Depreciation %

6 | 18 12 6 1 | d

35
30
25
20
15
10
5

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135

B.L. Tons

Depreciations

as a percentage

For the standard windings

6 | 6/1 | d and 6 | 18/12/6/1 | d.

Breaking Load in Tons.

The decimal values plotted are diameters of the wires: the star-marks refer to groups of tests: the letters plotted give the quality of the steel.

The probable depreciations for other windings may be interpolated from these.

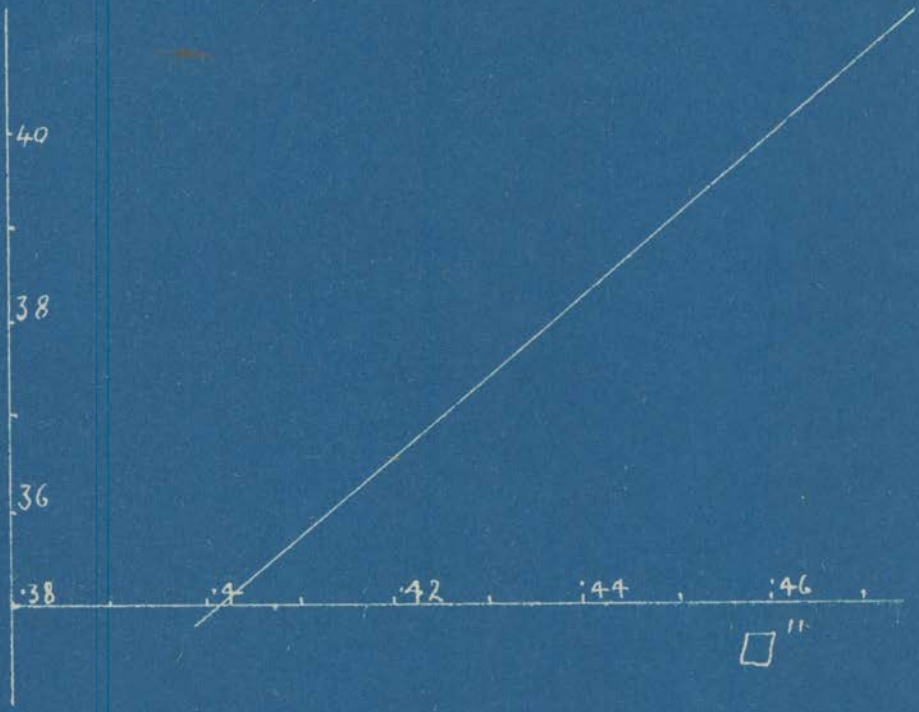
Note that there is a considerable amount of irregularity in these results

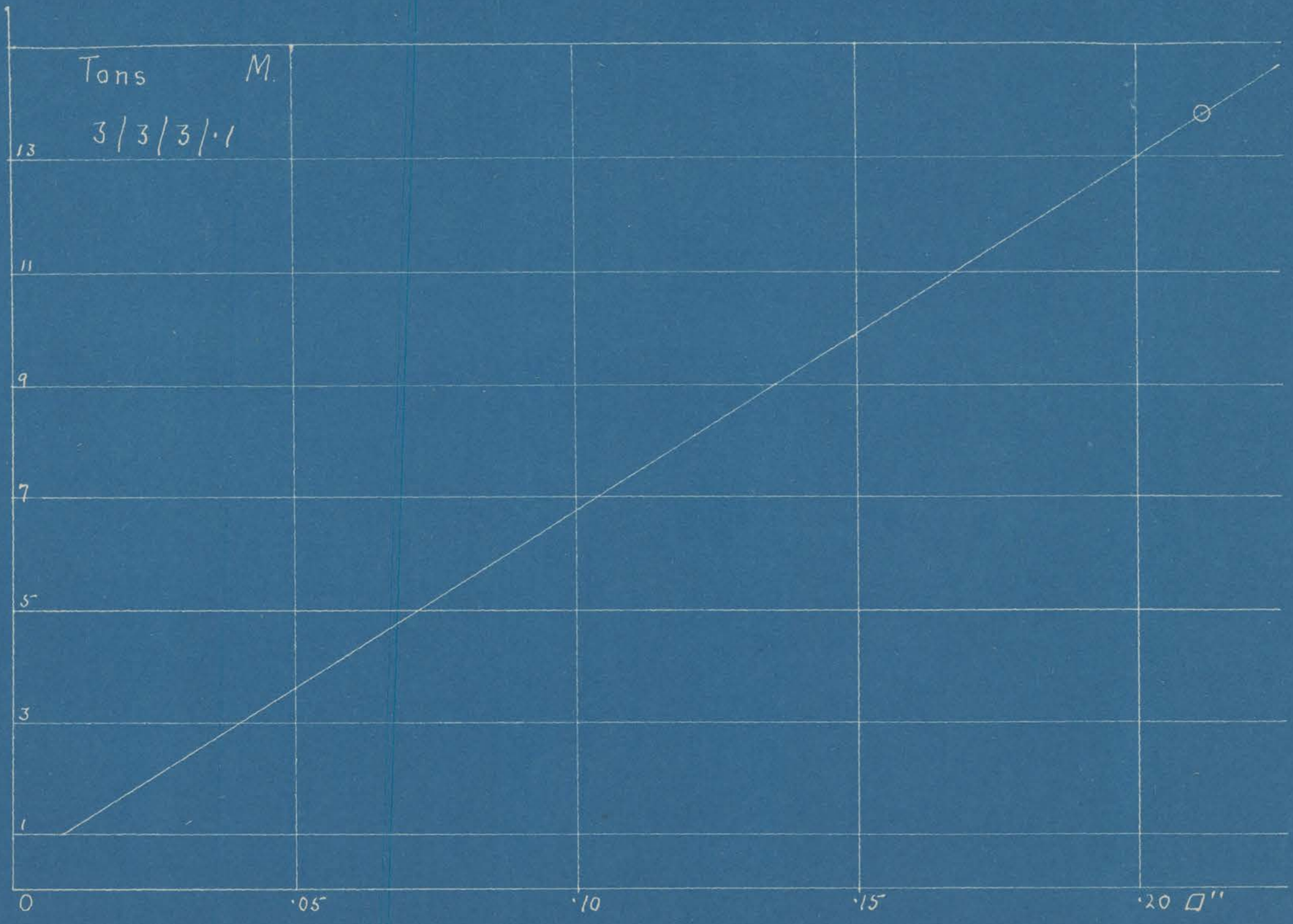
For Chapter V

No (V)

Tons M

6/6/d.





Cable.

Tons

Kilindo. Non-rotating.

M $\frac{10 \mid 6 \mid d_1}{6 \mid 6 \mid d_2}$ ⊕

S $\frac{12 \mid 6 \mid d_1}{6 \mid 6 \mid d_2}$ ○

90
80
70
60
50
40
30
20
10

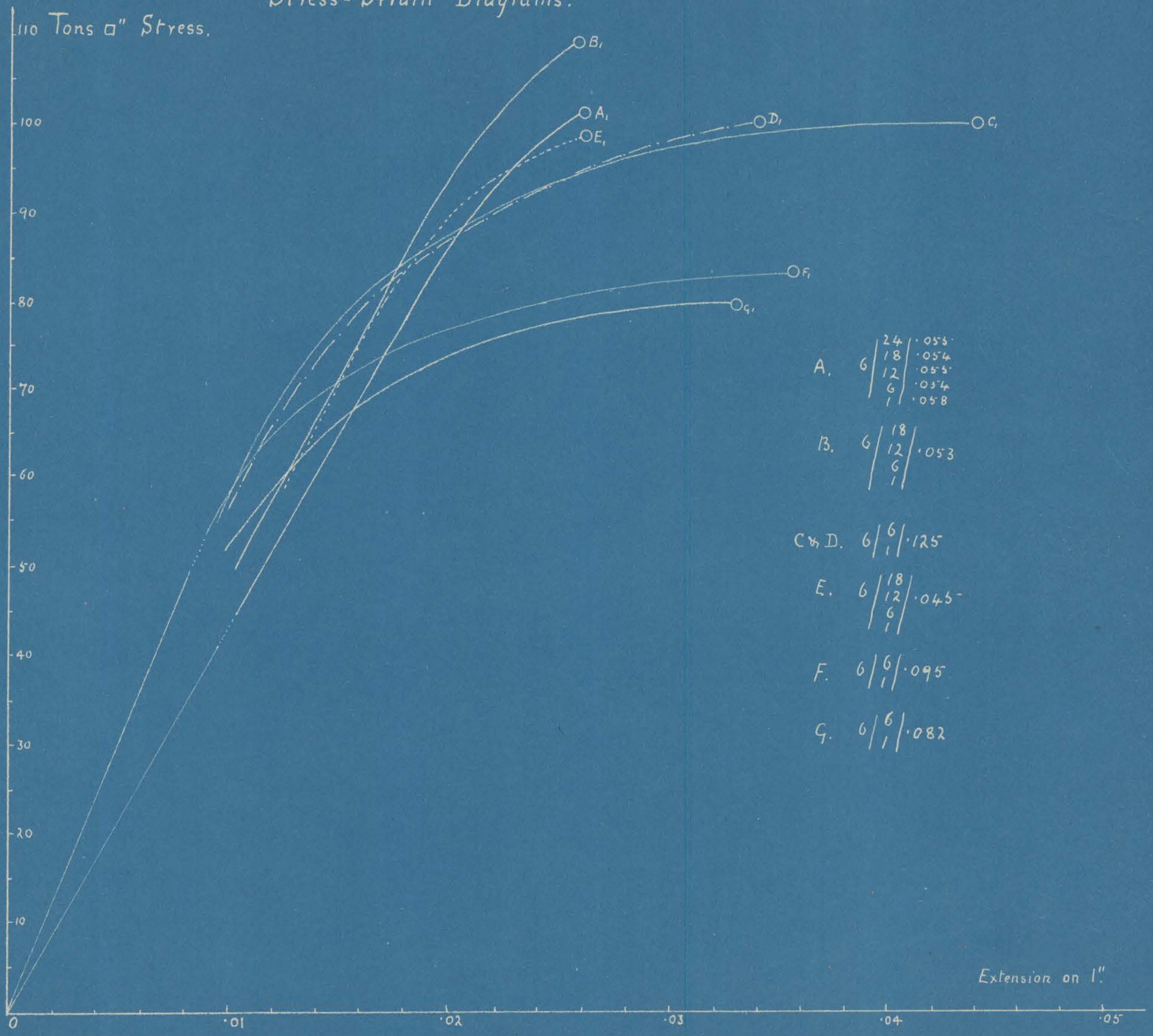
0 ·1 ·2 ·3 ·4 ·5 ·6 ·7 ·8 ·9 1·0 1·1 □

Some Special and Rare Forms of Rope.

