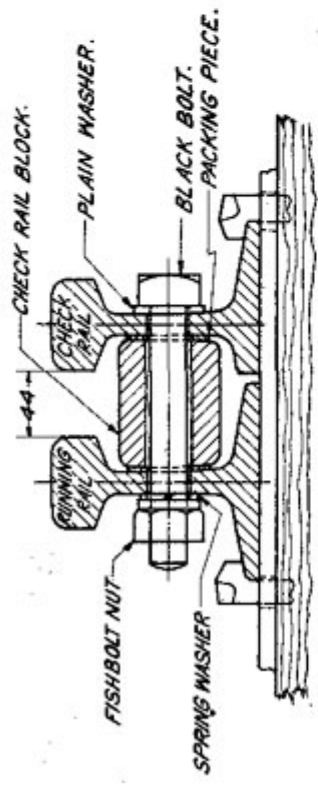




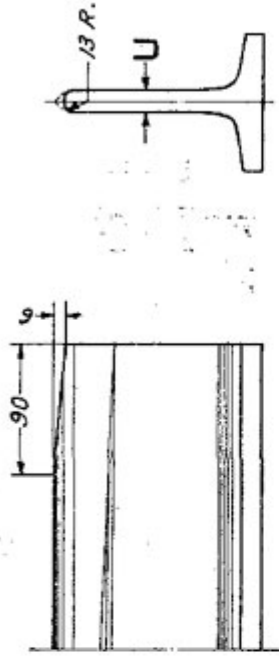
SECTION ON Y. Y.



SECTION ON X. X.



SECTION ON Z. Z.

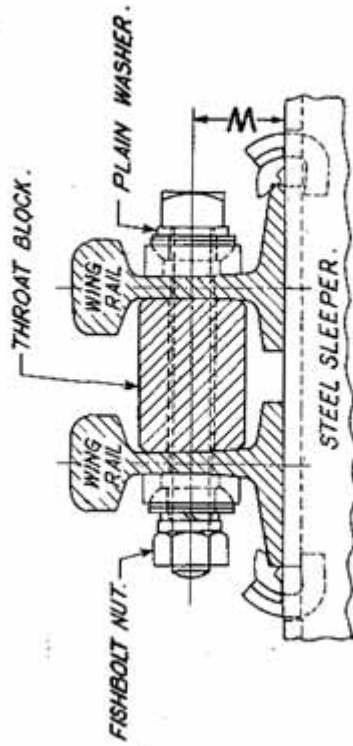


DETAIL OF NOSE OF CROSSING

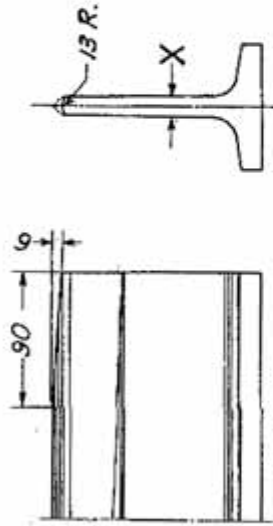
TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING N <sup>o</sup>	D I M E N S I O N S (mm)																			
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
52 kg	TA 5269 (M)	1426	1140	620	520	186	529	1610	1095	920	765	1565	1015	185	178	255	2235	140	1055	67	15.5
90 R.	TA 5271 (M)	1437	1170	635	535	167	529	1629	1065	950	765	1565	1015	184	180	255	2235	140	1055	60	13.9

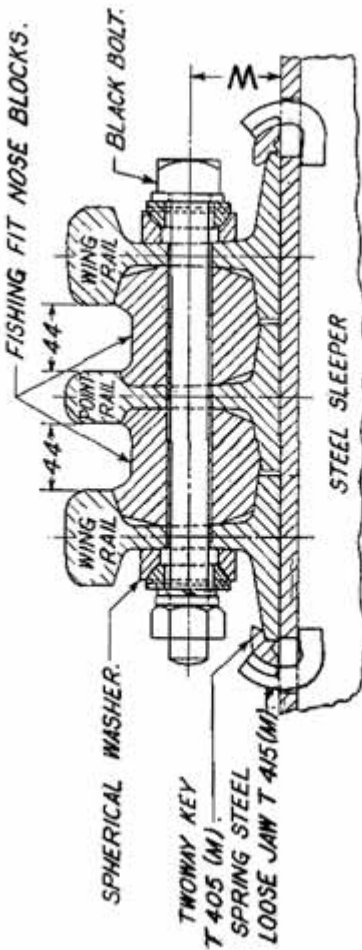




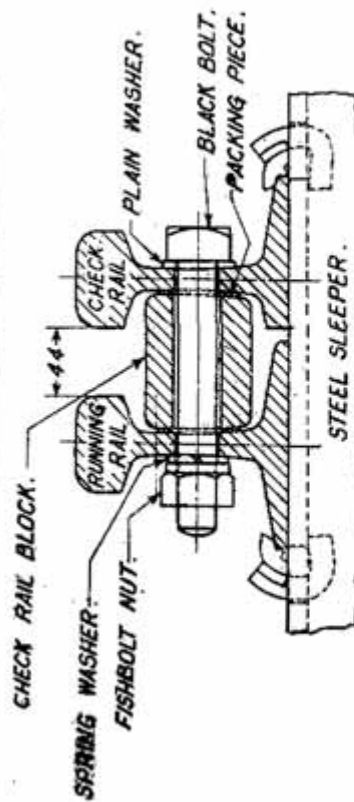
SECTION ON B.B.



DETAIL OF NOSE OF CROSSING



SECTION ON A.A.



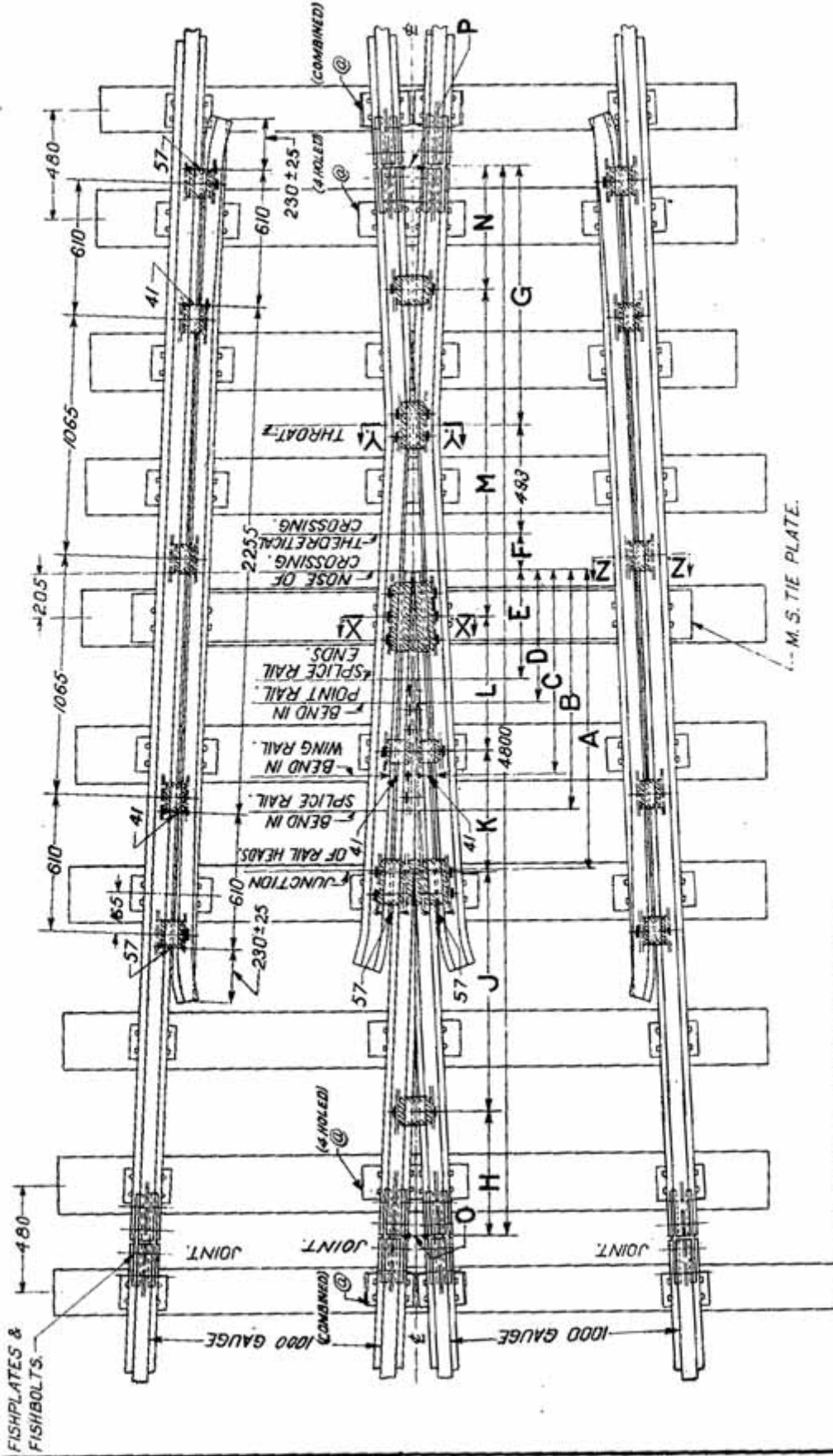
SECTION ON C.C.

TABLE OF DIMENSIONS

D I M E N S I O N S

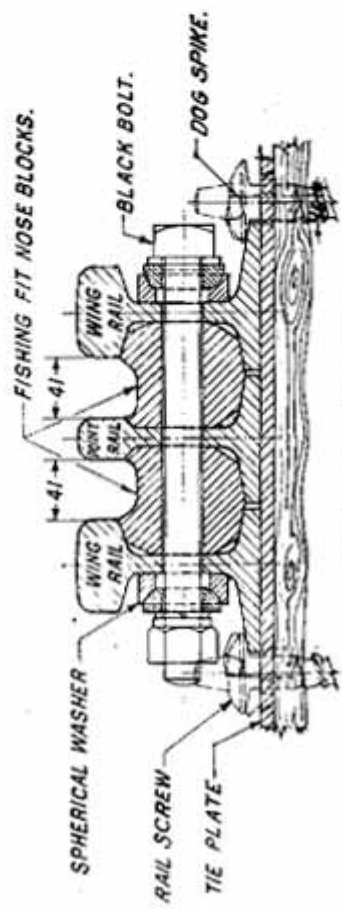
RAIL SECTION	ASSEMBLY DRAWING N <sup>o</sup>	D I M E N S I O N S																						
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
52 R	TA 20809	1426	1140	620	520	186	529	1610	960	575	920	765	970	595	580	985	185	178	255	2235	140	1055	67	15.5
90 R.	TA 20809	1437	1170	635	535	167	529	1629	775	650	950	755	951	614	650	775	184	180	255	2235	140	1055	60	13.9

TYPICAL 1 IN 12 CROSSING M.G.

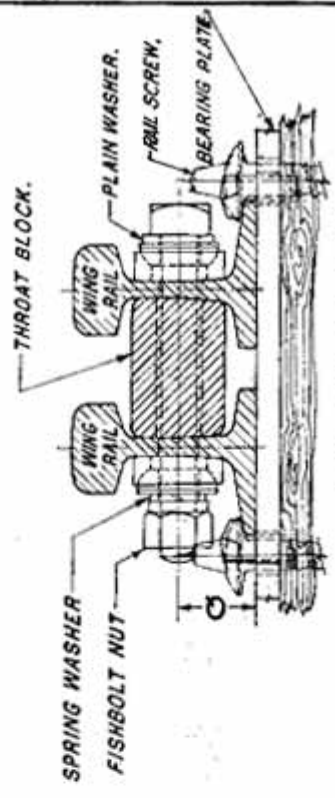


NOTE: 1. ALL M.S. FLAT BEARING PLATES 150x16 THICK.  
2. FOR TA 20496 ALL BEARING PLATES ARE WITH RAIL SCREENS AND ITS BEARING PLATES MARKED THUS... @ ARE 4 HOLED & COMBINED AS INDICATED.

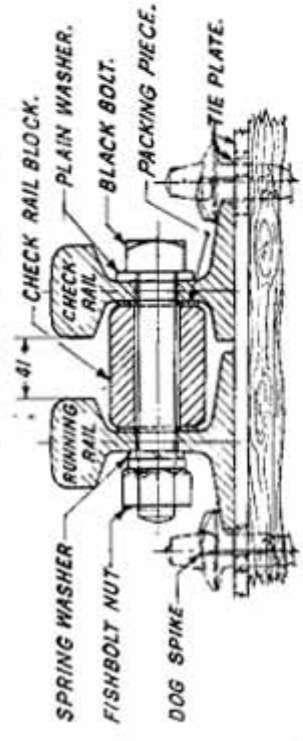




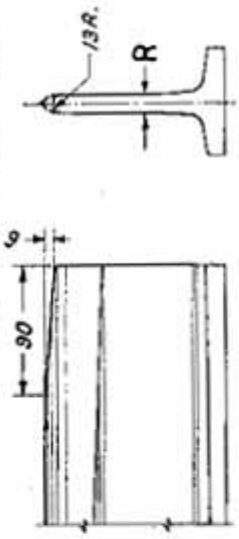
SECTION ON X.X.



SECTION ON Y.Y.



SECTION ON Z.Z.



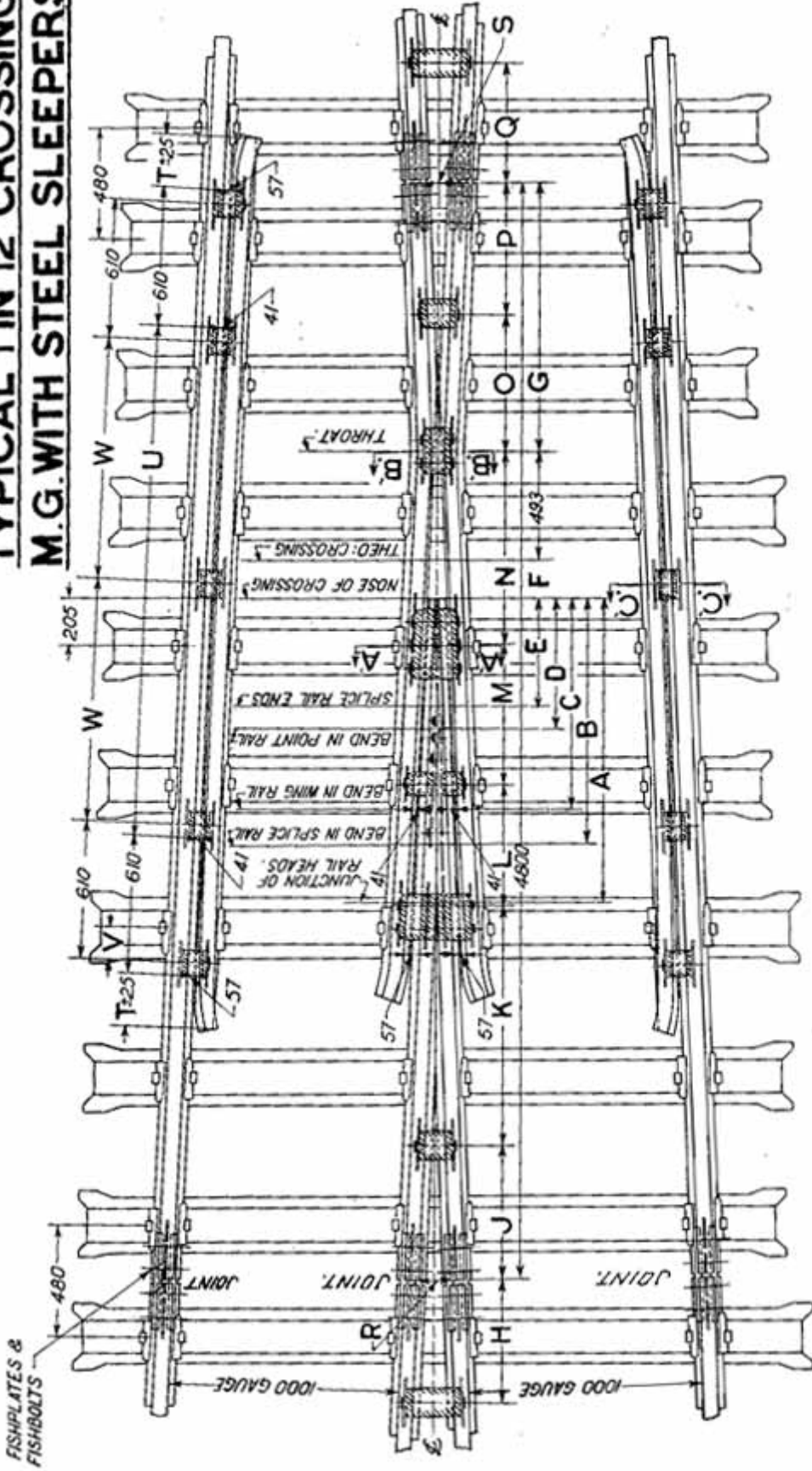
DETAIL OF NOSE OF CROSSING

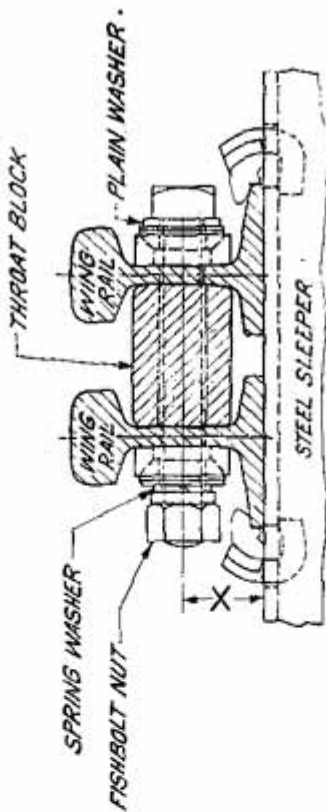
NOTE:-  
DOG SPIKES FOR TA 20-403  
& TA 20-412.  
RAIL SCREWS FOR TA 20-496.