For Chapter V

No. (vi)

Stress-Strain Diagrams.



A. 6 | 24 / 18 / 12 / 6 / 1 | ·053 / ·054 / ·053 / ·054 / ·058

B. 6 | 18 / 12 / 6 / 1 | ·053

C & D. 6 | 6 / 1 | ·125

E. 6 | 18 / 12 / 6 / 1 | ·045

F. 6 | 6 / 1 | ·095

G. 6 | 6 / 1 | ·082

	80	85	90	95	100	105	110	115	120
·090	1140·024	1211·276	1282·527	1353·779	1425·030	1496·282	1567·533	1638·785	1710·036
·091	1165·497	1238·340	1311·184	1384·027	1456·871	1529·715	1602·558	1675·402	1748·245
·092	1191·254	1265·707	1340·160	1414·614	1489·067	1563·520	1637·974	1712·427	1786·880
·093	1217·291	1293·372	1369·453	1445·533	1521·614	1597·695	1673·775	1749·856	1825·937
·094	1243·610	1321·336	1399·062	1476·787	1554·513	1632·239	1709·964	1787·690	1865·416
·095	1270·211	1349·599	1428·988	1508·376	1587·764	1667·152	1746·540	1825·929	1905·317
·096	1297·093	1378·161	1459·229	1540·298	1621·366	1702·434	1783·503	1864·571	1945·639
·097	1324·256	1407·022	1489·788	1572·554	1655·320	1738·086	1820·852	1903·618	1986·384
·098	1351·702	1436·184	1520·665	1605·147	1689·628	1774·109	1858·591	1943·072	2027·554
·099	1379·428	1465·642	1551·857	1638·071	1724·285	1810·499	1896·714	1982·928	2069·142
·100	1407·440	1495·405	1583·370	1671·335	1759·300	1847·265	1935·230	2023·195	2111·160
·101	1435·728	1525·461	1615·194	1704·927	1794·660	1884·393	1974·126	2063·859	2153·592
·102	1464·297	1555·815	1647·334	1738·852	1830·371	1921·890	2013·408	2104·927	2196·445
·103	1493·148	1586·470	1679·792	1773·113	1866·435	1959·757	2053·079	2146·400	2239·722
·104	1522·282	1617·425	1712·568	1807·710	1902·853	1997·996	2093·138	2188·281	2283·424
·105	1551·698	1648·680	1745·661	1842·642	1939·623	2036·604	2133·585	2230·566	2327·548
·106	1581·395	1680·232	1779·070	1877·907	1976·744	2075·581	2174·418	2273·256	2372·093
·107	1611·374	1712·084	1812·795	1913·506	2014·217	2114·928	2215·639	2316·350	2417·060
·108	1641·634	1744·236	1846·838	1949·440	2052·042	2154·644	2257·246	2359·848	2462·450
·109	1672·174	1776·685	1881·196	1985·707	2090·218	2194·729	2299·240	2403·751	2508·262
110	1702·998	1809·436	1915·873	2022·311	2128·748	2235·185	2341·623	2448·060	2554·498
·111	1734·102	1842·484	1950·865	2059·247	2167·628	2276·009	2384·391	2492·772	2601·154
·112	1765·487	1875·830	1986·173	2096·516	2206·859	2317·202	2427·545	2537·888	2648·231
·113	1797·143	1909·465	2021·786	2134·108	2246·429	2358·750	2471·072	2583·393	2695·715
·114	1829·094	1943·413	2057·731	2172·050	2286·368	2400·686	2515·005	2629·323	2743·642
·115	1861·333	1977·666	2093·999	2210·333	2326·666	2442·999	2559·333	2675·666	2791·999
·116	1893·839	2012·204	2130·569	2248·934	2367·299	2485·664	2604·029	2722·394	2840·759
·117	1926·633	2047·047	2167·462	2287·876	2408·291	2528·706	2649·120	2769·535	2889·949
·118	1959·714	2082·196	2204·678	2327·160	2449·642	2572·124	2694·606	2817·088	2939·570
·119	1993·062	2117·629	2242·195	2366·762	2491·328	2615·894	2740·461	2865·027	2989·594
·120	2026·698	2153·367	2280·036	2406·704	2533·373	2660·042	2786·710	2913·379	3040·048

	80	85	90	95	100	105	110	115	120
·060	506·677	538·345	570·012	601·679	633·347	665·014	696·681	728·349	760·016
·061	523·707	556·438	589·170	621·902	654·633	687·365	720·097	752·828	785·560
·062	541·017	574·831	608·645	642·458	676·272	710·085	743·899	777·712	811·526
·063	558·611	593·524	628·438	663·350	698·264	733·177	768·090	803·004	837·917
·064	576·485	612·515	648·545	684·576	720·606	756·636	792·666	828·697	864·727
·065	594·641	631·806	668·971	706·136	743·301	780·466	817·632	854·797	891·961
·066	613·221	651·547	689·873	728·200	766·526	804·852	843·178	881·505	919·831
·067	631·7982	671·2856	710·7730	750·2604	789·7478	829·2352	868·7226	908·2100	947·6974
·068	650·7970	691·4719	732·1467	772·8215	813·4963	854·1711	894·8459	935·5207	976·1956
·069	670·0790	711·9589	753·8388	795·7188	837·5987	879·4786	921·3586	963·2385	1005·1184
·070	689·6440	732·7468	775·8495	818·9523	862·0550	905·1578	948·2605	991·3633	1034·4660
·071	709·4887	753·8317	798·1747	842·5178	886·8608	931·2038	975·5469	1019·8899	1064·2330
·072	729·6146	775·2155	820·8164	866·4173	912·0182	957·6191	1003·2200	1048·8209	1094·4218
·073	750·0219	796·8983	843·7747	890·6510	937·5274	984·4038	1031·2801	1078·1565	1125·0329
·074	770·7123	818·8818	867·0514	915·2209	963·3904	1011·5599	1059·7294	1107·8990	1156·0685
·075	791·6823	841·1625	890·6426	940·1228	989·6029	1039·0830	1088·5632	1138·0433	1187·5235
·076	812·9352	863·7437	914·5521	965·3606	1016·1690	1066·9775	1117·7859	1168·5944	1219·4028
·077	834·4680	886·6223	938·7765	990·9308	1043·0850	1095·2393	1147·3935	1199·5478	1251·7020
·078	856·2040	909·8018	963·3195	1016·8373	1070·3550	1123·8728	1177·3905	1230·9083	1284·4260
·079	878·3808	933·2796	988·1784	1043·0772	1097·9760	1152·8748	1207·7736	1262·6724	1317·5712
·080	900·7592	957·0567	1013·3541	1069·6516	1125·9490	1182·2465	1238·5439	1294·8414	1351·1388
·081	923·4176	981·1312	1038·8448	1096 5584	1154·2720	1211·9856	1269·6992	1327·4128	1385·1264
·082	946·3584	1005·506	1064·653	1123·801	1182·948	1242·095	1301·243	1360·390	1419·538
·083	969·583	1030·182	1090·781	1151·380	1211·979	1272·578	1333·177	1393·776	1454·375
·084	993·087	1055·155	1117·223	1179·291	1241·359	1303·427	1365·495	1427·563	1489·631
·085	1016·872	1080·427	1143·981	1207·536	1271·040	1334·645	1398·199	1461·754	1525·308
·086	1040·938	1105·997	1171·056	1236·114	1301·173	1366·232	1431·290	1496·349	1561·408
·087	1065·289	1131·869	1198·450	1265·030	1331·611	1398·192	1464·772	1531·353	1597·933
·088	1089·918	1158·037	1226·157	1294·277	1362·397	1430·517	1498·637	1566·757	1634·876
·089	1114·830	1184·507	1254·184	1323·861	1393·538	1463·215	1532·892	1602·569	1672·246
·090	1140·024	1211·276	1282·527	1353·779	1425·030	1496·282	1567·533	1638·785	1710·036