TABLE OF DIMENSIONS

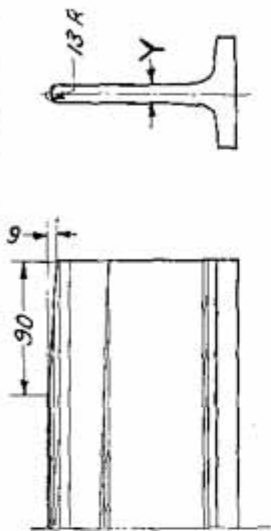
RAIL SECTION	ASSEMBLY DRAWING NO.	DIMENSIONS (mm)																
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
90 R.	TA 20-496	1437	1170	1015	635	535	167	1155	560	1035	530	660	1450	555	129	137	60	13-9
75R.	TA 20-403	1333	1076	915	589	488	157	1165	560	1080	535	610	1450	565	137.5	138	54	13-1
60R.	TA 20-412	1242	1008	915	554	464	134	1188	625	1015	535	610	1455	560	145	140	47.5	11-1

**TYPICAL 1 IN 12 CROSSING**  
**M.G. WITH STEEL SLEEPERS**

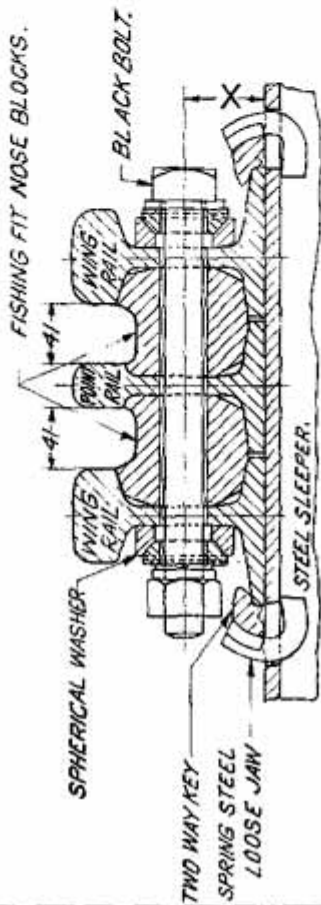




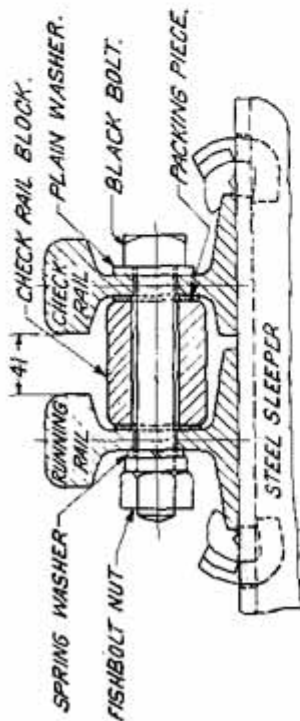
SECTION ON B.B.



DETAIL OF NOSE OF CROSSING



SECTION ON A.A.

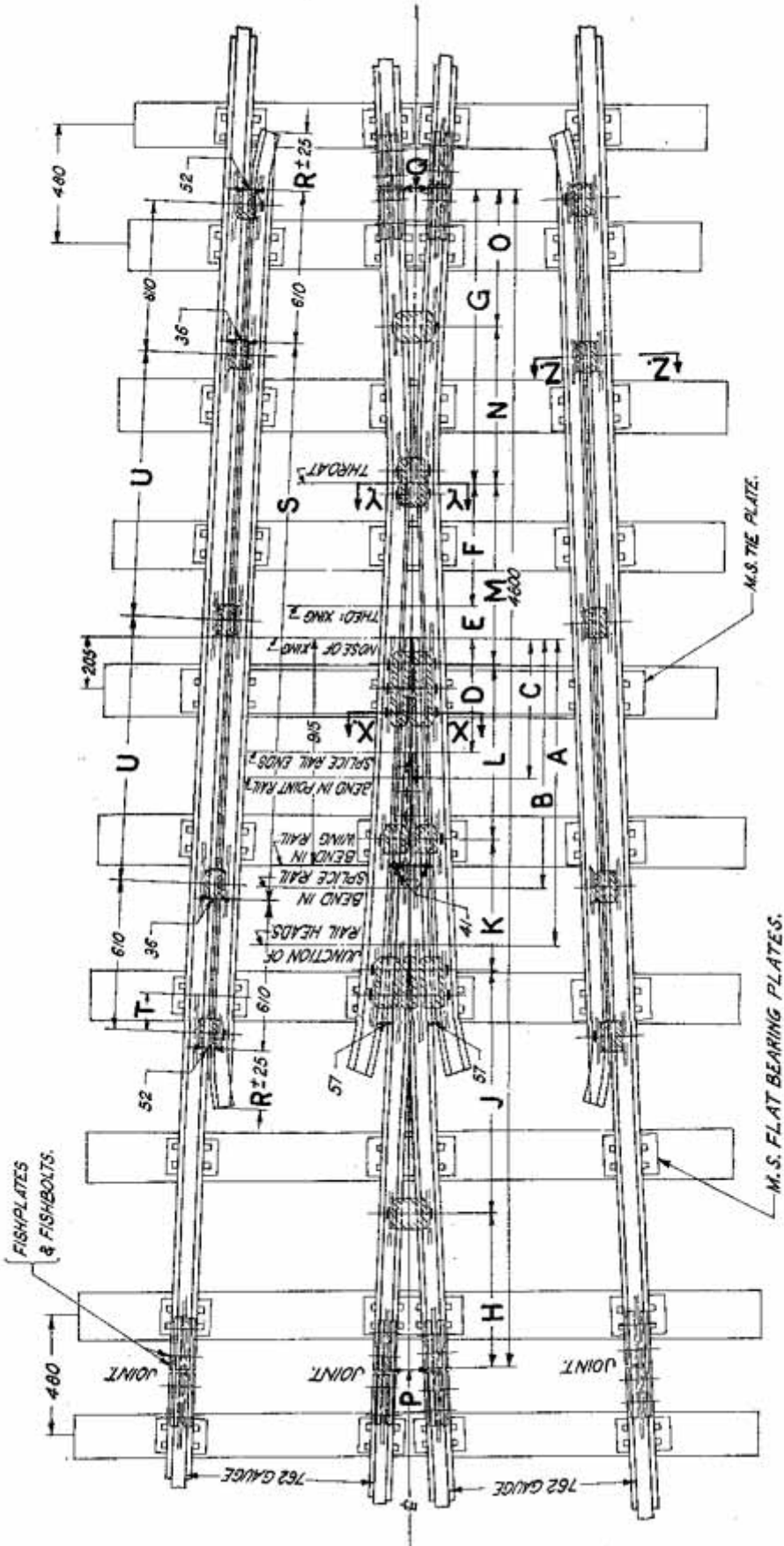


SECTION ON C.C.

TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING NO	DIMENSIONS (mm)																							
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
90 R.	TA 21024	1437	1170	1015	635	535	167	1155	540	560	1035	530	560	860	590	565	535	129	137	230	2255	165	1065	60	139
75 R.	TA 21003	1333	1076	915	588	488	157	1165	520	560	1080	535	610	850	600	565	515	137.5	138	230	2255	165	1065	54	131
60 B.	TA 21012	1242	1008	915	554	454	134	1188	475	625	1015	535	610	827	628	560	540	145	140	230	2255	165	1065	47.5	111

**TYPICAL 1 IN 12 CROSSING N. G.**



NOTE: ALL M.S. FLAT BEARING PLATES 150x16 THICK.

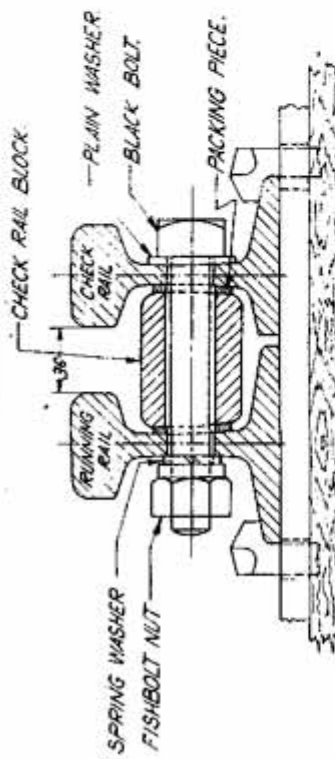
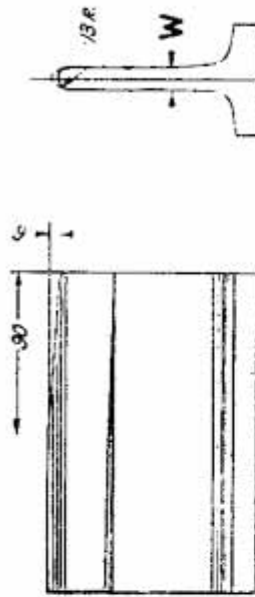
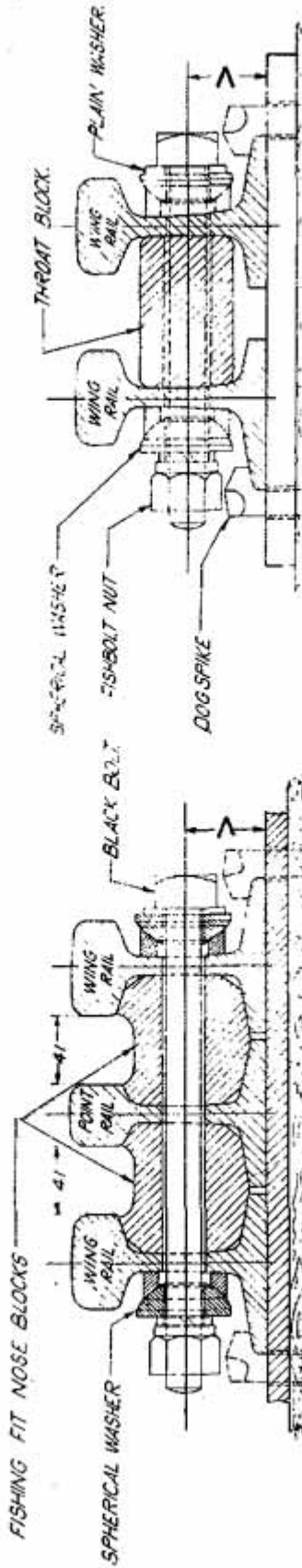


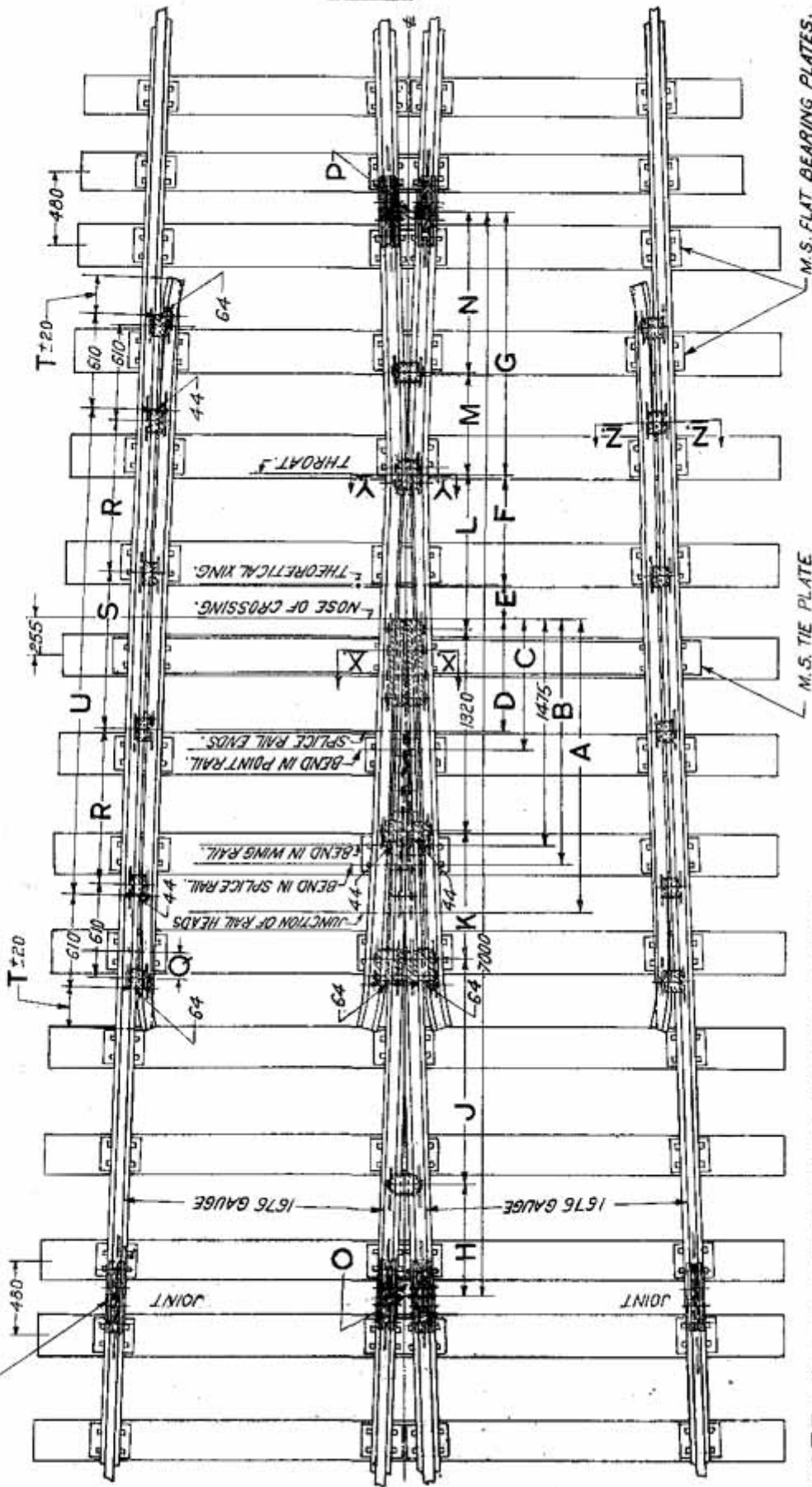
TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING NO.	DIMENSIONS (mm)																						
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
60R.	TA 20602	1 212	1 008	5 54	4 54	1 34	4 93	1 189	6 25	1 015	5 35	7 10	7 27	6 28	5 60	1 45	1 40	2 30	2 255	1 65	1 065	4 7.5	1 11	

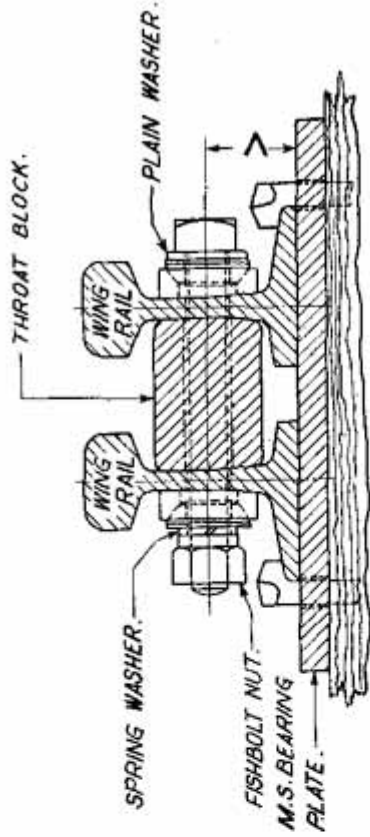


# TYPICAL I IN 16 CROSSING B. G.

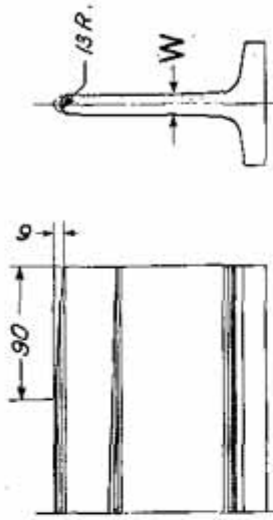
FISHPLATES & FISHBOLTS



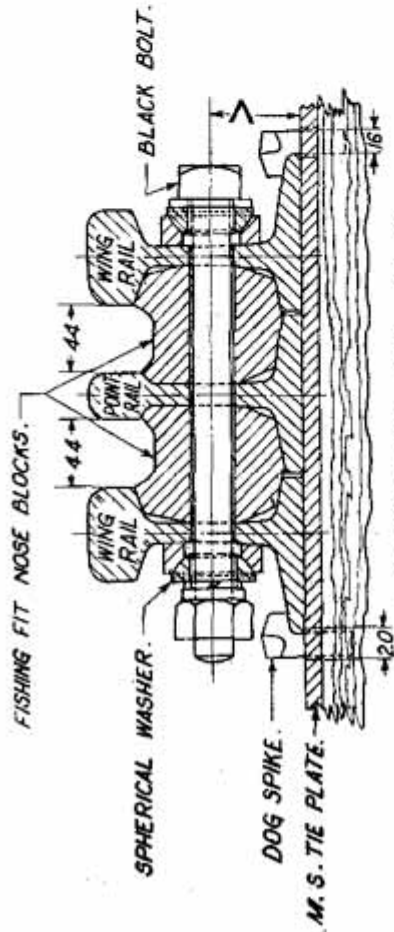
NOTE :- ALL M.S. FLAT BEARING PLATES 220x20 THICK.



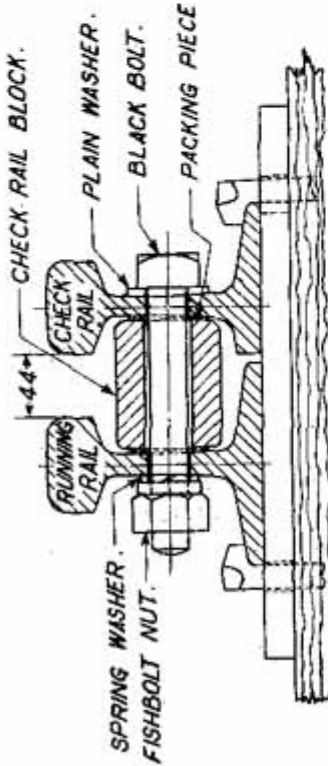
SECTION ON Y. Y.



DETAIL OF NOSE OF CROSSING



SECTION ON X. X.

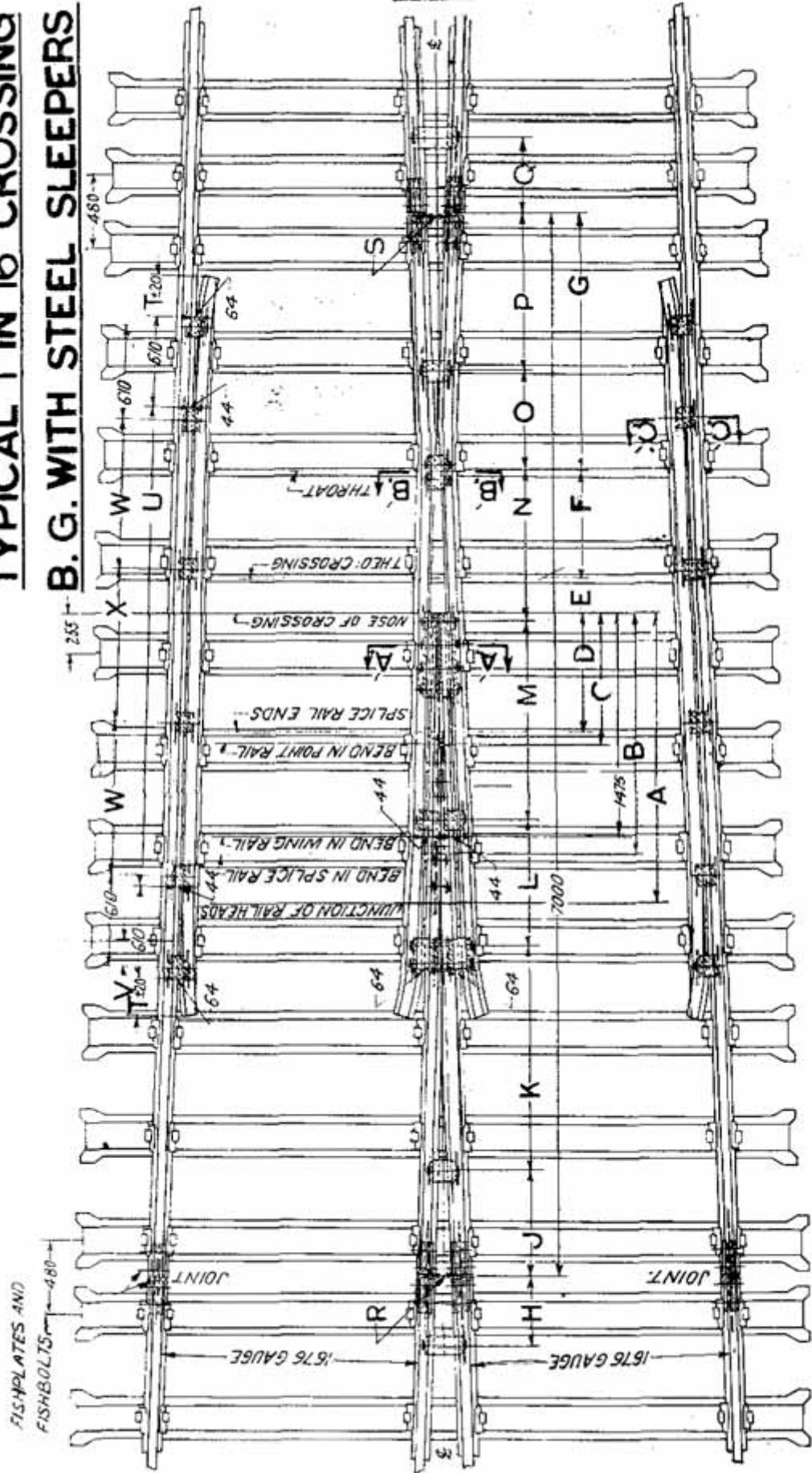


SECTION ON Z. Z.

TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING NR	D I M E N S I O N S																						
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
52 kg	TA 20142	1899	825	725	248	705	1692	675	1470	840	1003	647	1045	153.5	150	140	1005	1015	255	3150	67	15.5		
90 R	TA 20140	1914	846	746	222	705	1718	675	1470	840	977	673	1045	152.5	151.5	140	1005	1015	255	3150	60	13.9		

**TYPICAL 1 IN 16 CROSSING**  
**B. G. WITH STEEL SLEEPERS**



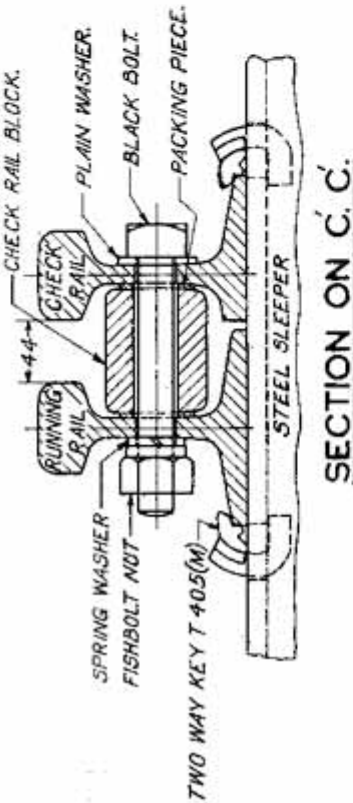
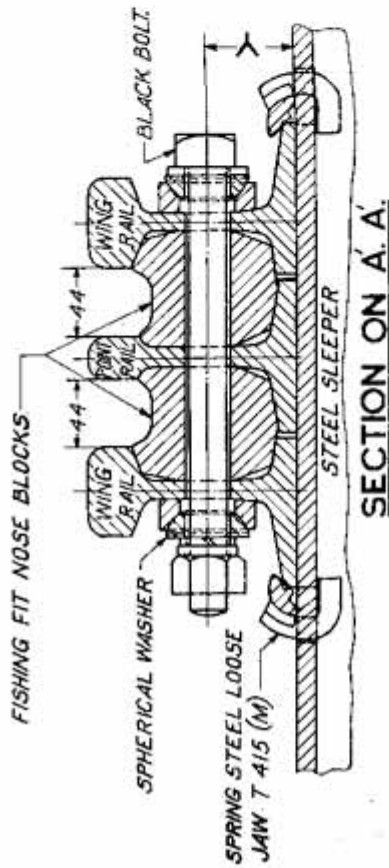
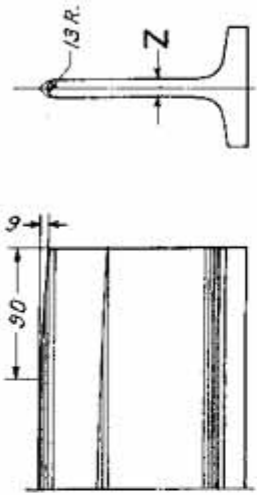
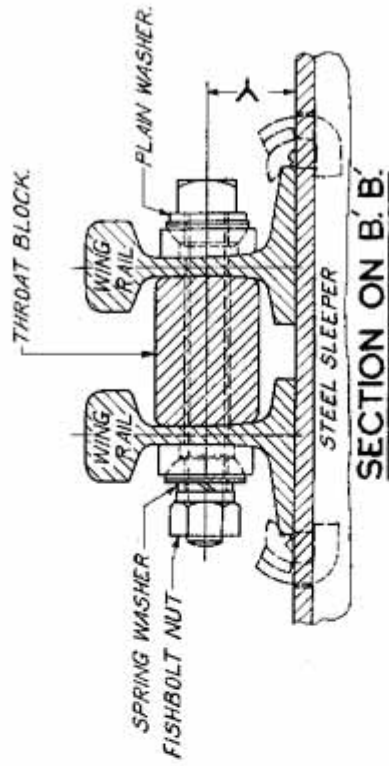
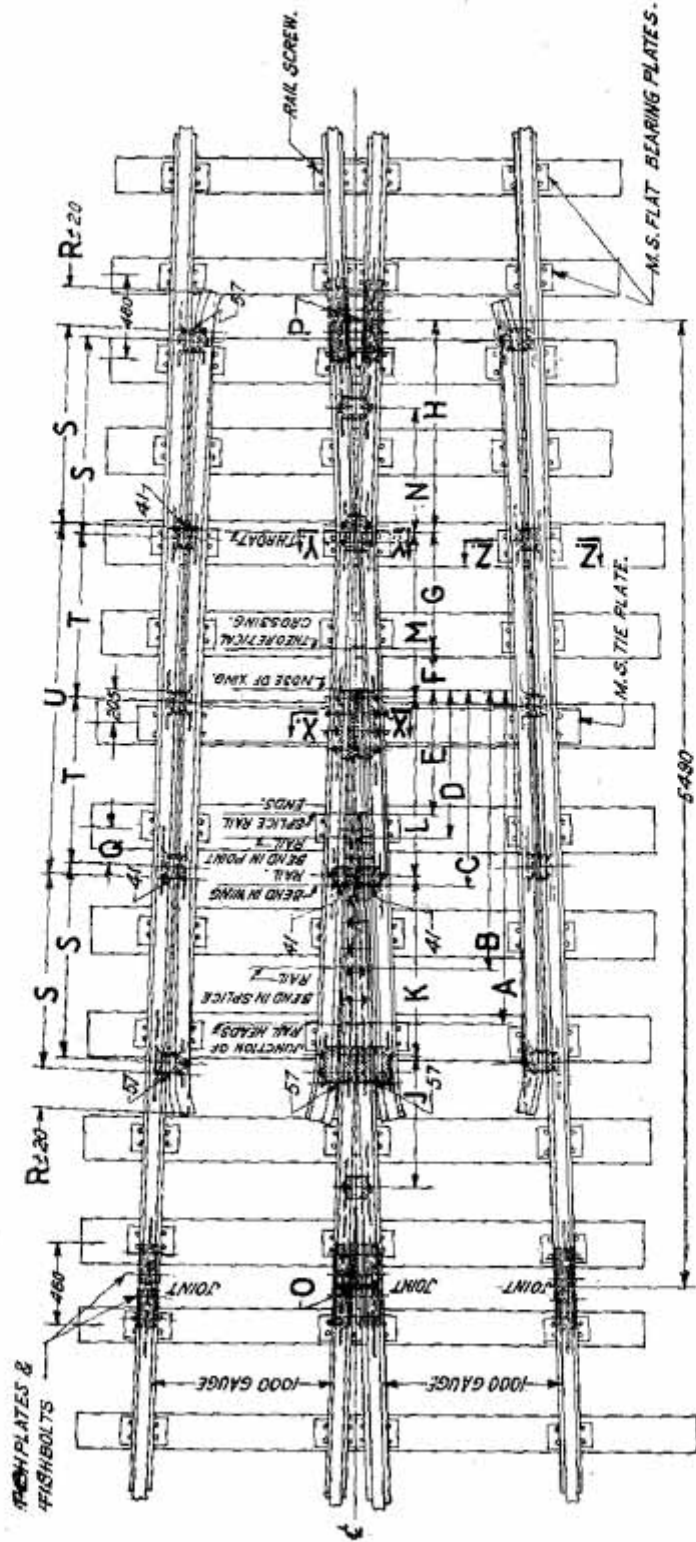


TABLE OF DIMENSIONS

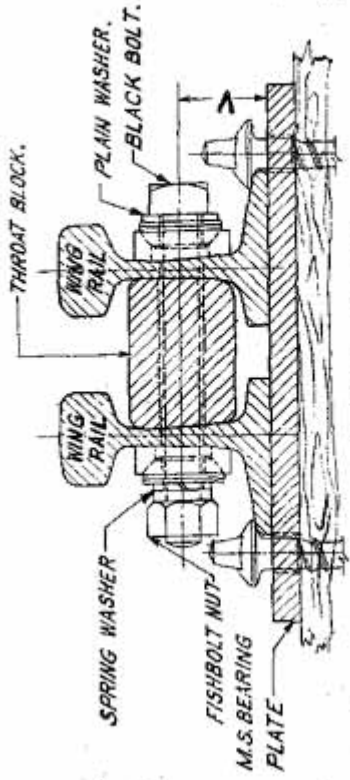
RAIL ASSEMBLY SECTION DRAWING NO.		DIMENSIONS (in mm)																									
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
52 kg	TA 20830	1899	1551	825	725	248	705	1692	560	675	1470	840	1320	1003	697	1045	620	153-5	150	255	3150	140	1005	1015	67	15-5	
90 R.	TA 20815	1914	1592	846	746	222	705	1718	460	675	1470	840	1320	977	673	1045	500	152-5	151-5	255	3150	140	1005	1015	60	13-9	

TYPICAL 1 IN 16 CROSSING M.G.

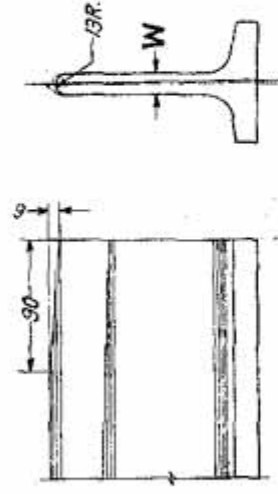


NOTE :- ALL M.S. FLAT BEARING PLATES 150X16 THICK.

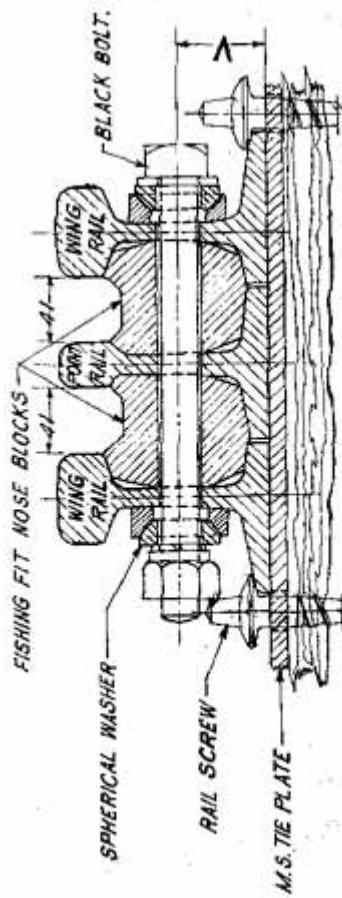




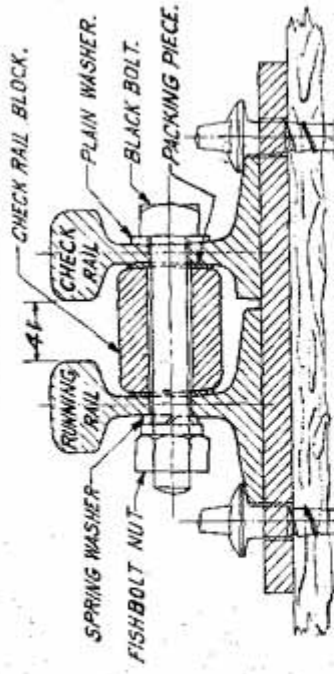
SECTION ON Y.Y.



DETAIL OF NOSE OF CROSSING



SECTION ON X.X.

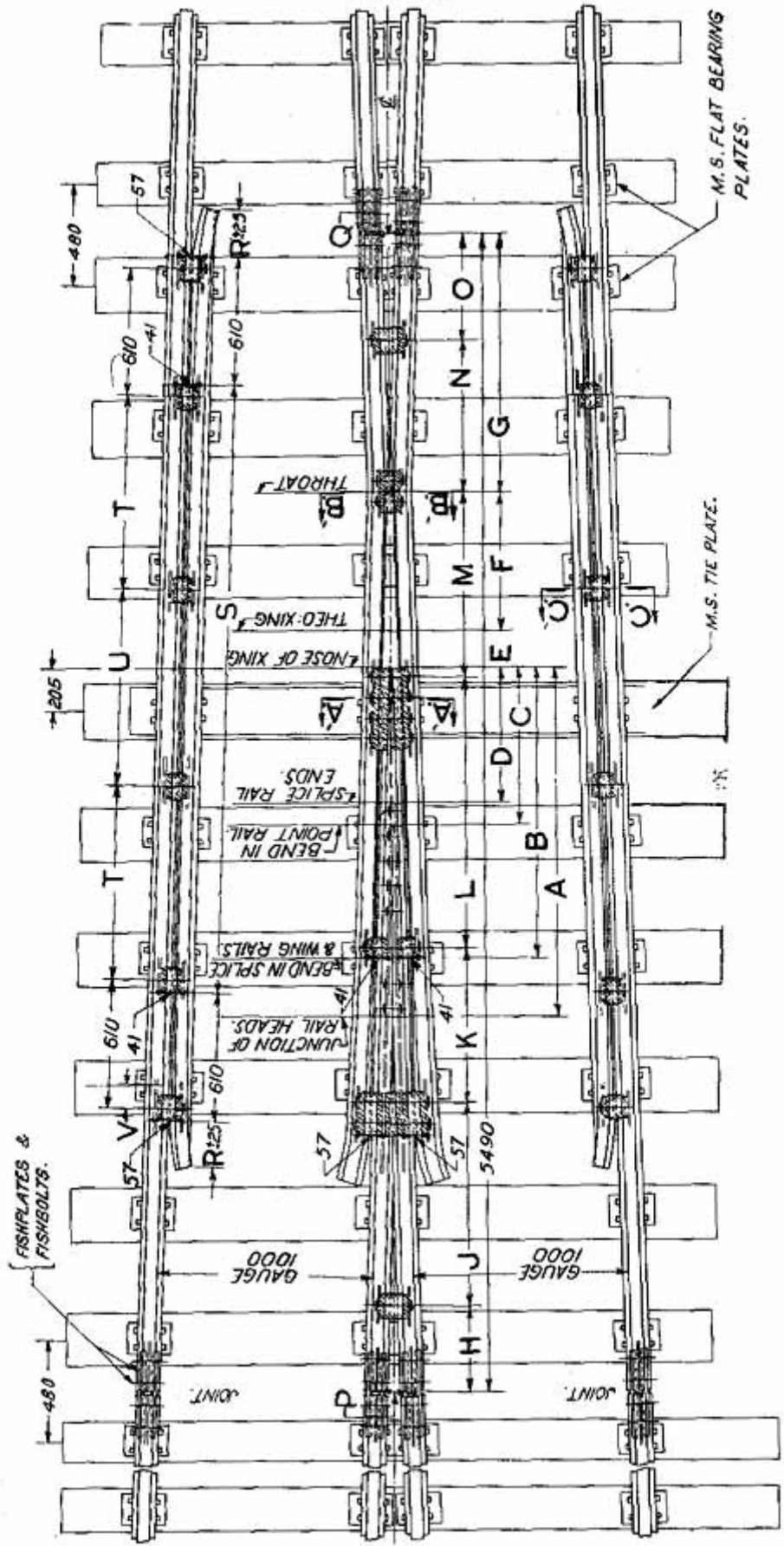


SECTION ON Z.Z.