	80	85	90	95	100	105	110	115	120
·030	126·6693	134·5861	142·5029	150·4198	158·3366	166·2534	174·1703	182·0871	190·0039
·031	135·2546	143·7081	152·1615	160·6149	169·0683	177·5217	185·9751	194·4285	202·8820
·032	144·1206	153·1282	162·1357	171·1433	180·1508	189·1583	198·1659	207·1734	216·1810
·033	153·2698	162·8491	172·4285	182·0078	191·5872	201·1666	210·7459	220·3253	229·9046
·034	162·6996	172·8683	183·0371	193·2058	203·3745	213·5432	223·7120	233·8807	244·0494
·035	172·4110	183·1867	193·9624	204·7381	215·5138	226·2895	237·0652	247·8409	258·6166
·036	182·4023	193·8025	205·2026	216·6028	228·0029	239·4030	250·8032	262·2033	273·6035
·037	192·6776	204·7200	216·7623	228·8047	240·8470	252·8894	264·9317	276·9741	289·0164
·038	203·2325	215·9345	228·6365	241·3386	254·0406	266·7426	279·4447	292·1467	304·8487
·039	214·0706	227·4500	240·8294	254·2088	267·5882	280·9676	294·3470	307·7264	321·1058
·040	225·1899	239·2643	253·3387	267·4130	281·4874	295·5618	309·6361	323·7105	337·7849
·041	236·5888	251·3756	266·1624	280·9492	295·7360	310·5228	325·3096	340·0964	354·8832
·042	248·2709	263·7878	279·3047	294·8217	310·3386	325·8555	341·3725	356·8894	372·4063
·043	260·2342	276·4989	292·7635	309·0282	325·2928	341·5574	357·8221	374·0867	390·3514
·044	272·4790	289·5090	306·5389	323·5689	340·5988	357·6287	374·6587	391·6886	408·7186
·045	285·0050	302·8179	320·6307	338·4435	356·2563	374·0691	391·8819	409·6947	427·5076
·046	297·8125	316·4258	335·0390	353·6523	372·2656	390·8789	409·4922	428·1054	446·7187
·047	310·9013	330·3326	349·7639	369·1953	388·6266	408·0579	427·4893	446·9206	466·3519
·048	324·2731	344·5402	364·8073	385·0743	405·3414	425·6085	445·8755	466·1426	486·4097
·049	337·9246	359·0449	380·1652	401·2855	422·4058	443·5261	464·6464	485·7667	506·8870
·050	351·8592	373·8504	395·8416	417·8328	439·8240	461·8152	483·8064	505·7976	527·7888
·051	366·0734	388·9529	411·8325	434·7121	457·5917	480·4713	503·3504	526·2305	549·1100
·052	380·5706	404·3563	428·1420	451·9276	475·7133	499·4990	523·2846	547·0703	570·8560
·053	395·3474	420·0567	444·7659	469·4751	494·1843	518·8935	543·6027	568·3119	593·0212
·054	410·4074	436·0579	461·7084	487·3588	513·0093	538·6598	564·3102	589·9607	615·6112
·055	425·7487	452·3580	478·9673	505·5766	532·1859	558·7952	585·4045	612·0138	638·6231
·056	441·3714	468·9571	496·5428	524·1285	551·7142	579·2999	606·8856	634·4713	662·0570
·057	457·2754	485·8551	514·4348	543·0145	571·5942	600·1739	628·7536	657·3333	685·9130
·058	473·4607	503·0520	532·6433	562·2346	591·8259	621·4172	651·0085	680·5998	710·1911
·059	489·9274	520·5479	551·1684	581·7888	612·4093	643·0298	673·6502	704·2707	734·8912
·060	506·6773	538·3446	570·0119	601·6793	633·3466	665·0139	696·6813	728·3486	760·0159

Table D

Calculated by Edw Horsburgh

First Column = diameter of wire in inches

First Row = Strength of Steel in tons per square inch

Entries = Strength of wire in lbs.

For chapter III

To face page 98.

	80	85	90	95	100	105	110	115	120
·001	·14074	·14954	·15834	·16713	·17593	·18473	·19352	·20232	·21112
·002	·56289	·59808	·63326	·66844	·70362	·73880	·77398	·80916	·84434
·003	1·26669	1·34586	1·42503	1·50420	1·58337	1·66253	1·74170	1·82087	1·90004
·004	2·2519	2·3926	2·5334	2·6741	2·8149	2·9556	3·0964	3·2371	3·3778
·005	3·5186	3·7385	3·9584	4·1783	4·3982	4·6182	4·8381	5·0580	5·2779
·006	5·0668	5·3834	5·7001	6·0168	6·3335	6·6501	6·9668	7·2835	7·6002
·007	6·8964	7·3275	7·7585	8·1895	8·6206	9·0516	9·4826	9·9136	10·3447
·008	9·0076	9·5706	10·1335	10·6965	11·2595	11·8225	12·3854	12·9484	13·5114
·009	11·4002	12·1128	12·8253	13·5378	14·2503	14·9628	15·6753	16·3878	17·1004
·010	14·0744	14·9540	15·8337	16·7133	17·5930	18·4726	19·3523	20·2319	21·1116
·011	17·0300	18·0944	19·1588	20·2231	21·2875	22·3519	23·4163	24·4806	25·5450
·012	20·2670	21·5337	22·8004	24·0670	25·3337	26·6004	27·8671	29·1338	30·4005
·013	23·7856	25·2722	26·7588	28·2454	29·7320	31·2186	32·7052	34·1918	35·6784
·014	27·5857	29·3048	31·0339	32·7580	34·4821	36·2062	37·9303	39·6544	41·3785
·015	31·6673	33·6465	35·6257	37·6050	39·5842	41·5634	43·5426	45·5218	47·5010
·016	36·0303	38·2822	40·5341	42·7860	45·0379	47·2898	49·5417	51·7936	54·0455
·017	40·6748	43·2170	45·7592	48·3013	50·8435	53·3857	55·9279	58·4700	61·0122
·018	45·6008	48·4509	51·3010	54·1510	57·0011	59·8511	62·7012	65·5512	68·4013
·019	50·8084	53·9839	57·1595	60·3350	63·5105	66·6860	69·8616	73·0371	76·2126
·020	56·2975	59·8161	63·3347	66·8532	70·3718	73·8904	77·4090	80·9276	84·4462
·021	62·0679	65·9471	69·8264	73·7056	77·5849	81·4641	85·3433	89·2226	93·1018
·022	68·1198	72·3773	76·6348	80·8923	85·1498	89·4073	93·6648	97·9223	102·1797
·023	74·4533	79·1066	83·7600	88·4133	93·0666	97·7200	102·3733	107·0266	111·6799
·024	81·0683	86·1351	91·2019	96·2686	101·3354	106·4022	111·4690	116·5357	121·6025
·025	87·9648	93·4626	98·9604	104·4582	109·9560	115·4538	120·9516	126·4494	131·9472
·026	95·0626	101·0041	106·9455	112·8869	118·8283	124·7697	130·7111	136·6525	142·5940
·027	102·6020	109·0146	115·4273	121·8399	128·2525	134·6651	141·0778	147·4904	153·9030
·028	110·3430	117·2394	124·1358	131·0323	137·9287	144·8251	151·7216	158·6180	165·5144
·029	118·3654	125·7632	133·1610	140·5589	147·9567	155·3545	162·7524	170·1502	177·5480
·030	126·6693	134·5861	142·5029	150·4198	158·3366	166·2534	174·1703	182·0871	190·0039

	10	20	30	40	50	60	70	80	90
150	·175715	·353430	530145	706860	883575	1·060290	1·237005	1·413720	1·590435
151	179079	358158	537237	716316	895395	1·074474	1·253553	1·432632	1·611711
152	181458	362916	544374	725832	907290	1·088748	1·270206	1·451664	1·633122
153	183854	367708	551562	735416	919270	1·103124	1·286978	1·470832	1·654686
154	186265	372530	558795	745060	931325	1·117590	1·303855	1·490120	1·676385
155	188692	377384	566076	754768	943460	1·132152	1·320844	1·509536	1·698228
156	191134	382268	573402	764536	955670	1·146804	1·337938	1·529072	1·720206
157	193595	387186	580779	774372	967965	1·161558	1·355151	1·548744	1·742337
158	196067	392134	588201	784268	980335	1·176402	1·372469	1·568536	1·764603
159	198556	397112	595668	794224	992780	1·191336	1·389892	1·588448	1·786004
160	201062	402124	603186	804248	1·005310	1·206372	1·407434	1·608496	1·809558
161	203585	407166	610749	814332	1·017915	1·221498	1·425081	1·628664	1·832247
162	206120	412240	618360	824480	1·030600	1·236720	1·442840	1·648960	1·855080
163	208672	417344	626016	834688	1·043360	1·252032	1·460704	1·669376	1·878048
164	211241	422482	633723	844964	1·056205	1·267446	1·478687	1·689928	1·901107
165	213825	427650	641475	855300	1·069125	1·282950	1·496775	1·710600	1·924425
166	216424	432848	649272	865696	1·082120	1·298544	1·514968	1·731392	1·947816
167	219040	438080	657120	876160	1·095200	1·314240	1·533280	1·752320	1·971360
168	221671	443342	665013	886684	1·108355	1·330026	1·551697	1·773368	1·995054
169	224318	448636	672954	897272	1·121590	1·345908	1·570226	1·794544	2·018862
170	226980	453960	680940	907920	1·134900	1·361880	1·588860	1·815840	2·042820
171	229658	459316	688974	918632	1·148290	1·377948	1·607606	1·837264	2·066922
172	232352	464704	697056	929408	1·161760	1·394112	1·626464	1·858816	2·091168
173	235062	470124	705186	940248	1·175310	1·410372	1·645434	1·880496	2·115558
174	237787	475574	713361	951148	1·188935	1·426722	1·664509	1·902296	2·140083
175	240528	481056	721584	962112	1·202640	1·443168	1·683696	1·924224	2·164752
176	243285	486570	729855	973140	1·216425	1·459710	1·702995	1·946280	2·189565
177	246057	492114	738171	984228	1·230285	1·476342	1·722399	1·968456	2·214513
178	248846	497692	746538	995384	1·244230	1·493076	1·741914	1·990768	2·239614
179	251650	503300	754950	1·006600	1·258250	1·509900	1·761550	2·013200	2·264850
180	254469	508938	763407	1·017876	1·272345	1·526814	1·781283	2·035752	2·290221

	10	20	30	40	50	60	70	80	90
120	113097	226194	339291	452388	565485	678582	791679	904776	1·017873
121	114990	229980	344970	459960	574950	689940	804930	919920	1·034910
122	116898	233796	350694	467592	584490	701388	818286	935184	1·052082
123	118823	237646	356469	475292	594115	712938	831761	950584	1·069407
124	120763	241526	362289	483052	603815	724578	845341	966104	1·086867
125	122718	245436	368154	490872	613590	736308	859026	981744	1·104462
126	124690	249380	374070	498760	623450	748140	872830	997520	1·122210
127	126677	253354	380031	506708	633385	760062	886739	1·013416	1·140093
128	128679	257358	386037	514716	643395	772074	900753	1·029432	1·158111
129	130698	261396	392094	522792	653490	784188	914886	1·045584	1·176282
130	132732	265464	398196	530928	663660	796392	929124	1·061856	1·194588
131	134782	269564	404346	539128	673910	808692	943474	1·078256	1·213038
132	136848	273696	410544	547392	684240	821088	957936	1·094784	1·231632
133	138929	277858	416787	555716	694645	833574	972503	1·111432	1·250361
134	141026	282052	423078	564104	705130	846156	987182	1·128208	1·269234
135	143139	286278	429417	572556	715695	858834	1·001973	1·145112	1·288251
136	145267	290534	435801	581068	726335	871602	1·016864	1·162136	1·307403
137	147411	294822	442233	589644	737055	884466	1·031877	1·179288	1·326699
138	149571	299142	448713	598284	747855	897426	1·046997	1·196568	1·346139
139	151747	303494	455241	606988	758735	910482	1·062224	1·213976	1·365723
140	153938	307876	461814	615752	769690	923628	1·077566	1·231504	1·385442
141	156145	312290	468435	624580	780725	936870	1·093015	1·249160	1·405305
142	158368	316736	475104	633472	791840	950208	1·108576	1·266944	1·425312
143	160606	321212	481818	642424	803030	963636	1·124242	1·284848	1·445454
144	162860	325720	488580	651440	814300	977160	1·140020	1·302880	1·465740
145	165130	330260	495390	660520	825650	990780	1·155910	1·321040	1·486170
146	167415	334830	502245	669660	837075	1·004490	1·171905	1·339320	1·506735
147	169717	339434	509151	678868	848585	1·018302	1·188019	1·357736	1·527453
148	172034	344068	516102	688136	860170	1·032204	1·204238	1·376272	1·548306
149	174366	348732	523098	697464	871830	1·046196	1·220562	1·394928	1·569294
150	176715	353430	530145	706860	883575	1·060290	1·237005	1·413720	1·590435

	10	20	30	40	50	60	70	80	90
090	·0636174	1272348	1908522	2544696	3180870	3817044	4453218	5089392	5725566
091	0650389	1300778	1951167	2601556	3251945	3902334	4552723	5203112	5853501
092	0664762	1329524	1994286	2659048	3323810	3988572	4653334	5318096	5982858
093	0679292	1358584	2037876	2717168	3396460	4075752	4755044	5434336	6113628
094	0693979	1387958	2081937	2775916	3469895	4163874	4857853	5551832	6245811
095	0708823	1417646	2126469	2835292	3544115	4252938	4961761	5670584	6379407
096	0723824	1447648	2171472	2895296	3619120	4342944	5066768	5790592	6514416
097	0738982	1477964	2216946	2955928	3694910	4433892	5172874	5911856	6650838
098	0754298	1508596	2262894	3017192	3771490	4525788	5280086	6034384	6788682
099	0769770	1539540	2309310	3079080	3848850	4618620	5388390	6158160	6927930
100	0785400	1570800	2356200	3141600	3927000	4712400	5497800	6283200	7068600
101	0801186	1602372	2403558	3204744	4005930	4807116	5608302	6409488	7210674
102	0817130	1634260	2451390	3268520	4085650	4902780	5719910	6537040	7354170
103	0833230	1666460	2499690	3332920	4166150	4999380	5832610	6665840	7499070
104	0849488	1698976	2548464	3397952	4247440	5096928	5946416	6795904	7645392
105	0865903	1731806	2597709	3463612	4329515	5195418	6061321	6927224	7793127
106	0882475	1764950	2647425	3529900	4412375	5294850	6177325	7059800	7942275
107	0899204	1798408	2697612	3596816	4496020	5395224	6294428	7193632	8092836
108	0916090	1832180	2748270	3664360	4580450	5496540	6412630	7328720	8244810
109	0933133	1866266	2799399	3732532	4665665	5598798	6531931	7465064	8398197
110	0950334	1900668	2851002	3801336	4751670	5702004	6652338	7602672	8553006
111	0967691	1935382	2903073	3870764	4838455	5806146	6773837	7741528	8709219
112	0985205	1970410	2955615	3940820	4926025	5911230	6896435	7881640	8866845
113	100287	200574	300861	401148	501435	601722	702009	802296	902583
114	102070	204140	306210	408280	510350	612420	714490	816560	918630
115	103869	207738	311607	415476	519345	623214	727083	830952	934821
116	105683	211366	317049	422732	528415	634098	739781	845464	951147
117	107513	215026	322539	430052	537565	645078	752591	860104	967617
118	109359	218718	328077	437436	546795	656154	765513	874872	984231
119	111220	222440	333660	444880	556100	667320	778540	889760	1·000980
120	113097	226194	339291	452388	565485	678582	791679	904776	1·017873

	10	20	30	40	50	60	70	80	90
060	0282744	0565488	0848232	1130976	1413720	1696464	1979208	2261952	2544696
061	0292247	0584494	0876741	1168988	1461235	1753482	2045729	2337976	2630223
062	0301907	0603814	0905721	1207628	1509535	1811442	2113349	2415256	2717163
063	0311725	0623450	0935175	1246900	1558625	1870350	2182075	2493800	2805525
064	0321699	0643398	0965097	1286796	1608495	1930194	2251893	2573592	2895291
065	0331831	0663662	0995493	1327324	1659155	1990986	2322817	2654648	2986479
066	0342199	0684398	1026597	1368796	1710995	2053194	2395393	2737592	3079791
067	0352566	0705132	1057698	1410264	1762830	2115396	2467962	2820528	3173094
068	0363168	0726336	1089504	1452672	1815840	2179008	2542176	2905344	3268512
069	0373928	0747856	1121784	1495712	1869640	2243568	2617496	2991424	3365352
070	0384846	0769692	1154538	1539384	1924230	2309076	2693922	3078768	3463614
071	0395960	0791840	1187760	1583680	1979600	2375520	2771440	3167360	3563280
072	0407151	0814302	1221453	1628604	2035755	2442906	2850057	3257208	3664359
073	0418539	0837078	1255617	1674156	2092695	2511234	2929773	3348312	3766851
074	0430065	0860170	1290255	1720340	2150425	2580510	3010595	3440680	3870765
075	0441787	0883574	1325361	1767148	2208935	2650722	3092509	3534296	3976083
076	0453647	0907294	1360941	1814588	2268235	2721882	3175529	3629176	4082823
077	0465603	0931326	1396989	1862652	2328315	2793978	3259641	3725304	4190967
078	0477837	0955674	1433511	1911348	2389185	2867022	3344859	3822696	4300533
079	0490166	0980336	1470504	1960672	2450840	2941008	3431176	3921344	4411512
080	0502656	1005312	1507968	2010624	2513280	3015936	3518592	4021248	4523904
081	0515300	1030600	1545900	2061200	2576500	3091800	3607100	4122400	4637700
082	0528102	1056204	1584306	2112408	2640510	3168612	3696714	4224816	4752918
083	0541062	1082124	1623186	2164248	2705310	3246372	3787434	4328496	4869558
084	0554178	1108356	1662534	2216712	2770890	3325068	3879246	4433424	4987602
085	0567451	1134902	1702353	2269804	2837255	3404706	3972157	4539608	5107059
086	0580881	1161762	1742643	2323524	2904405	3485286	4066167	4647048	5227929
087	0594469	1188938	1783407	2377876	2972345	3566814	4161283	4755752	5350221
088	0608213	1216426	1824639	2432852	3041065	3649278	4257491	4865704	5473917
089	0622115	1244230	1866345	2488460	3110575	3732690	4354805	4976920	5599035
090	0636174	1272348	1908522	2544696	3180870	3817044	4453218	5089392	5725566

	10	20	30	40	50	60	70	80	90
·030	·00706860	·01413720	·02120580	02827440	03534300	04241160	04948020	05654880	06361740
·031	00754769	01509538	02264307	03019076	03773845	04528614	05283383	06038152	06792921
·032	00804249	01608498	02412747	03216996	04021245	04825494	05629743	06433992	07238241
033	00855300	01710600	02565900	03421200	04276500	05131800	05987100	06842400	07697700
034	00907922	01815844	02723766	03631688	04539610	05447532	06355454	07263376	08171298
035	00962115	01924230	02886345	03848460	04810575	05772690	06734805	07696920	08659035
036	0101787	0203574	0305361	0407148	0508935	0610722	0712509	0814296	0916083
037	0107521	0215042	0322563	0430084	0537605	0645126	0752647	0860160	0967689
038	0113411	0226822	0340233	0453644	0567055	0680466	0793877	0907288	1020699
039	0119459	0238918	0358377	0477836	0597295	0716754	0836213	0955672	1075131
040	0125664	0251328	0376992	0502656	0628320	0753984	0879648	1005312	1130976
041	0132025	0264050	0396075	0528100	0660125	0792150	0924175	1056200	1188225
042	0138544	0277088	0415632	0554176	0692720	0831264	0969808	1108352	1246896
043	0145220	0290440	0435660	0580880	0726100	0871320	1016540	1161760	1306980
044	0152053	0304106	0456159	0608212	0760265	0912318	1064371	1216424	1368477
045	0159043	0318086	0477129	0636172	0795215	0954258	1113301	1272344	1431387
046	0166190	0332380	0498570	0664760	0830950	0997140	1163330	1329520	1495710
047	0173494	0346988	0520482	0693976	0867470	1040964	1214458	1387952	1561446
048	0180956	0361912	0542868	0723824	0904780	1085736	1266692	1447648	1628604
049	0188574	0377148	0565722	0754296	0942870	1131444	1320018	1508592	1697166
050	0196350	0392700	0589050	0785400	0981750	1178100	1374450	1570800	1767150
051	0204282	0408564	0612846	0817128	1021410	1225692	1429974	1634256	1838538
052	0212372	0424744	0637116	0849488	1061860	1274232	1486604	1698976	1911348
053	0220618	0441236	0661854	0882472	1103090	1323708	1544326	1764944	1985562
054	0229022	0458044	0687066	0916088	1145110	1374132	1603154	1832176	2061198
055	0237583	0475166	0712749	0950332	1187915	1425498	1663081	1900664	2138247
056	0246301	0492602	0738903	0985204	1231505	1477806	1724107	1970408	2216709
057	0255176	0510352	0765528	1020704	1275880	1531056	1786232	2041408	2296584
058	0264208	0528416	0792624	1056832	1321040	1585248	1849456	2113664	2377872
059	0273397	0546794	0820191	1093588	1366985	1640382	1913779	2187176	2460573
060	0282744	0565488	0848232	1130976	1413720	1696464	1979208	2261952	2544696