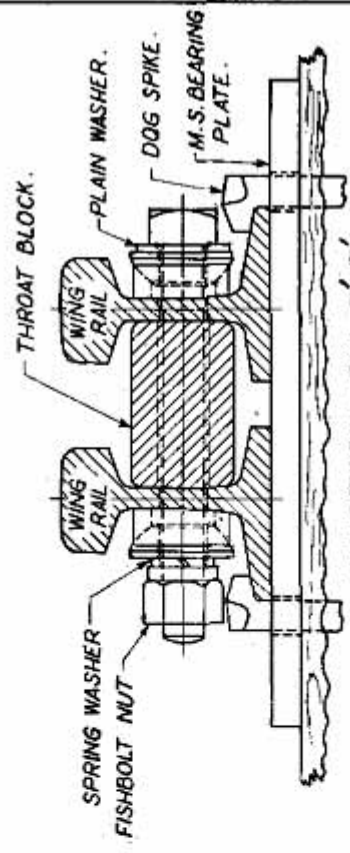
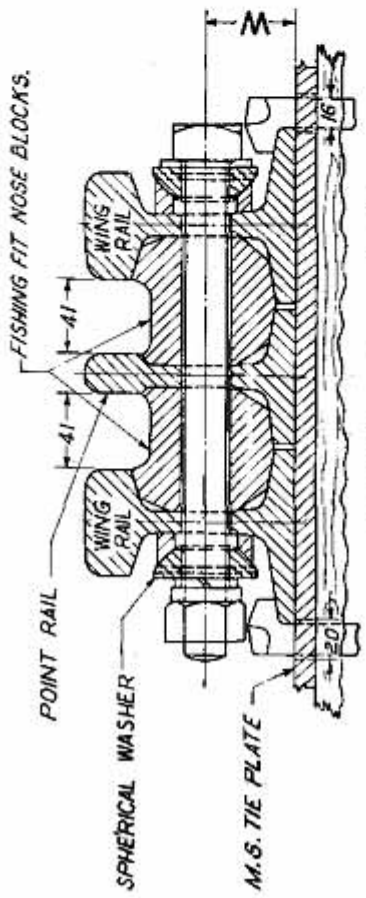
TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRAWING	DIMENSIONS (mm)																					
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
90 R.	7A20506	19 1/4	169 1/2	1120	846	746	222	657	1215	750	1020	1020	929	721	925	117	220	230	1120	935	2000	60	139

**TYPICAL 1 IN 16 CROSSING M. G.**

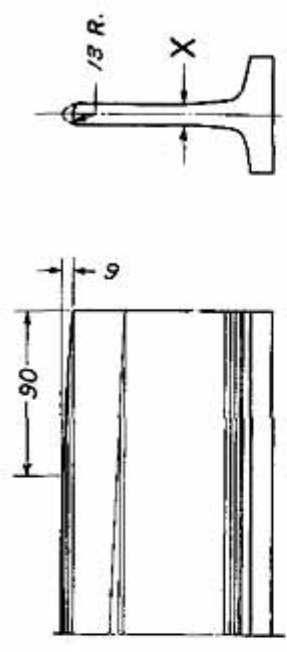
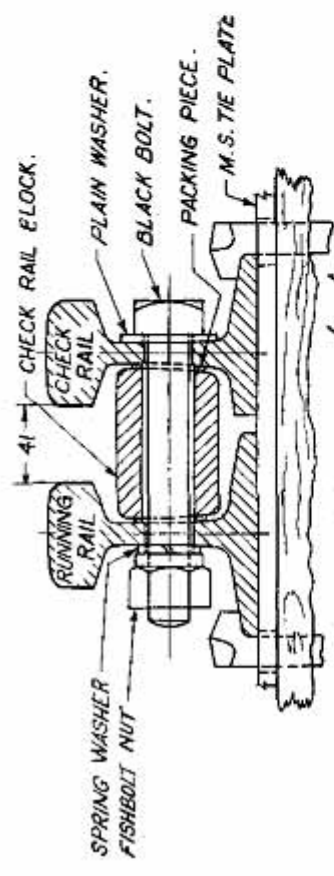


**NOTE:** ALL M.S. FLAT BEARING PLATES 150x16 THICK.



SECTION ON A.A.

SECTION ON B.B.



DETAIL OF NOSE OF CROSSING

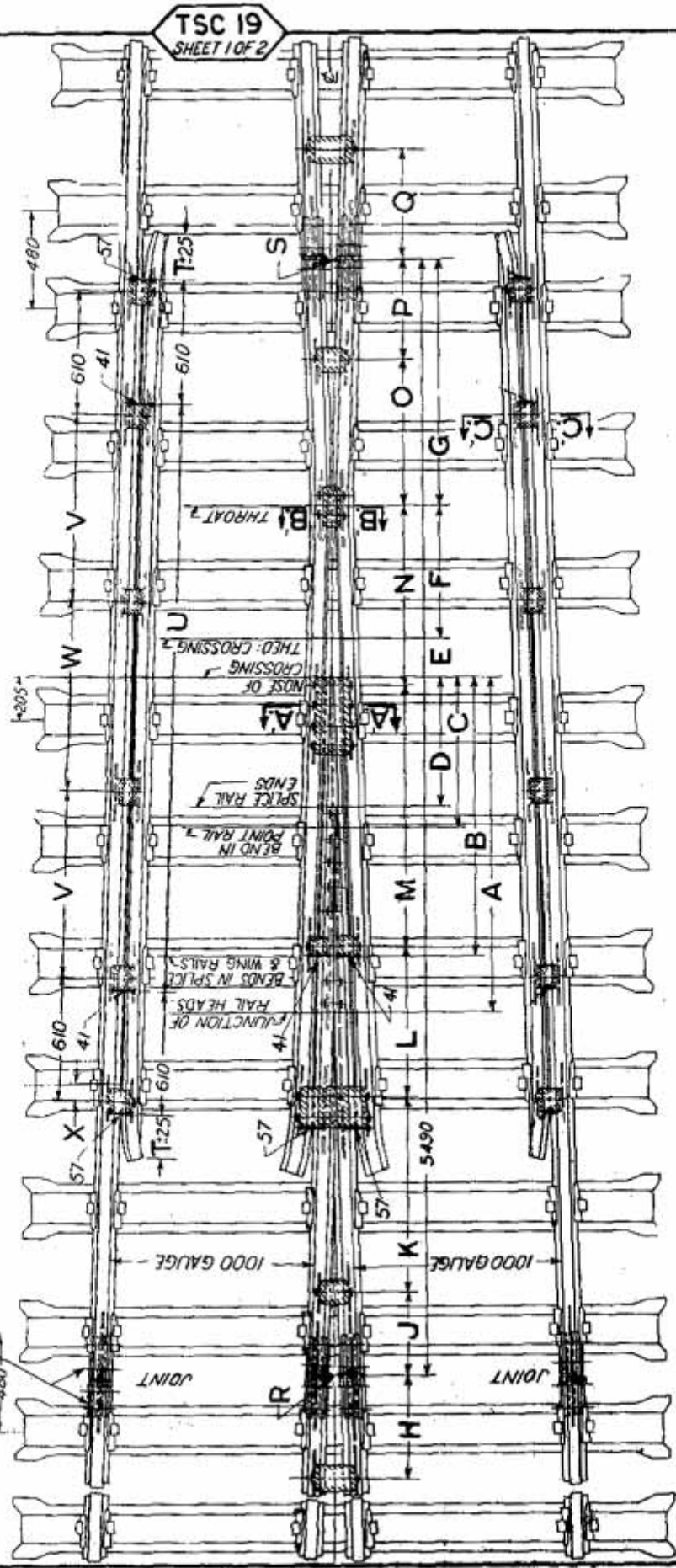
TABLE OF DIMENSIONS

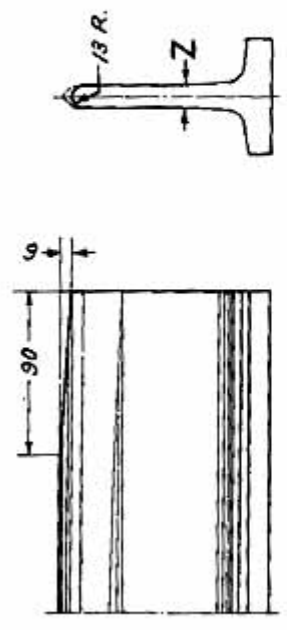
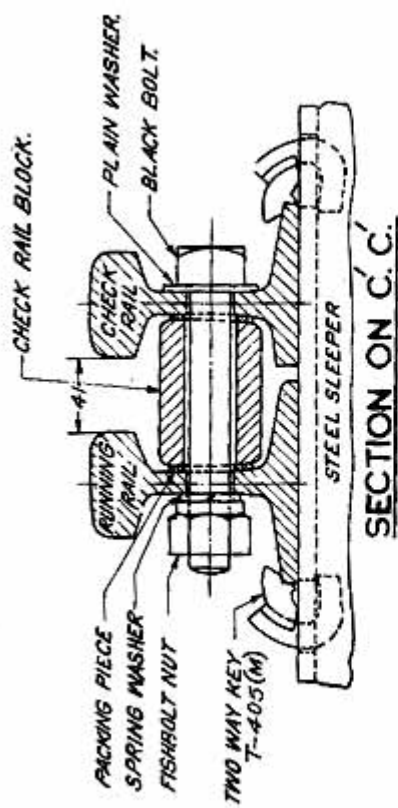
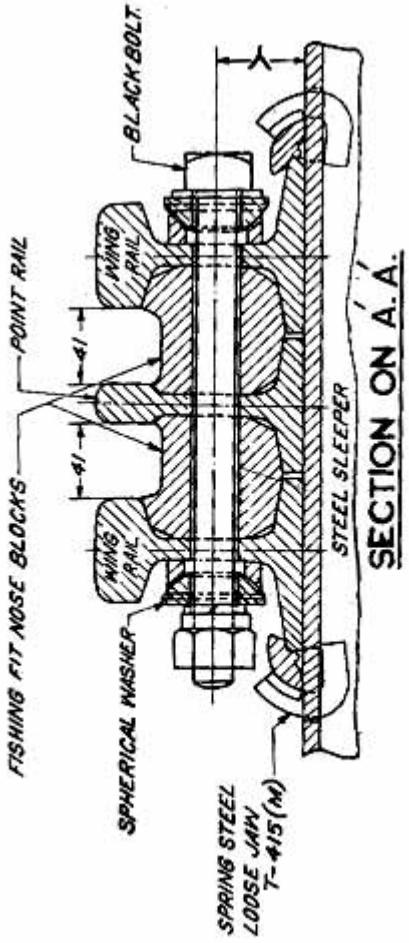
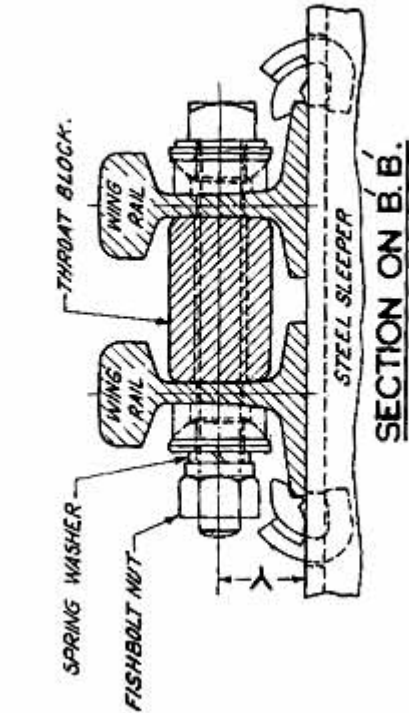
RAIL SECTION	ASSEMBLY DRAWING No	DIMENSIONS (in mm)																							
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
60 R.	TA 20415	1654	1376	738	638	178	657	1215	409	365	740	1276	885	720	495	112	117	230	2890	915	935	100	47.5	47.5	11.1

# TYPICAL 1 IN 16 CROSSING M.G. WITH STEEL SLEEPERS

TSC 19  
SHEET 1 OF 2

FISHPLATES &  
FISHBOLTS





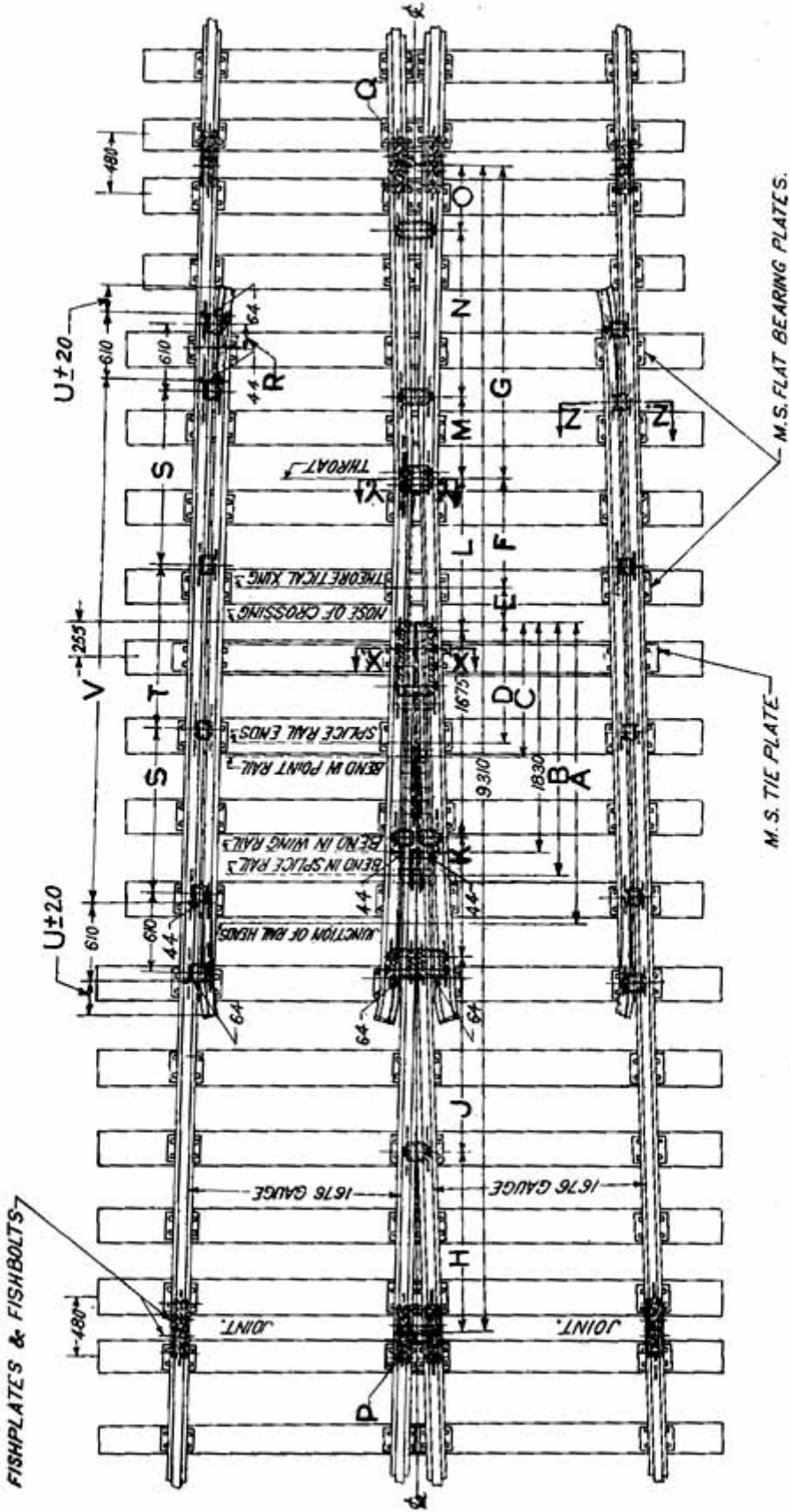
DETAIL OF NOSE OF CROSSING

TABLE OF DIMENSIONS

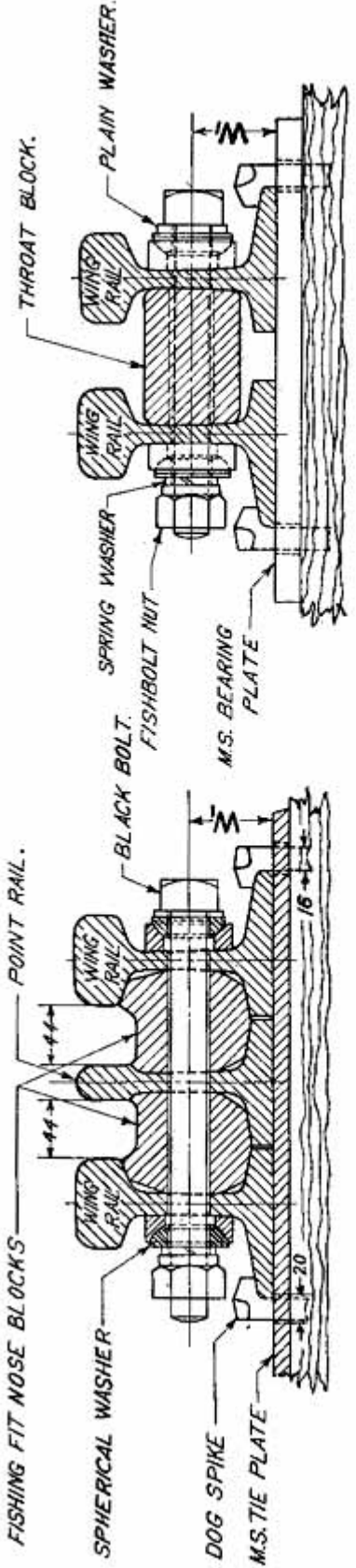
RAIL SECTION	ASSEMBLY DRAWING NO	DIMENSIONS (mm)																								
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
60 R	TA 21015	1654	1376	738	638	178	657	1215	610	409	965	740	1276	885	720	495	530	112	117	230	2890	915	935	100	475	111



**TYPICAL I IN 20 CROSSING B.G.**

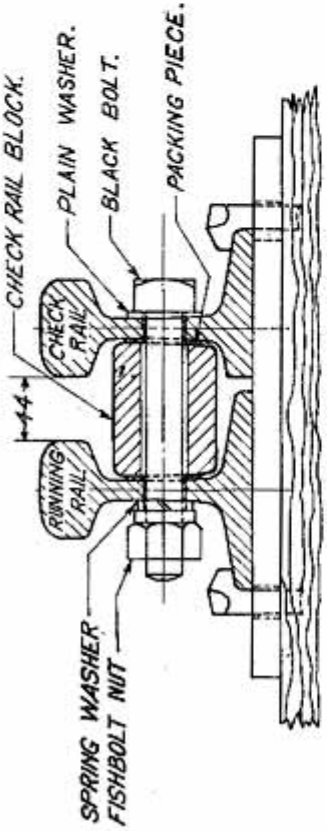


NOTE:-ALL M.S. FLAT BEARING PLATES 220 X 20 THICK.