	10	20	30	40	50	60	70	80	90
·001	·00000785 4	·000015708	·000023562	000031416	000039270	000047124	·000054978	000062832	000070686
·002	·000031416	·000062832	·000094248	000125664	000157080	000188496	000219912	000251328	000282744
·003	·000070686	·000141372	·000212058	000282744	000353430	000424116	000494802	000565488	000636174
·004	·000125664	·000251328	·000376992	000502656	000628320	000753984	000879648	001005312	001130976
·005	·000196350	·000392700	·000589050	000785400	000981750	001178100	001374450	001570800	001767150
·006	·000282744	·000565488	·000848232	001130976	001413720	001696464	001979208	002261952	002544696
·007	·000384846	·000769692	·001154538	001539384	001924230	002309076	002693922	003078768	003463614
·008	·000502656	·001005312	001507968	002010624	002513280	003015936	003518592	004021248	004523904
·009	·000636174	·001272348	001908522	002544696	003180870	003817044	004453218	005089392	005725566
·010	·000785400	·001570800	·002356200	003141600	003927000	004712400	005497800	006283200	007068600
·011	000950334	·001900668	002851002	003801336	004751670	005702004	006652338	007602672	008553006
·012	·001135997	·002271994	·003392991	004523988	005654985	006785982	007916979	009047976	010178973
·013	001332732	·002654644	·003981966	005309288	006636660	007963932	009291204	010618476	011945748
·014	001539384	·003078768	·004618152	006157536	007696920	009236304	010775688	012315072	013854456
·015	001767150	·003534300	005301450	007068600	008835750	010602900	012370050	014137200	015904350
·016	002010624	·004021248	·006031872	008042496	010053120	012063744	014074368	016084992	018095616
·017	·002269800	·004539600	·006809400	009079200	011349000	013618800	015888600	018158400	020428200
·018	002544469	·005089938	·007634907	010178876	012723345	015267814	017812283	020356752	022901221
·019	002835529	·005670058	·008505587	011341116	014176645	017011174	019846703	022682232	025517761
·020	·003141600	·006283200	009424800	012566400	015708000	018849600	021991200	025132800	028274400
·021	003463614	·006927228	010390842	013854456	017318070	020781684	024245270	027708856	031172442
·022	·003801336	·007602672	011403999	015205332	019006665	022807998	026609331	030410664	034211997
·023	·004154766	·008309532	012464298	016619064	020773830	024928596	029083362	033238128	037392894
·024	004523904	·009047808	013571712	018095616	022619520	027143424	031667328	036191232	040715136
·025	004908750	·009817500	014726250	019635000	024543750	029452500	034361250	039270000	044178750
·026	005309304	·010618608	015927912	021237216	026546520	031855824	037165128	042474432	047783736
·027	·005725566	·011451132	017176698	022902264	028627830	034353396	040078962	045804528	051530094
·028	·006157536	·012315072	018472608	024630144	030787680	036945216	043102752	049260288	055417824
·029	·006605214	·013210428	019815642	026420856	033026070	039631284	046236498	052841712	059446926
·030	·007068600	·014137200	021205800	028274400	035343000	042411600	049480200	056548800	063617400

Tables A. Calculated by Blythe Horsburgh. For chapter I page 45

Tables giving the Orthogonal Area of Steel in a Rope

Column i. = diameter of wire in inches
Row i = no of wires in rope.
The entries give the orthogonal area of the steel in the rope for the given diameter and the given number of wires.

[In the construction of the tables the last digit can not be depended on]

Ex:

Find the orthogonal area of steel in a rope of 124 wires each of .043" diameter.

From the table we have

.145220
.029044
.005809
.180073 □" = orthogonal area

Compare

By Calculation

$$A = \frac{n\pi d^2}{4} = \frac{124 \times \pi \times (.043)^2}{4} = 31 \times \pi \times (.043)^2$$

Taking logs

1.4913617	1.4913617
4971499	4971499
$2(\bar{2}.6334685)$	$\bar{3}.2669370$
	$\bar{1}.2555486$ antilog = .1800730 □".
	14
	72

T □"	Kg □ m/m	T □"	Kg □ m/m
121	190·5670	151	237·8150
122	192·1419	152	239·3899
123	193·7169	153	240·9649
124	195·2918	154	242·5398
125	196·8667	155	244·1147
126	198·4417	156	245·6897
127	200·0166	157	247·2646
128	201·5915	158	248·8395
129	203·1665	159	250·4145
130	204·7414	160	251·9894
131	206·3163	161	253·5643
132	207·8913	162	255·1393
133	209·4662	163	256·7142
134	211·0411	164	258·2891
135	212·6161	165	259·8641
136	214·1910	166	261·4390
137	215·7659	167	263·0139
138	217·3409	168	264·5889
139	218·9158	169	266·1638
140	220·4907	170	267·7387
141	222·0657	171	269·3137
142	223·6406	172	270·8886
143	225·2155	173	272·4635
144	226·7905	174	274·0385
145	228·3654	175	275·6134
146	229·9403	176	277·1883
147	231·5153	177	278·7633
148	233·0902	178	280·3382
149	234·6651	179	281·9132
150	236·2401	180	283·4881

To"	Kg □m/m	To"	Kg □m/m	To"	Kg □m/m	To"	Kg □m/m
1	1·57493	31	48·82295	61	96·07096	91	143·3190
2	3·14987	32	50·39788	62	97·64590	92	144·8939
3	4·72480	33	51·97282	63	99·22083	93	146·4688
4	6·29974	34	53·54775	64	100·7958	94	148·0438
5	7·87467	35	55·12268	65	102·3707	95	149·6187
6	9·44960	36	56·69762	66	103·9456	96	151·1936
7	11·02454	37	58·27255	67	105·5206	97	152·7686
8	12·59947	38	59·84748	68	107·0955	98	154·3435
9	14·17440	39	61·42242	69	108·6704	99	155·9184
10	15·74934	40	62·99735	70	110·2454	100	157·4934
11	17·32427	41	64·57229	71	111·8203	101	159·0683
12	18·89920	42	66·14722	72	113·3952	102	160·6432
13	20·47414	43	67·72215	73	114·9702	103	162·2182
14	22·04907	44	69·29709	74	116·5451	104	163·7931
15	23·62401	45	70·87202	75	118·1200	105	165·3680
16	25·19894	46	72·44695	76	119·6950	106	166·9430
17	26·77387	47	74·02189	77	121·2699	107	168·5179
18	28·34881	48	75·59682	78	122·8448	108	170·0929
19	29·92374	49	77·17176	79	124·4198	109	171·6678
20	31·49868	50	78·74669	80	125·9947	110	173·2427
21	33·07361	51	80·32162	81	127·5696	111	174·8177
22	34·64854	52	81·89656	82	129·1446	112	176·3926
23	36·22348	53	83·47149	83	130·7195	113	177·9675
24	37·79841	54	85·04643	84	132·2944	114	179·5425
25	39·37335	55	86·62136	85	133·8694	115	181·1174
26	40·94828	56	88·19629	86	135·4443	116	182·6923
27	42·52321	57	89·77123	87	137·0192	117	184·2673
28	44·09815	58	91·34616	88	138·5942	118	185·8422
29	45·67308	59	92·92109	89	140·1691	119	187·4171
30	47·24801	60	94·49603	90	141·7440	120	188·9921

Table C. Calculated by Colin Stoneburgh.

Conversion Table

Tons per square inch

to

Kilogrammes per square millimetre.