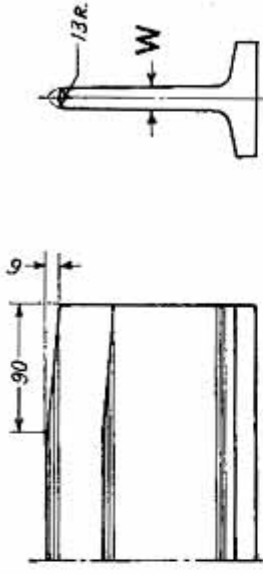


**SECTION ON X.X.**

**SECTION ON Y.Y.**



**SECTION ON Z.Z.**



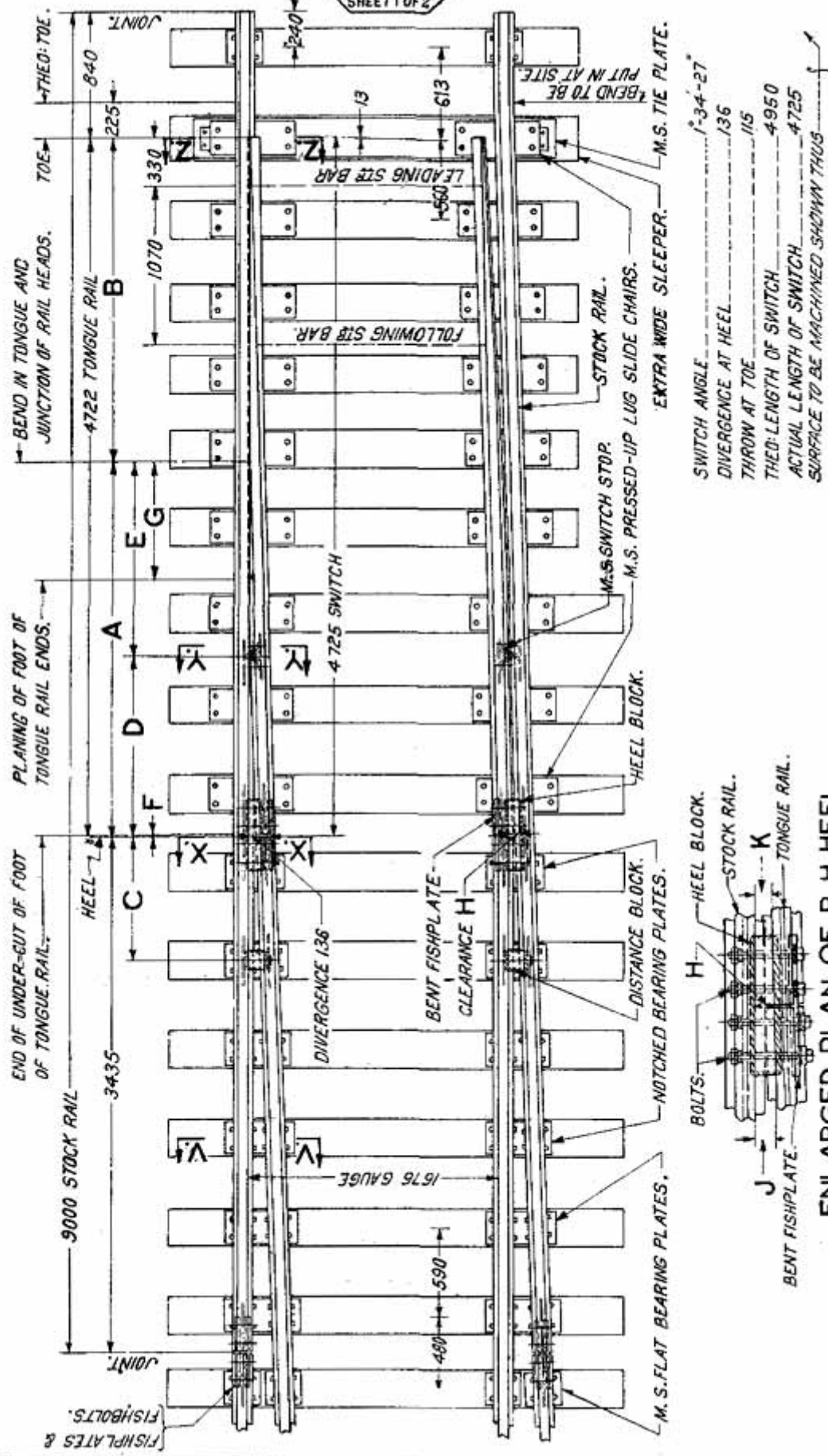
**DETAIL OF NOSE OF CROSSING.**

**TABLE OF DIMENSIONS.**

RAIL ASSEMBLY SECTION DRAWING N <sup>o</sup>	D I M E N S I O N S (m.m)											W <sub>1</sub>											
	A	B	C	D	E	F	G	H	J	K	L		M	N	O	P	Q	R	S	T	U	V	W
<b>90R.</b> TA 20124	2392	2014	1057	957	278	881	2501	1360	1550	1015	1209	646	1310	545	163	169	165	1310	1315	255	4060	13-9	60

# TYPICAL SHORT SWITCH B. G.

TSC 21  
SHEET 1 OF 2



SWITCH ANGLE.....1-34-27  
 DIVERGENCE AT HEEL.....136  
 THROW AT TOE.....115  
 THROW AT TOE.....4950  
 ACTUAL LENGTH OF SWITCH.....4725  
 SURFACE TO BE MACHINED SHOWN THUS

ENLARGED PLAN OF R. H. HEEL

M.S. SWITCH STOP.

NOTE—  
THE DIFFERENCE OF 6 mm IN  
THE RELATIVE LEVEL OF THE  
TABLES OF STOCK & TONGUE  
RAILS IS RUN OUT GRADUALLY  
AS INDICATED IN THE SECTIONS.

NOTE—  
DIFFERENCE  
IN LEVEL IS

LEAD RAIL  
STOCK RAIL

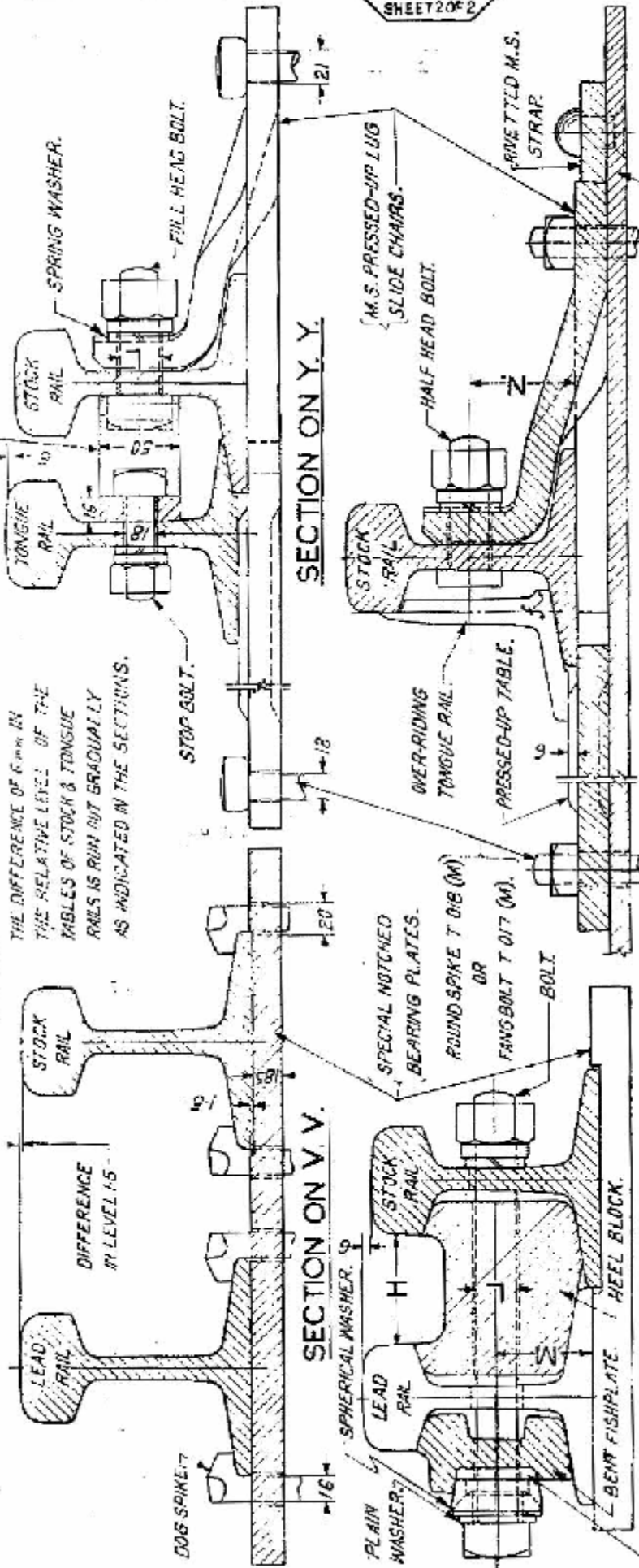


TABLE OF DIMENSIONS

D I M E N S I O N S  
(mm)

RAIL ASSEMBLY SECTION DRAWING NO.	A	B	C	D	E	F	G	H	J	K	L	M	N
52 Kg TA 20105	2510	2215	830	1165	1345	3	1637	69	775	60.5	25	67	73
90 R TA 2012	2523	2202	650	1223	1300	3	798	69.3	76	63	25	60	65

PACKING  
PIECE.

BENT FISHPLATE.

HEEL BLOCK.

BOLT.

OR  
ROUND SPIKE T 016 (M).

OR  
FANG BOLT T 017 (M).

PRESSED-UP TABLE.

OVER-RIDING  
TONGUE RAIL.

HALF HEAD BOLT.

M.S. PRESSED-UP LUG  
SLIDE CHAIRS.

RIVETTED M.S.  
STRAP.

M.S. TIE PLATE.

SPHERICAL WASHER.

PLAIN  
WASHER.

LEAD RAIL

STOCK RAIL

SPRING WASHER.

STOP BOLT.

DOE SPIKE

STOP BOLT.

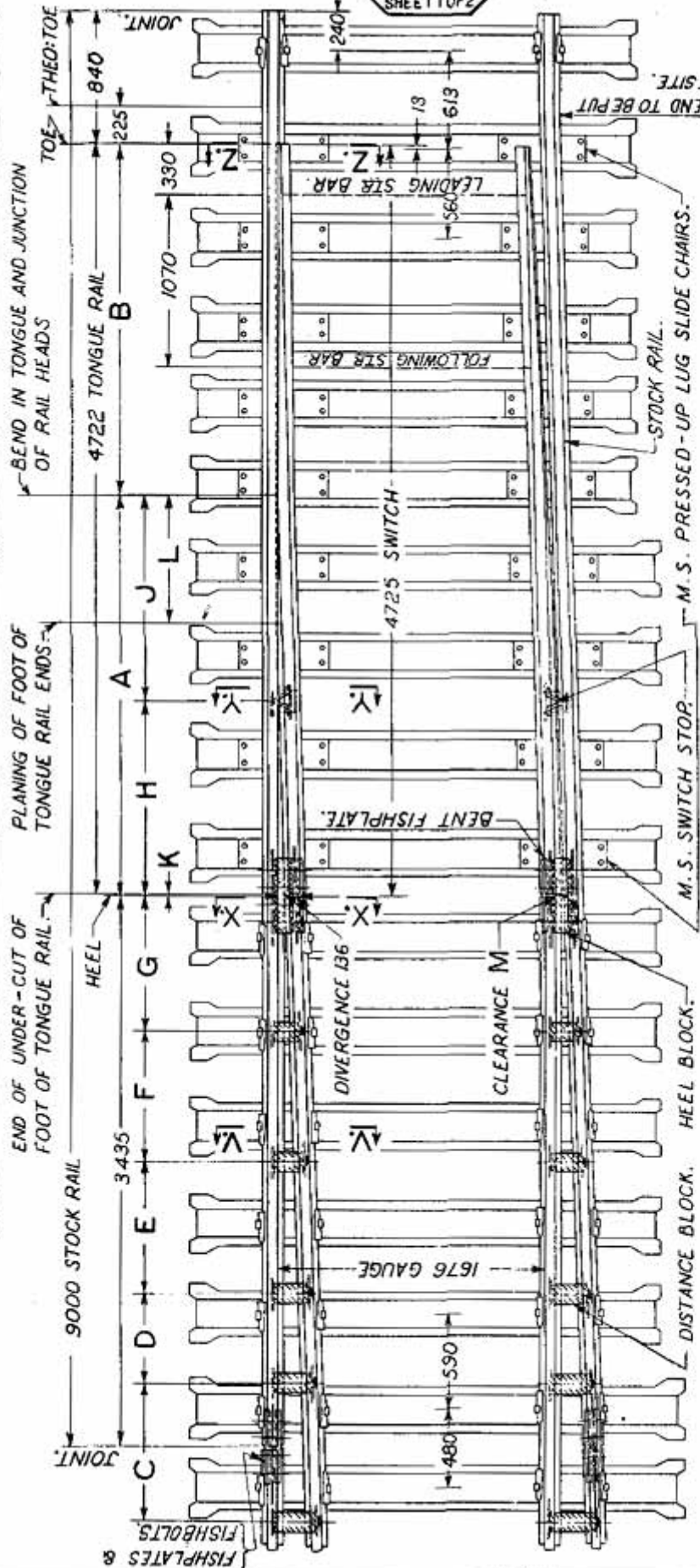
STOP BOLT.

STOP BOLT.

STOP BOLT.

STOP BOLT.

# TYPICAL SHORT SWITCH B.G. WITH STEEL SLEEPERS.



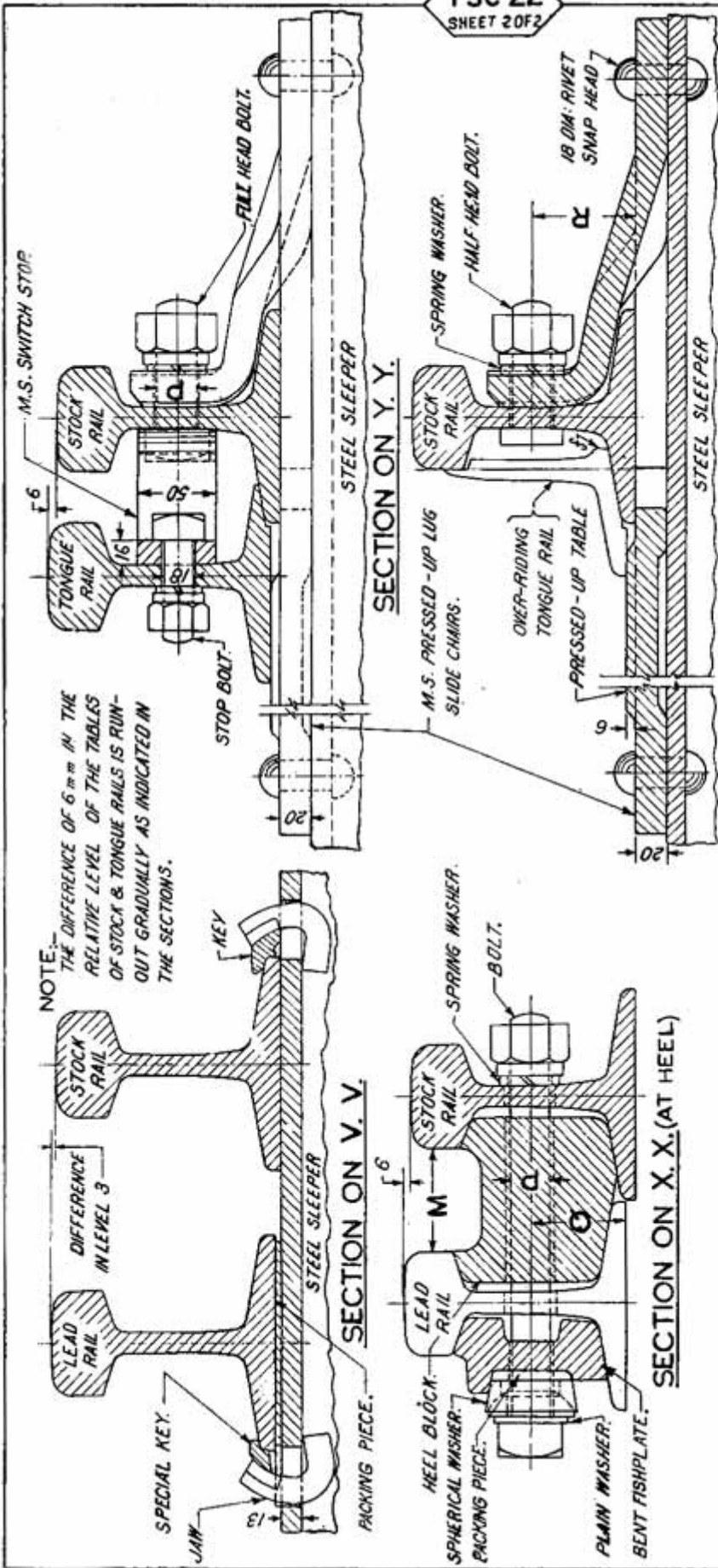
SWITCH ANGLE	1° 34' - 27"
DIVERGENCE AT HEEL	136
THROW AT TOE	115
THEO: LENGTH OF SWITCH	4950
ACTUAL LENGTH OF SWITCH	4725

SURFACE TO BE MACHINED SHOWN THUS



ENLARGED PLAN OF R. H. HEEL





NOTE: THE DIFFERENCE OF 6 mm IN THE RELATIVE LEVEL OF THE TABLES OF STOCK & TONGUE RAILS IS RUN-OUT GRADUALLY AS INDICATED IN THE SECTIONS.

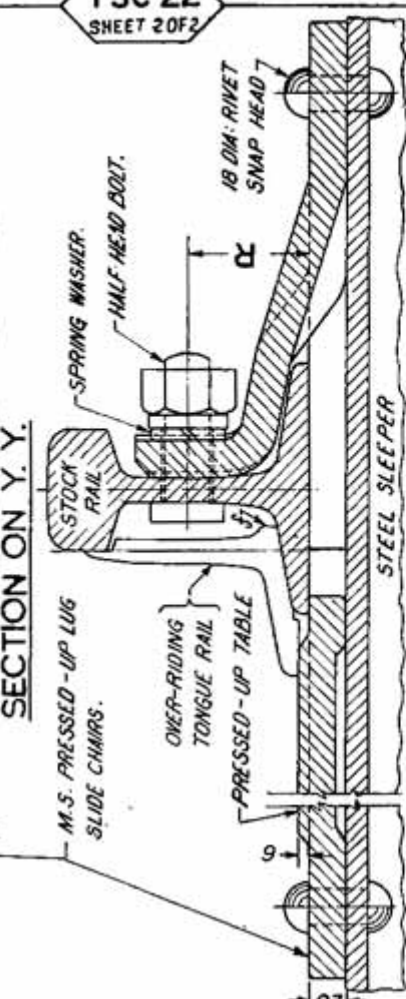
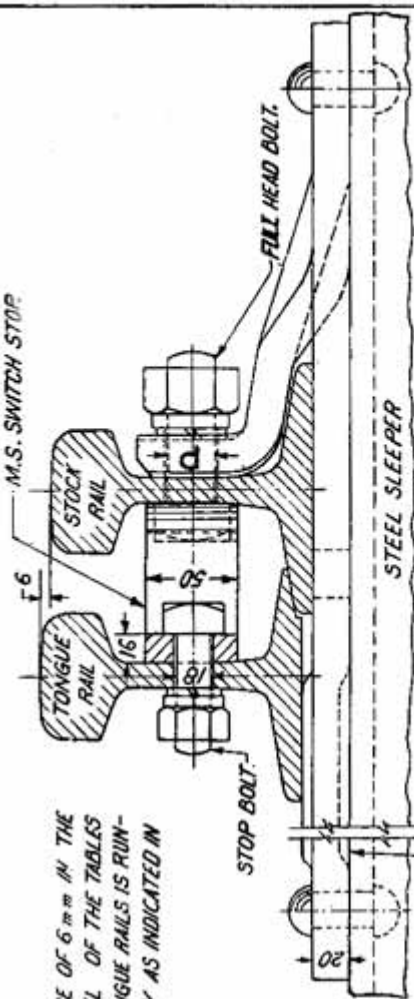
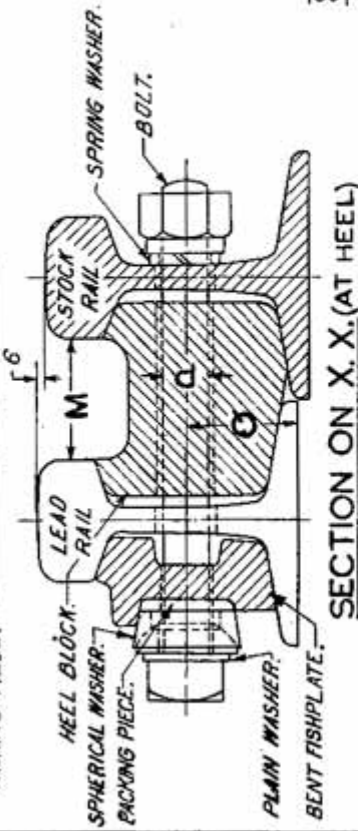
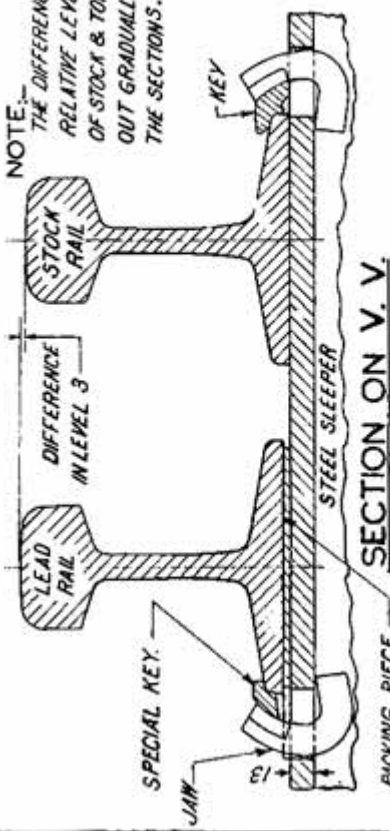
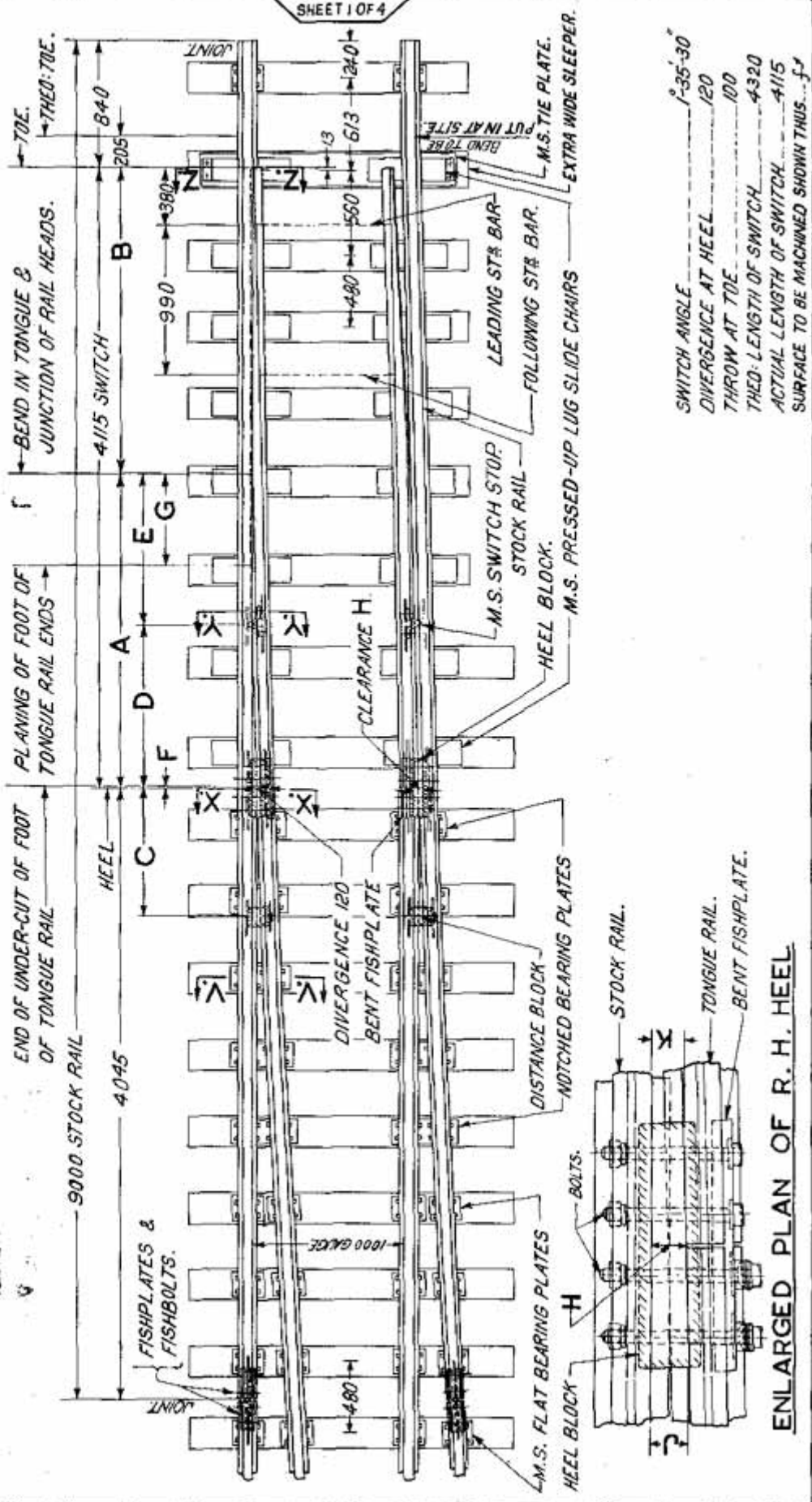


TABLE OF DIMENSIONS

DIMENSIONS (mm)

RAIL SECTION	ASSEMBLY DRAWING NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
52 Kg	TA 20805	2510	2215	850	580	820	780	830	1165	1345	3	1637	69	77.5	60.5	25	67	73
90 R.	TA 20811	2523	2202	805	610	820	810	850	1223	1300	3	798	69.3	76	63	25	60	66

# TYPICAL SHORT SWITCH M. G.



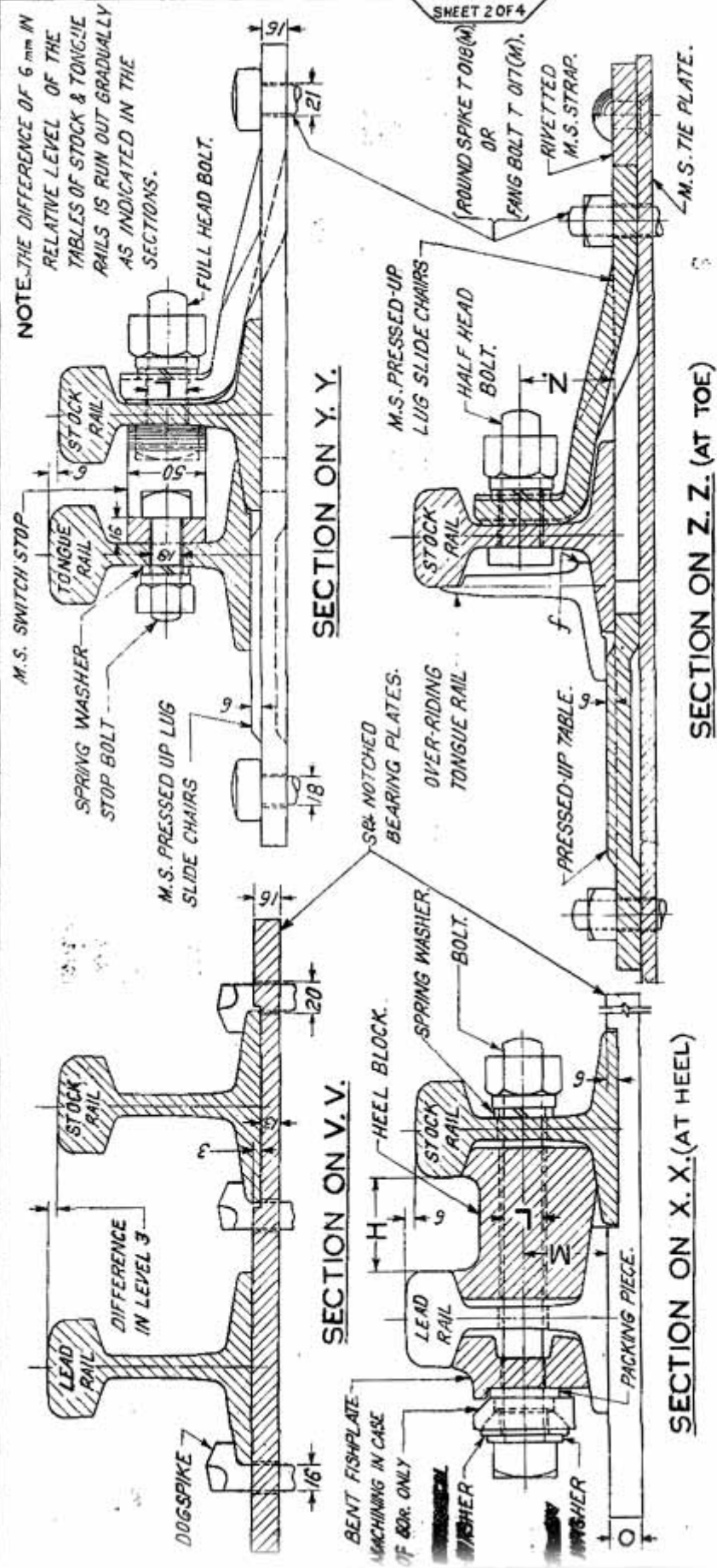
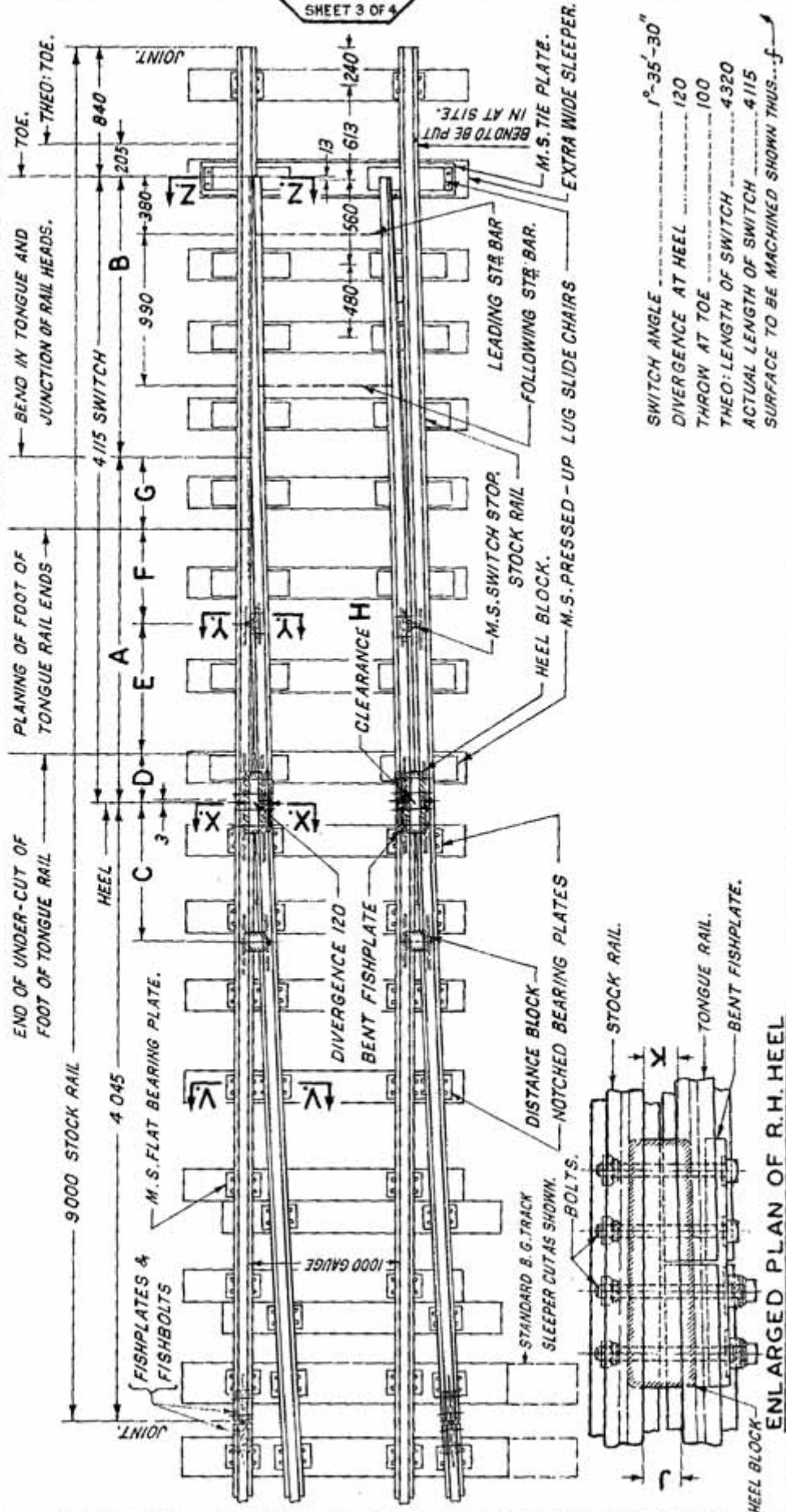


TABLE OF DIMENSIONS

DIMENSIONS (mm)

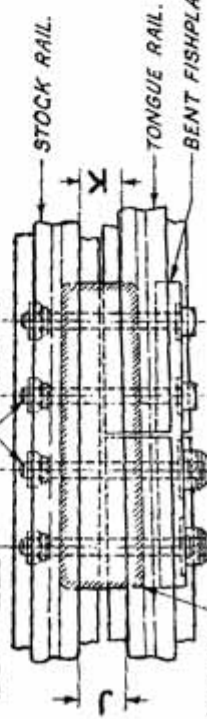
RAIL ASSEMBLY SECTION DRAWING No	A	B	C	D	E	F	G	H	J	K	L	M	N	O
75 R. TA 20405	2091	2024	850	1091	1000	3	618	581	64	52.5	25	54	60	20
60 R. TA 20408	2263	1852	1000	1163	1100	324	475	62.8	68.5	57	22	47.5	53.5	20