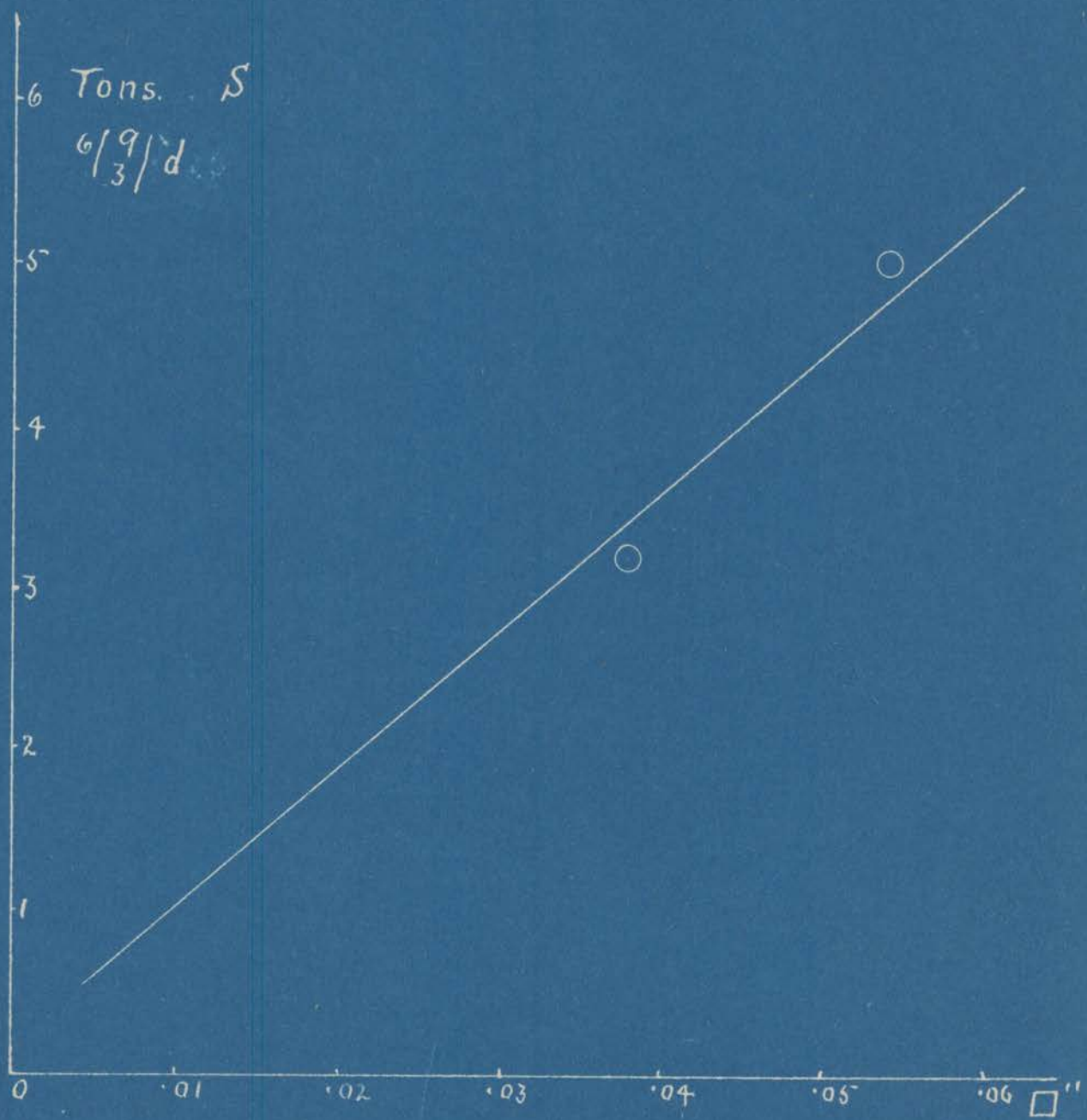
For the range of values necessary in rolling

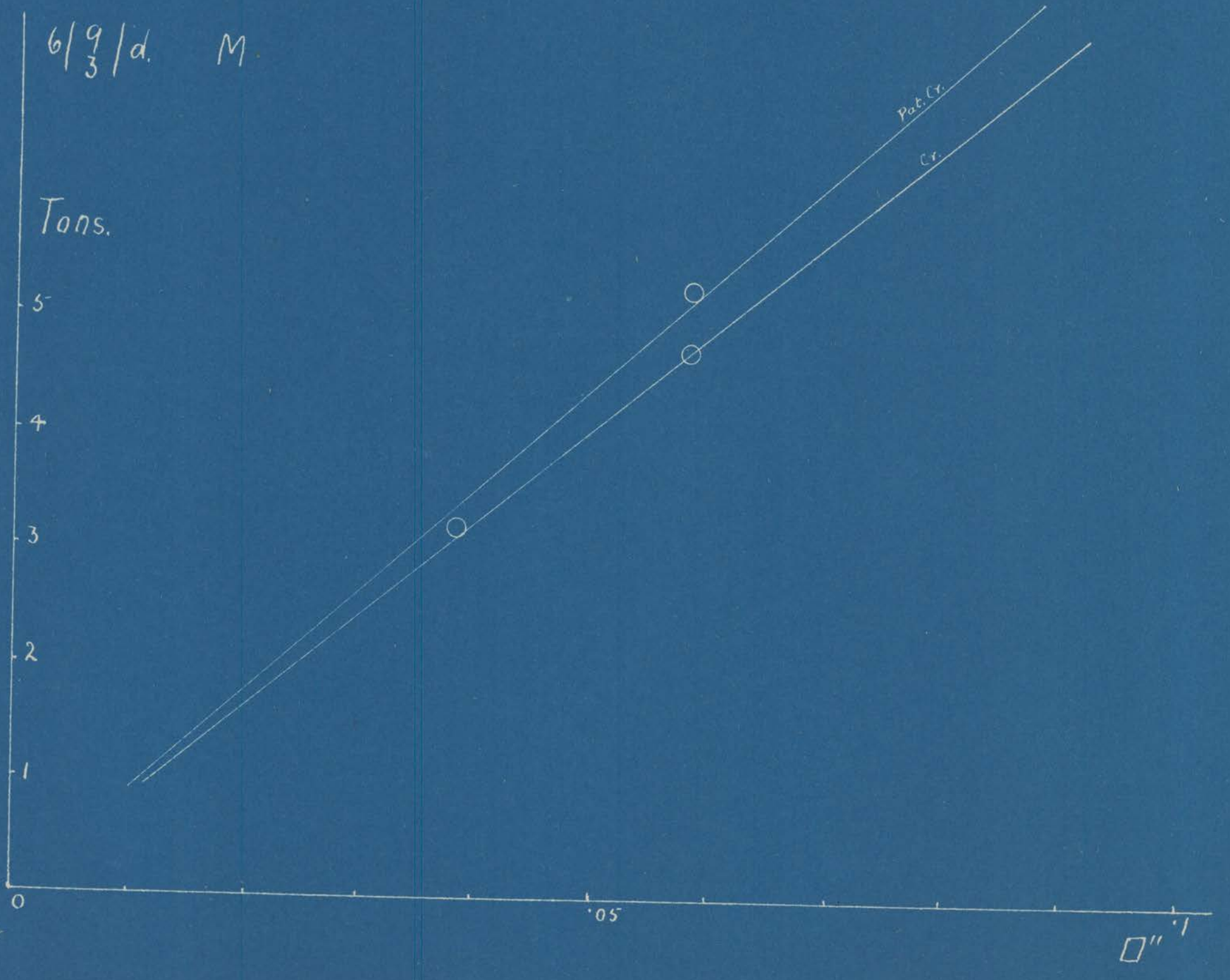
For Chapter III

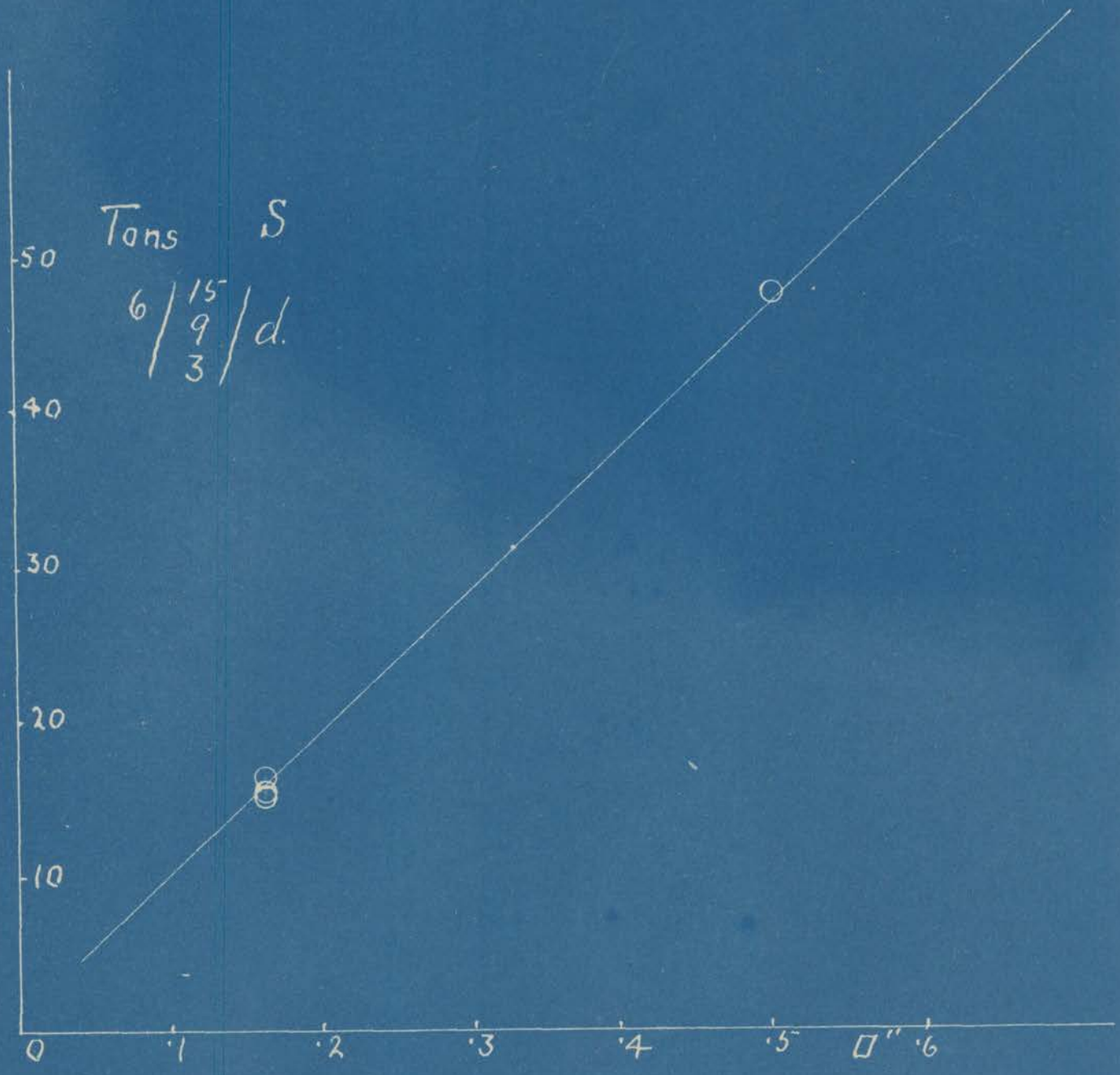
To face pg 8.