# TYPICAL SHORT SWITCH M.G. WITH INTERLACED SLEEPERS

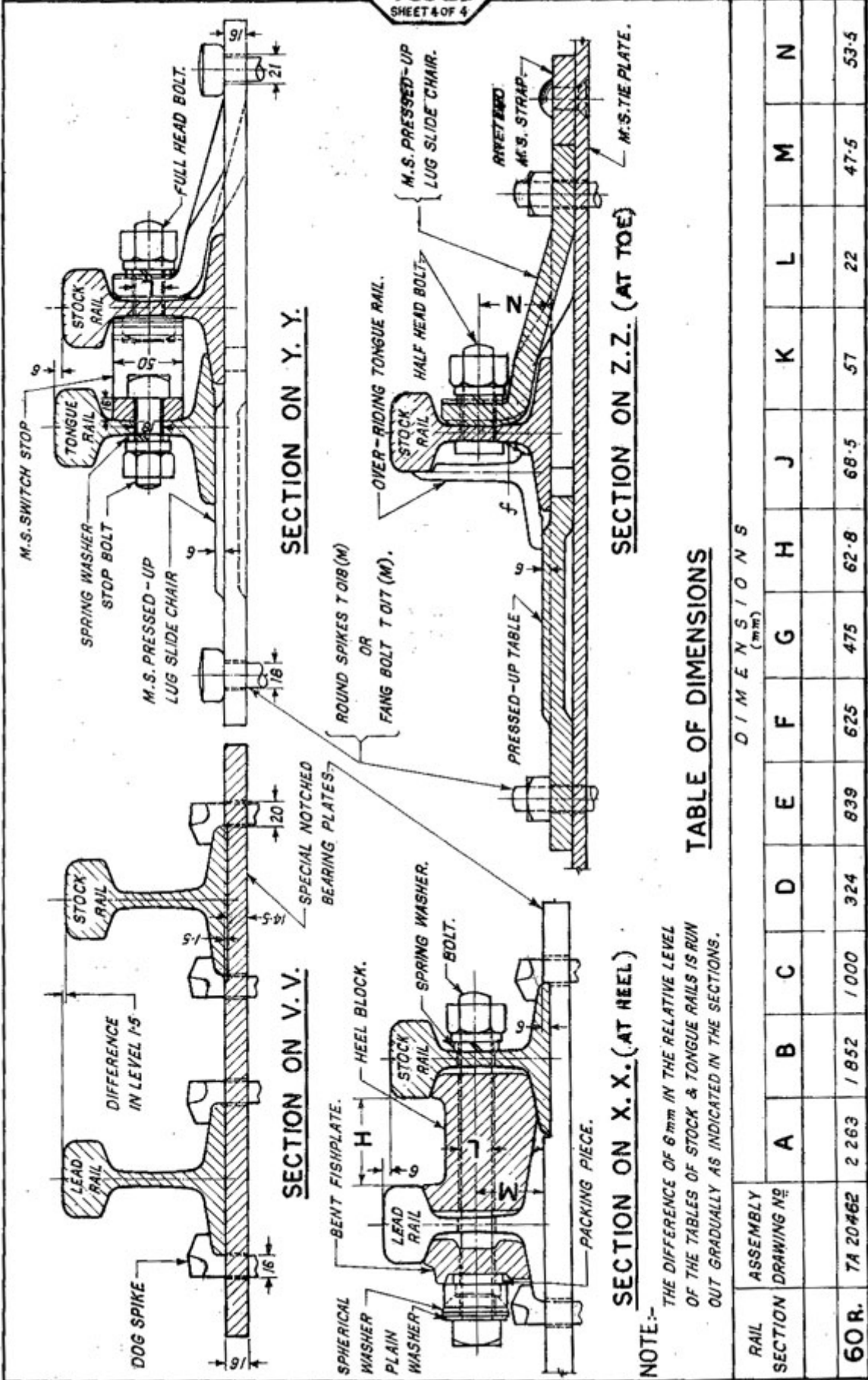


SWITCH ANGLE	1°-35'-30"
DIVERGENCE AT HEEL	120
THROW AT TOE	100
THEO: LENGTH OF SWITCH	4320
ACTUAL LENGTH OF SWITCH	4115

SURFACE TO BE MACHINED SHOWN THUS...f



ENLARGED PLAN OF R.H. HEEL



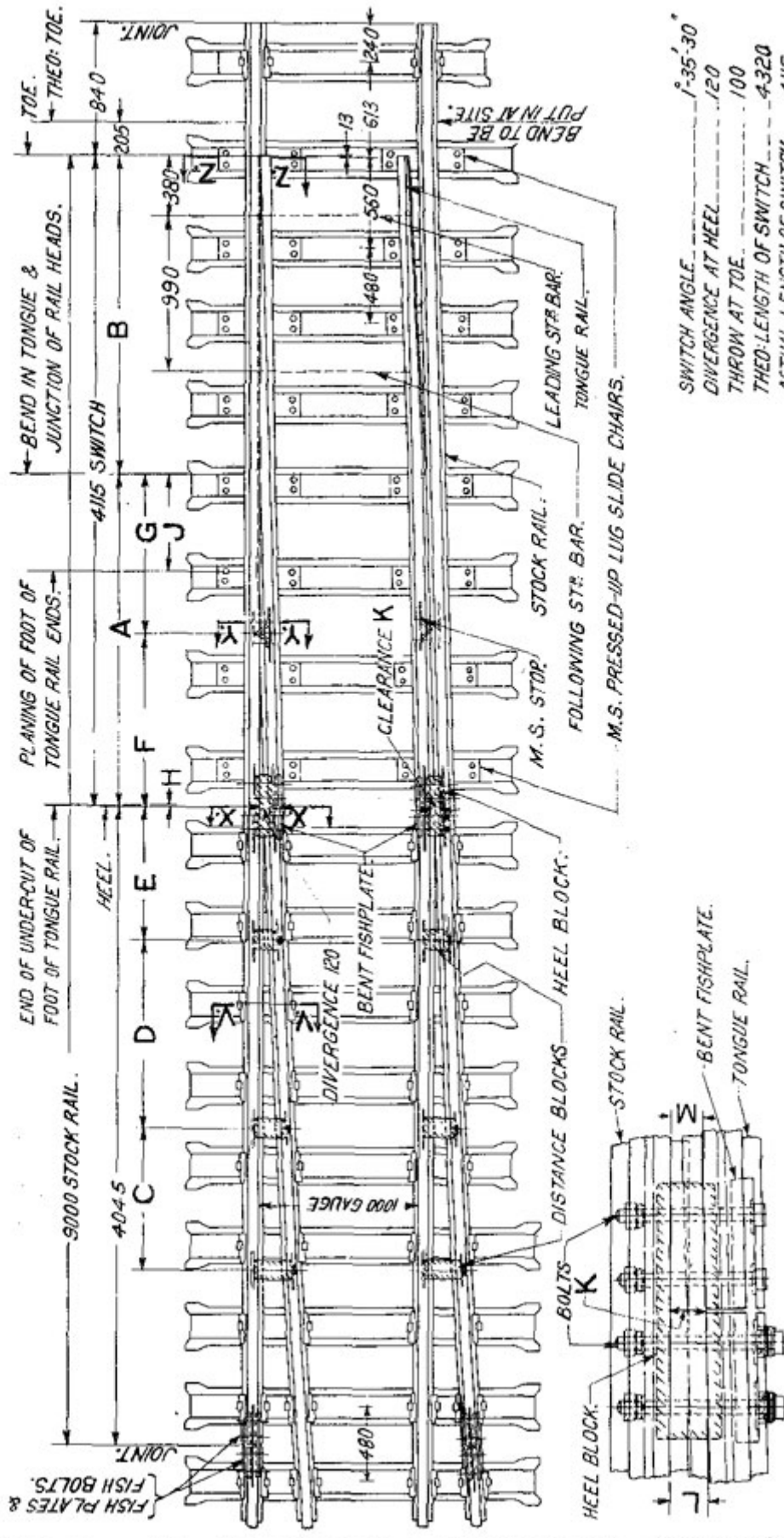
**TABLE OF DIMENSIONS**

		D I M E N S I O N S (i n m m)													
RAIL SECTION	ASSEMBLY DRAWING NO	A	B	C	D	E	F	G	H	J	K	L	M	N	
60 R.	TA 20462	2 263	1 852	1 000	324	839	625	475	62-8	68-5	57	22	47-5	53-5	

NOTE:- THE DIFFERENCE OF 6 mm IN THE RELATIVE LEVEL OF THE TABLES OF STOCK & TONGUE RAILS IS RUN OUT GRADUALLY AS INDICATED IN THE SECTIONS.

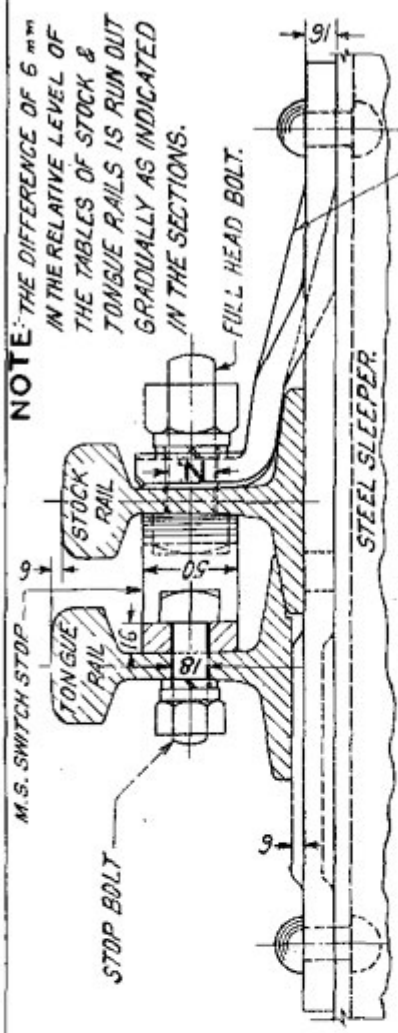


**TYPICAL SHORT SWITCH M. G. WITH STEEL SLEEPERS.**

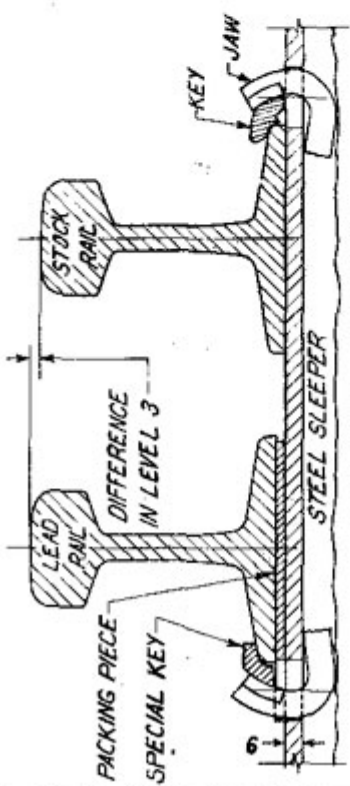


SWITCH ANGLE	1°-35'-30"
DIVERGENCE AT HEEL	120
THROW AT TOE	100
THEED-LENGTH OF SWITCH	4320
ACTUAL LENGTH OF SWITCH	4115
SURFACES TO BE MACHINED SHOWN THUS.....	

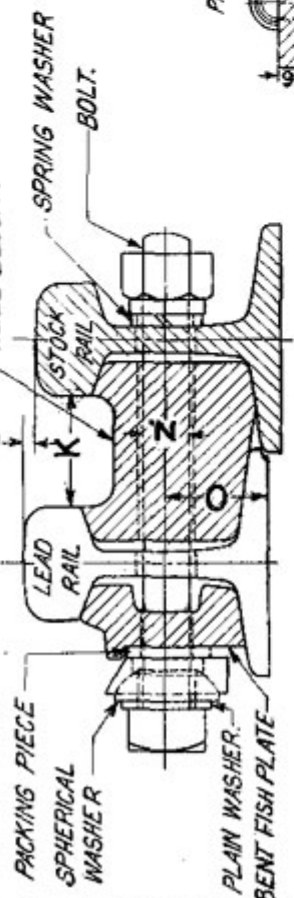
**ENLARGED PLAN OF R. H. HEEL.**



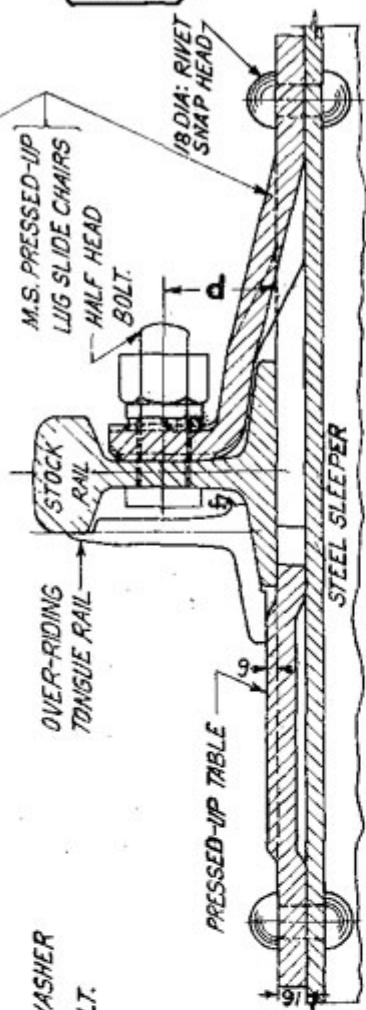
SECTION ON Y.Y.



SECTION ON V.V.



SECTION ON X.X. (AT HEEL)



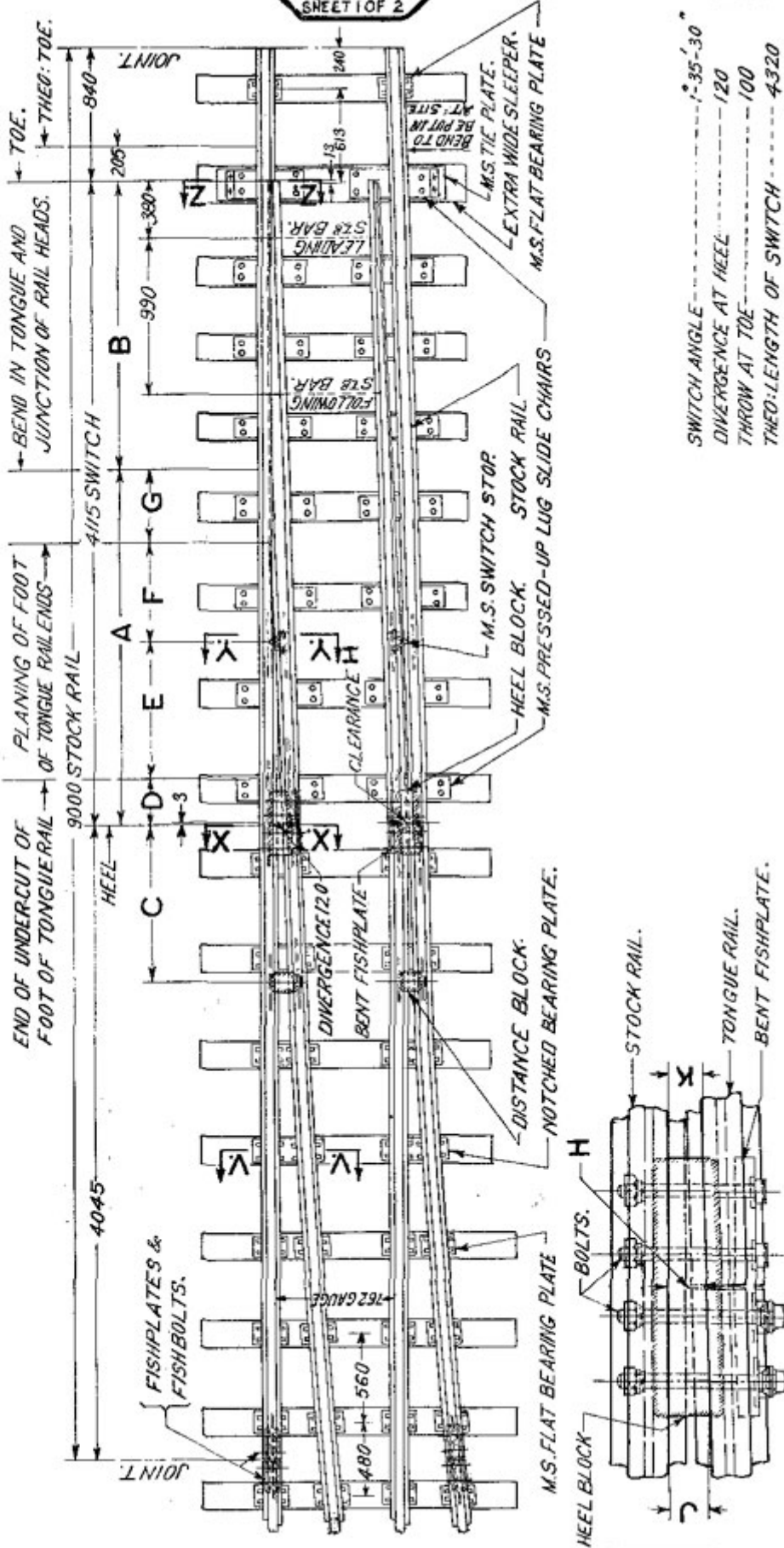
SECTION ON Z.Z. (AT TOE)

TABLE OF DIMENSIONS

DIMENSIONS (mm)

RAIL SECTION	ASSEMBLY DRAWING #	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
75 R.	TA 21005	2091	2024	900	1200	850	1091	1000	3	618	581	64	52.5	25	54	60
60 R.	TA 21008	2263	1852	900	1200	1000	1153	1100	324	475	62.8	68.5	57	22	47.5	53.5

# TYPICAL SHORT SWITCH N. G.



SWITCH ANGLE	35'-30"
DIVERGENCE AT HEEL	120
THROW AT TOE	100
THEO. LENGTH OF SWITCH	4320
ACTUAL LENGTH OF SWITCH	4115
SURFACE TO BE MACHINED SHOWN THUS	







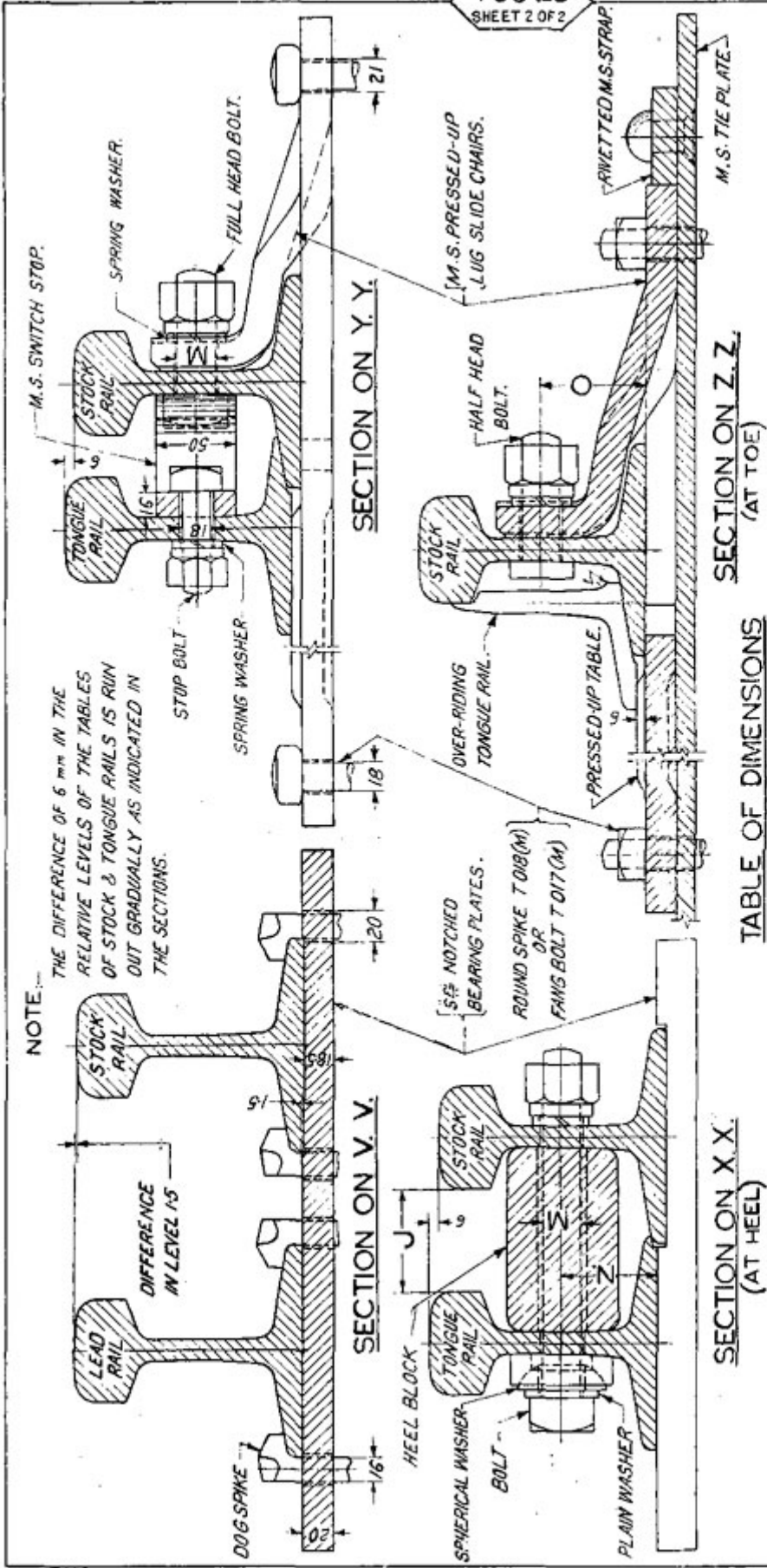


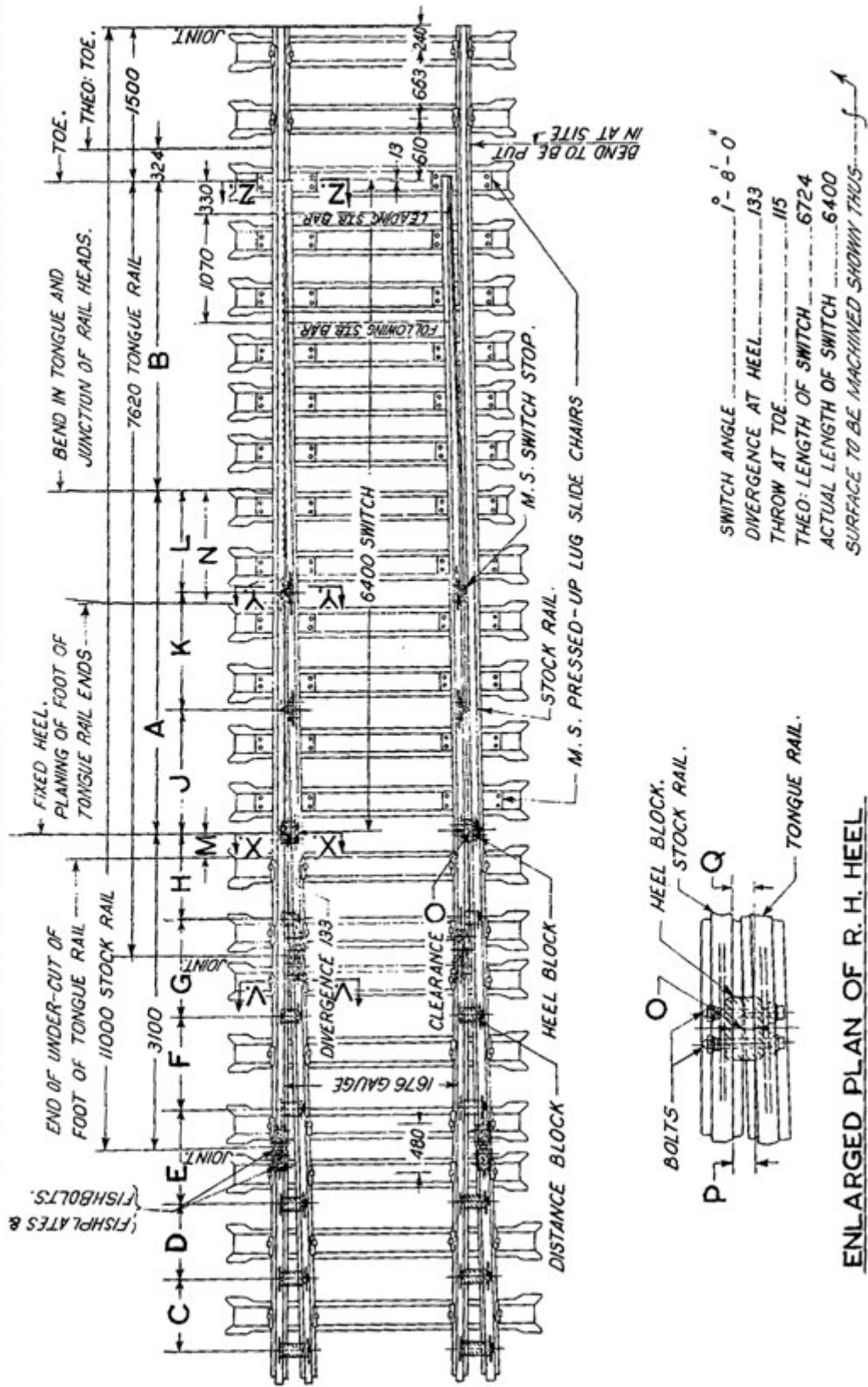
TABLE OF DIMENSIONS

DIMENSIONS (in mm)