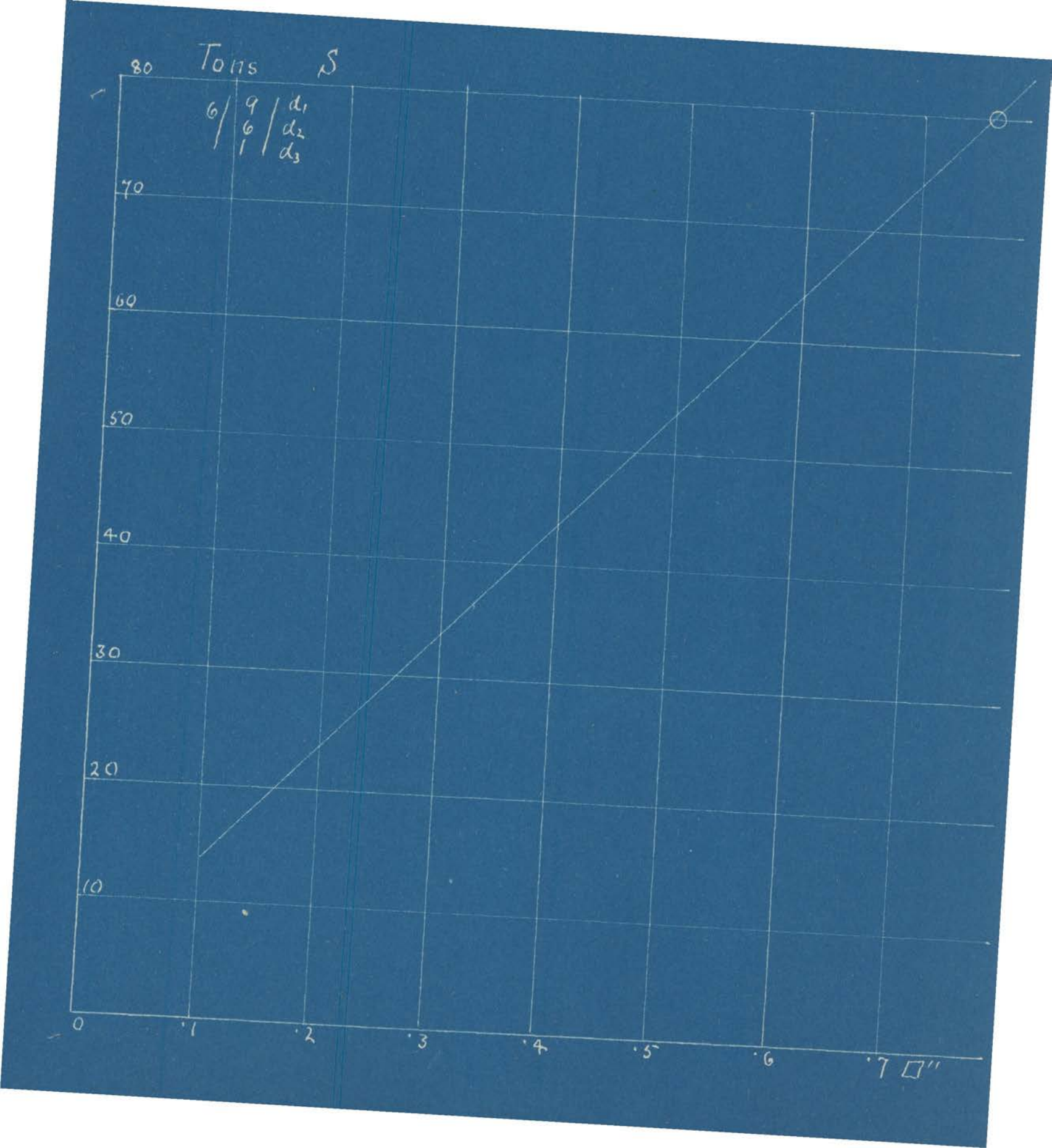
Kg □m/m	T □"	Kg □m/m	T □"	Kg □m/m	T □"	Kg □m/m	T □"
121	76·8286	151	95·8770	181	114·9255	211	133·9739
122	77·4636	152	96·5120	182	115·5604	212	134·6088
123	78·0985	153	97·1469	183	116·1954	213	135·2438
124	78·7335	154	97·7819	184	116·8303	214	135·8787
125	79·3684	155	98·4168	185	117·4653	215	136·5137
126	80·0034	156	99·0518	186	118·1002	216	137·1486
127	80·6383	157	99·6867	187	118·7351	217	137·7836
128	81·2733	158	100·3217	188	119·3701	218	138·4185
129	81·9082	159	100·9566	189	120·0050	219	139·0535
130	82·5432	160	101·5916	190	120·6400	220	139·6884
131	83·1781	161	102·2265	191	121·2749	221	140·3234
132	83·8130	162	102·8614	192	121·9099	222	140·9583
133	84·4480	163	103·4964	193	122·5448	223	141·5933
134	85·0829	164	104·1314	194	123·1798	224	142·2282
135	85·7179	165	104·7663	195	123·8147	225	142·8631
136	86·3528	166	105·4013	196	124·4497	226	143·4981
137	86·9878	167	106·0362	197	125·0846	227	144·1330
138	87·6227	168	106·6712	198	125·7196	228	144·7680
139	88·2577	169	107·3061	199	126·3545	229	145·4029
140	88·8926	170	107·9410	200	126·9895	230	146·0379
141	89·5276	171	108·5760	201	127·6244	231	146·6728
142	90·1625	172	109·2109	202	128·2594	232	147·3078
143	90·7975	173	109·8459	203	128·8943	233	147·9427
144	91·4324	174	110·4808	204	129·5293	234	148·5777
145	92·0674	175	111·1158	205	130·1642	235	149·2126
146	92·7023	176	111·7507	206	130·7991	236	149·8476
147	93·3373	177	112·3857	207	131·4341	237	150·4825
148	93·9722	178	113·0206	208	132·0690	238	151·1175
149	94·6072	179	113·6556	209	132·7040	239	151·7524
150	95·2421	180	114·2905	210	133·3389	240	152·3874

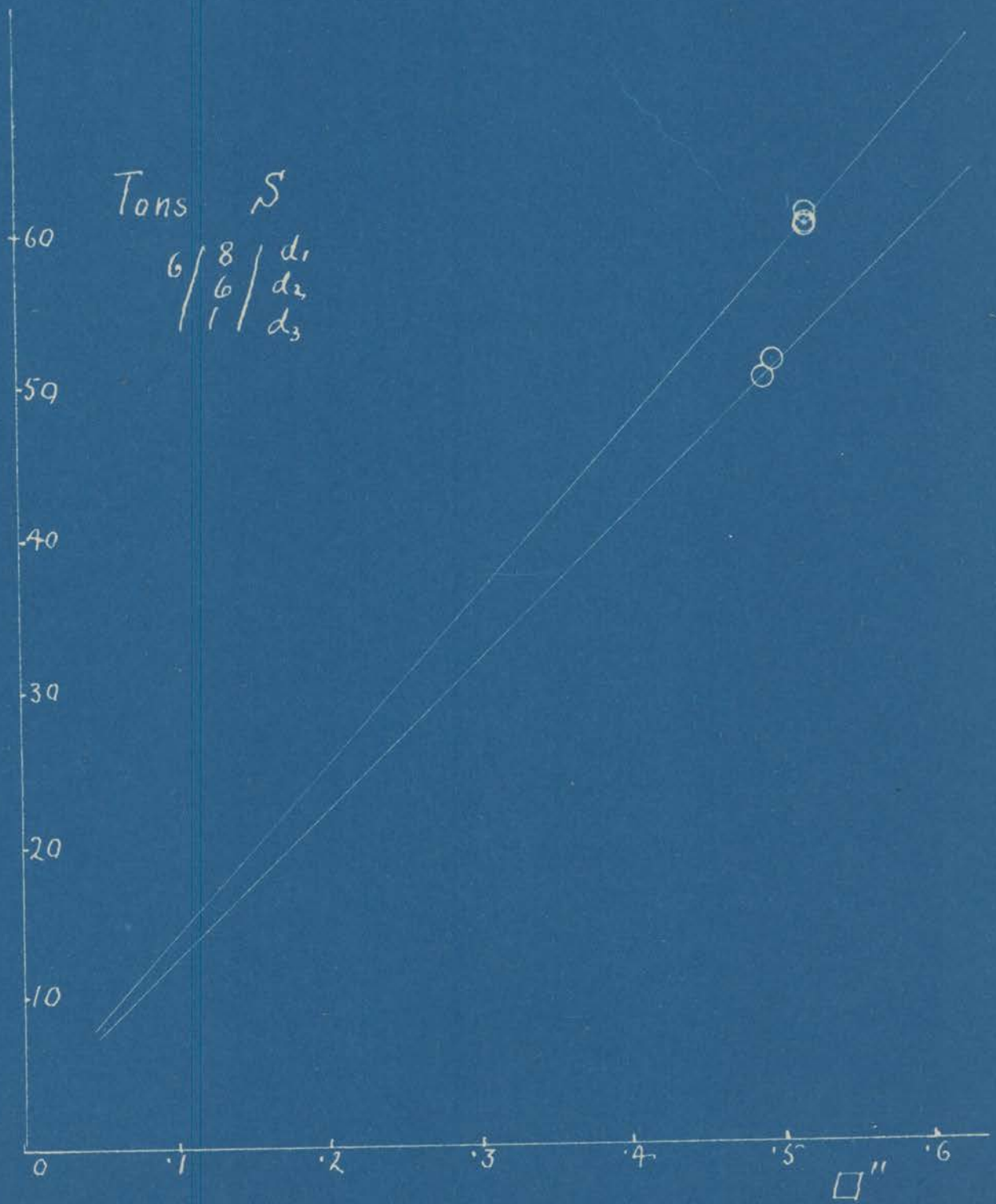
Kg □m/m	T □"	Kg □m/m	T □"	Kg □m/m	T □"	Kg □m/m	T □"
1	·634947	31	19·6834	61	38·7318	91	57·7802
2	1·269895	32	20·3183	62	39·3667	92	58·4152
3	1·904842	33	20·9533	63	40·0017	93	59·0501
4	2·539789	34	21·5882	64	40·6366	94	59·6850
5	3·174737	35	22·2232	65	41·2716	95	60·3200
6	3·809684	36	22·8581	66	41·9065	96	60·9549
7	4·444631	37	23·4931	67	42·5415	97	61·5899
8	5·079579	38	24·1280	68	43·1764	98	62·2248
9	5·714526	39	24·7629	69	43·8114	99	62·8598
10	6·349473	40	25·3979	70	44·4463	100	63·4947
11	6·98442	41	26·0328	71	45·0812	101	64·1297
12	7·61937	42	26·6678	72	45·7162	102	64·7646
13	8·25432	43	27·3027	73	46·3512	103	65·3996
14	8·88926	44	27·9377	74	46·9861	104	66·0345
15	9·52420	45	28·5726	75	47·6210	105	66·6695
16	10·15916	46	29·2076	76	48·2560	106	67·3044
17	10·7941	47	29·8425	77	48·8909	107	67·9394
18	11·4291	48	30·4775	78	49·5259	108	68·5743
19	12·0640	49	31·1124	79	50·1608	109	69·2093
20	12·6989	50	31·7474	80	50·7958	110	69·8442
21	13·3339	51	32·3823	81	51·4307	111	70·4792
22	13·9688	52	33·0173	82	52·0657	112	71·1141
23	14·6038	53	33·6522	83	52·7006	113	71·7490
24	15·2387	54	34·2872	84	53·3356	114	72·3840
25	15·8737	55	34·9221	85	53·9705	115	73·0189
26	16·5086	56	35·5570	86	54·6055	116	73·6539
27	17·1436	57	36·1920	87	55·2404	117	74·2888
28	17·7785	58	36·8269	88	55·8754	118	74·9238
29	18·4135	59	37·4619	89	56·5103	119	75·5587
30	19·0484	60	38·0968	90	57·1453	120	76·1937