RAIL ASSEMBLY SECTION/DRAWING N <sup>o</sup>	A	B	C	D	E	F	G	H	J	K	L	M	N	O
52 Kg TA 5270(M)	3337	3063	1777	1157	1150	1000	227	2275	66	63.5	64.5	25	67	73
90 R. TA 5272(M)	3353	3047	1804	1293	1110	950	254	1108	66.3	68.2	64.2	25	60	66



# TYPICAL LONG SWITCH B. G. WITH STEEL SLEEPERS



ENLARGED PLAN OF R. H. HEEL

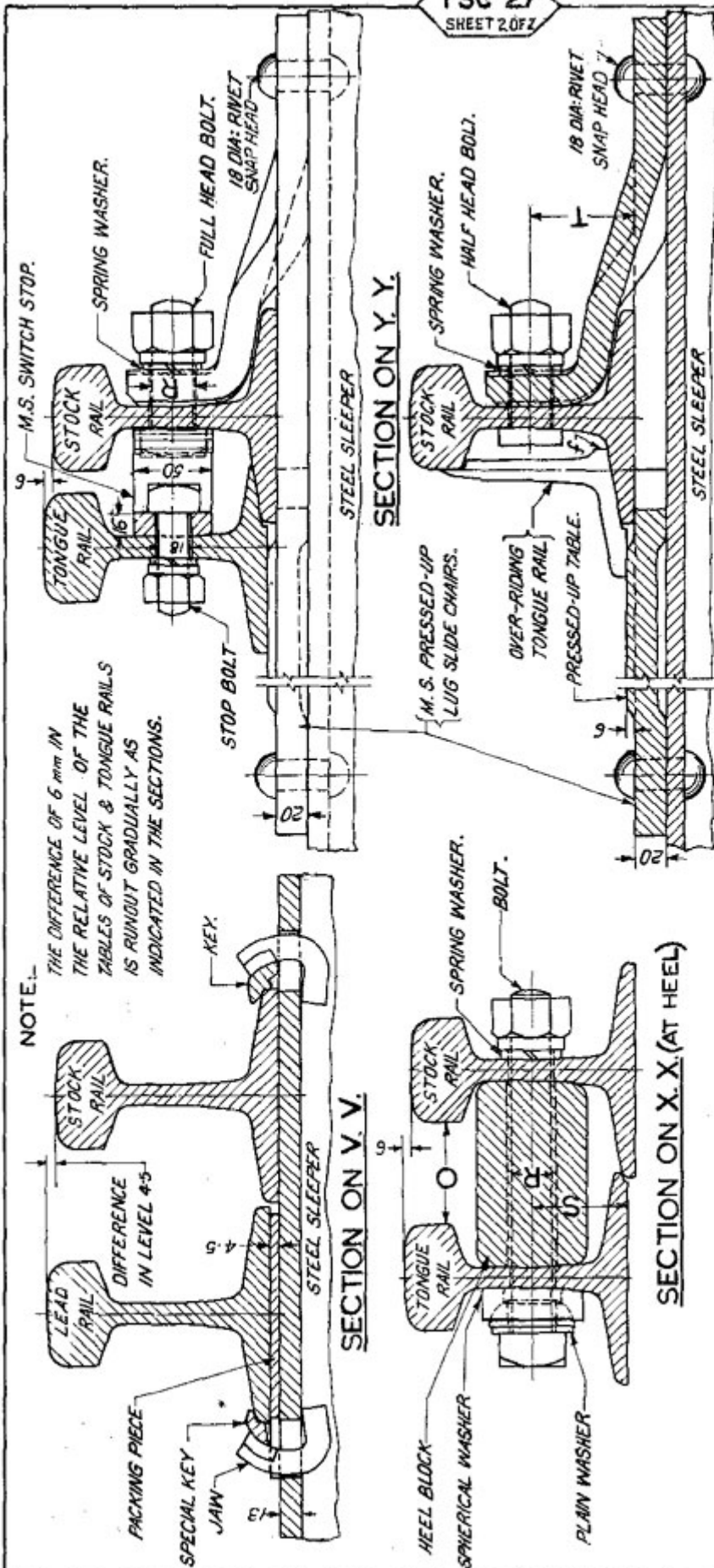
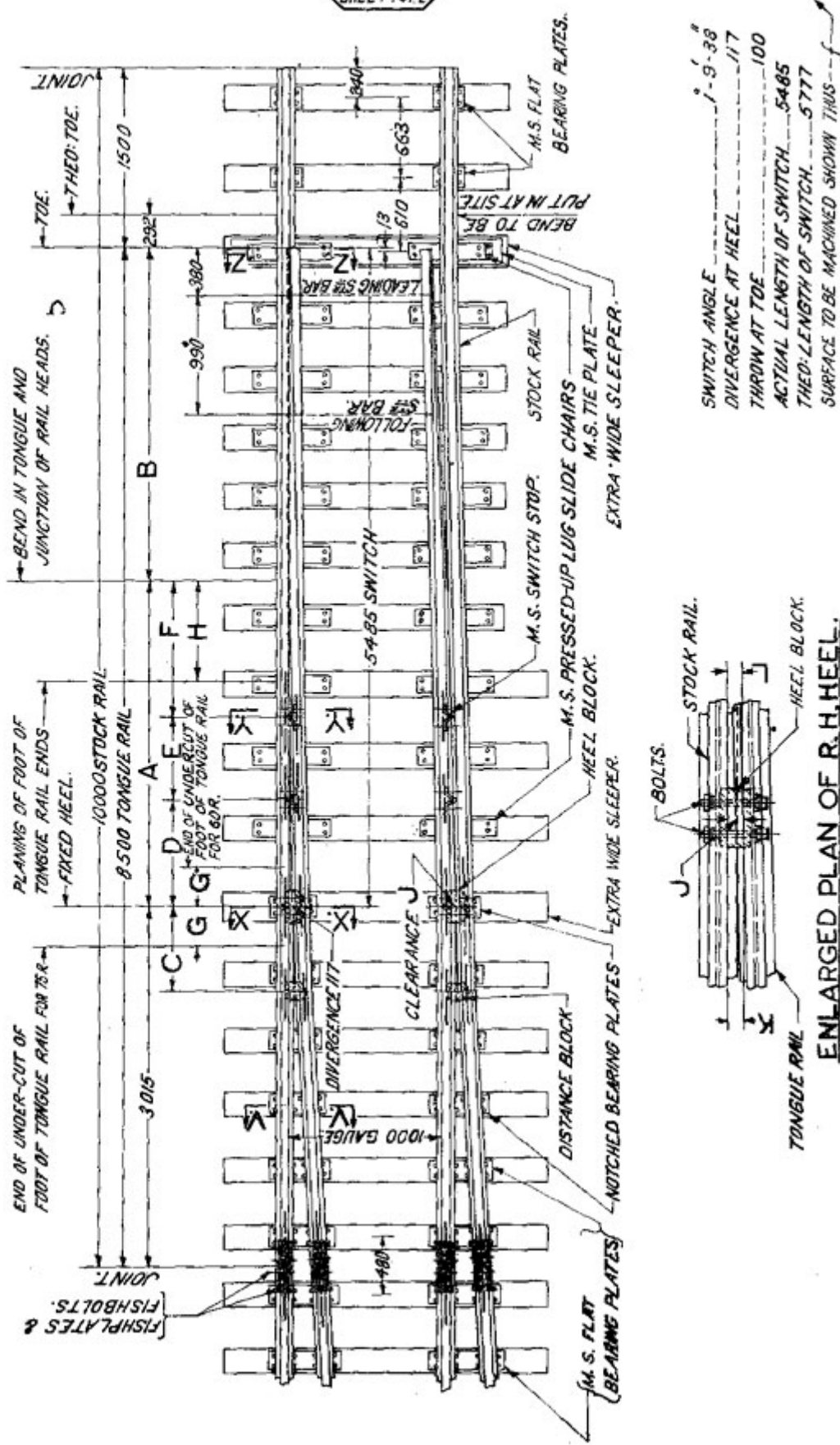


TABLE OF DIMENSIONS

RAIL SECTION	ASSEMBLY DRG: N <sup>o</sup>	DIMENSIONS (mm)																		
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
52 Kg.	TA 20802	3337	3063	690	720	940	900	977	800	1187	1150	1000	227	2275	66	68.5	64.5	25	67	73
90 R.	TA 20808	3353	3047	690	720	930	900	954	850	1293	1110	950	254	1108	66.3	68.2	64.2	25	60	66

**TYPICAL LONG SWITCH M. G.**



SWITCH ANGLE  $i = 9.38^\circ$   
 DIVERGENCE AT HEEL  $i = 117$   
 THROW AT TOE 100  
 ACTUAL LENGTH OF SWITCH 5485  
 THEO. LENGTH OF SWITCH 5777  
 SURFACE TO BE MACHINED SHOWN THUS  $\dashv$

**ENLARGED PLAN OF R.H. HEEL.**

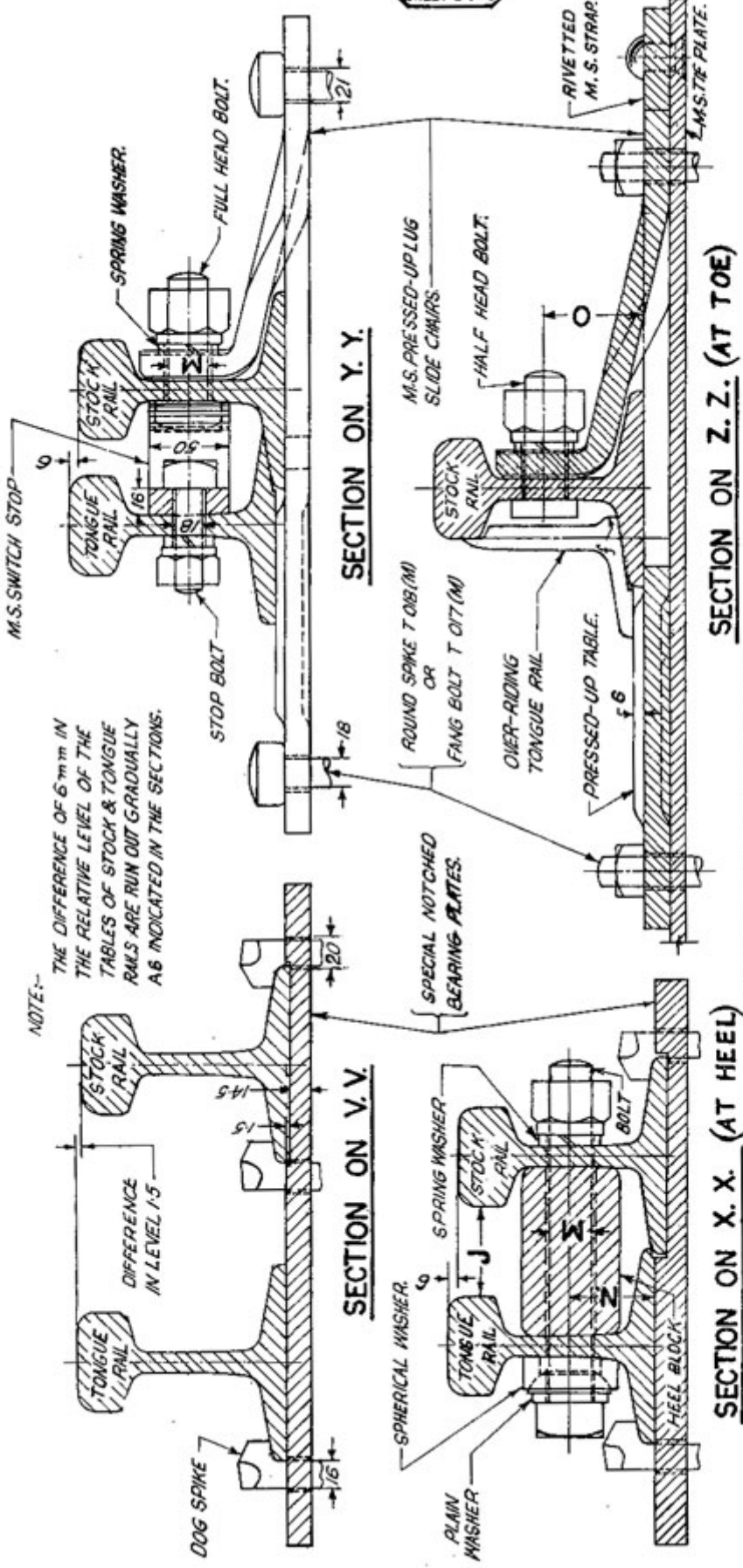
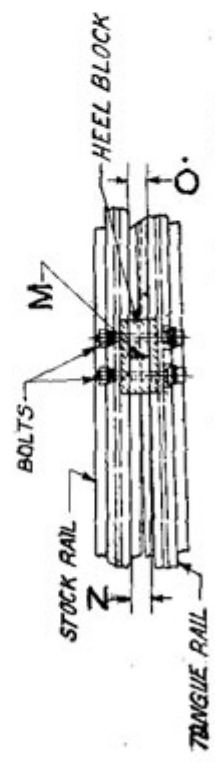
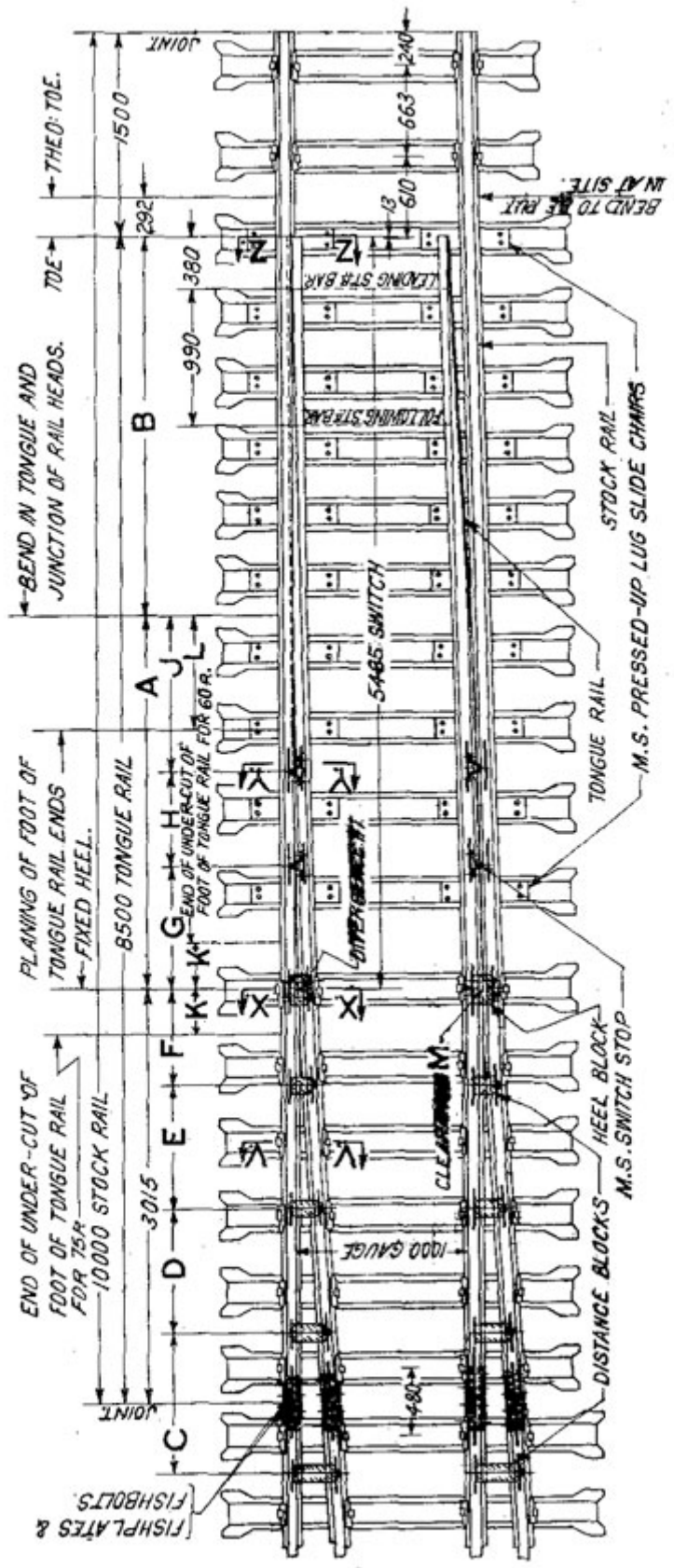


TABLE OF DIMENSIONS  
(in mm)

RAIL ASSEMBLY SECTION DRAWING NO.	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	O
75R. TA 20402	2720	2765	700	900	690	1130	332	847	551	572	532	25	54	60
60R. TA 20411	2955	2530	840	1005	695	1255	295	651	598	62	58	22	41.5	53.5

# TYPICAL LONG SWITCH M. G. WITH STEEL SLEEPERS.



ENLARGED PLAN OF R.H. HEEL

SWITCH ANGLE	1°-9'-38"
DIVERGENCE AT HEEL	117
THROW AT TOE	100
THEO-LENGTH OF SWITCH	5777
ACTUAL LENGTH OF SWITCH	6485
SURFACE TO BE MACHINED SHOWN THUS $\nabla$	