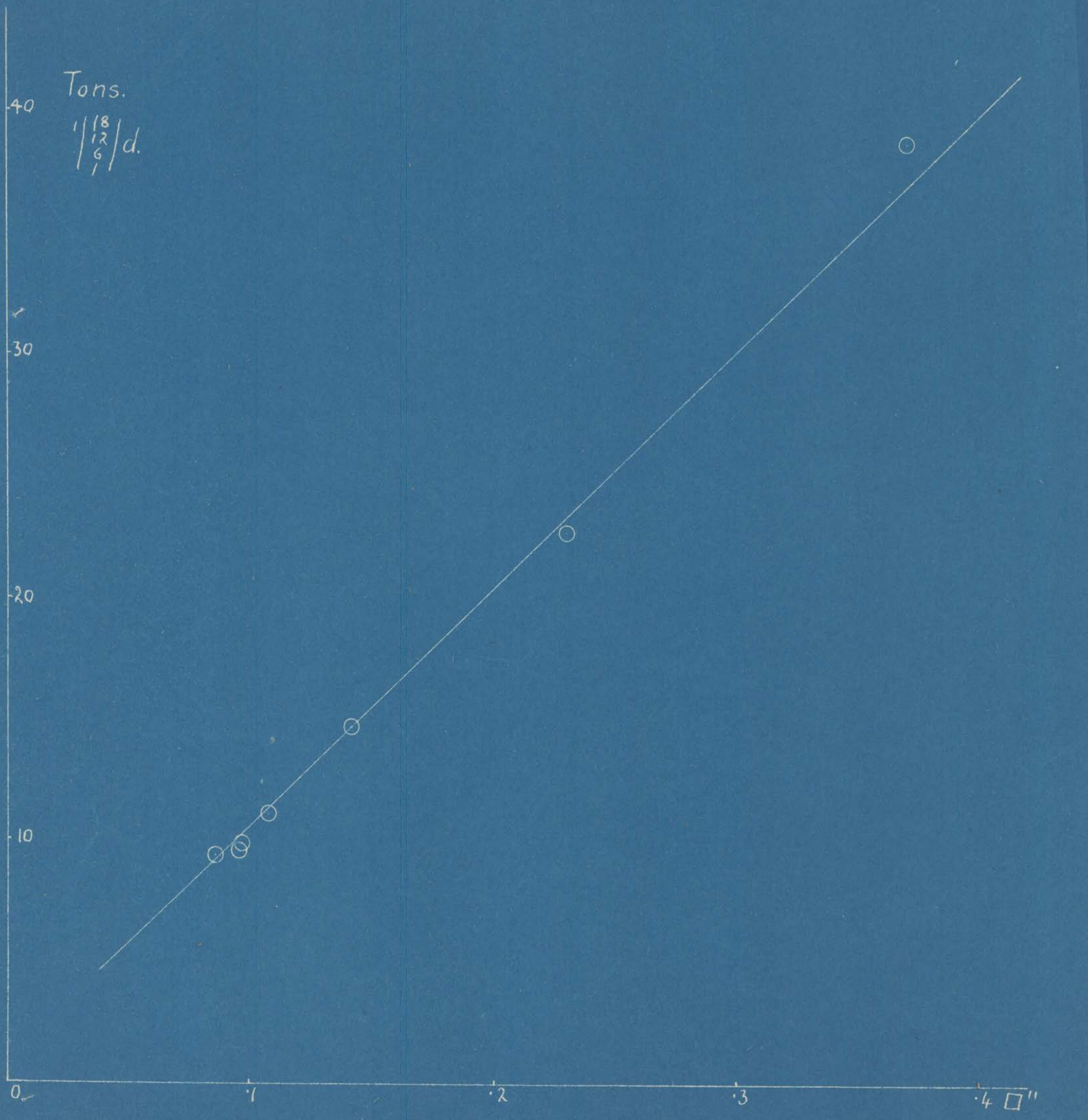

Tons. S
6/9/3/d
6
5
4
3
2
1
0
·01
·02
·03
·04
·05
·06
□"

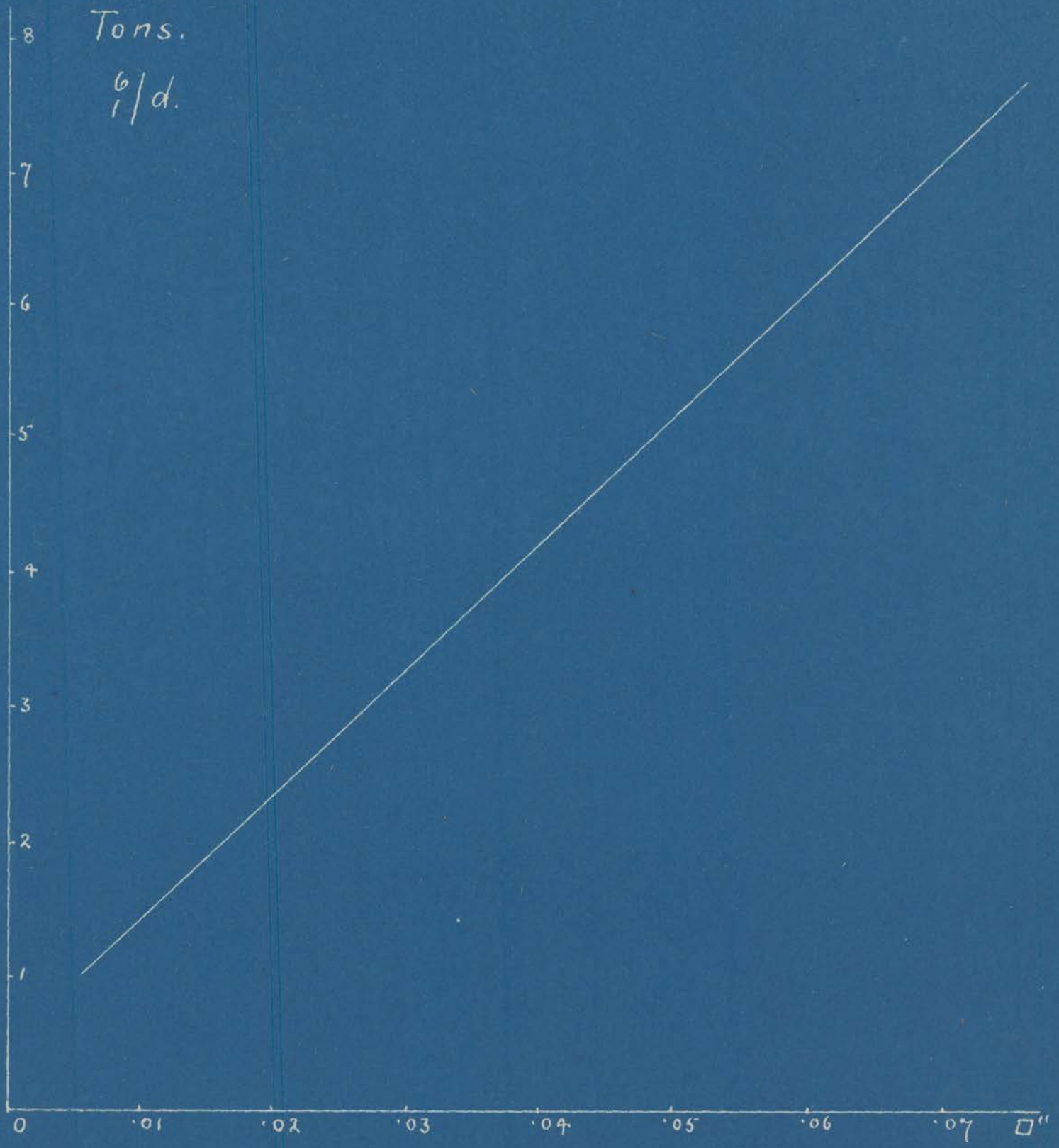

6/9/3/d. M.
Tons.
5
4
3
2
1
0
·05
·1
□"
Pat. Cr.
Cr.


Tons S
6 / 15
9
3 / d.
50
40
30
20
10
0
·1
·2
·3
·4
·5
·6
□"


Tons S
80
70
60
50
40
30
20
10
0
·1
·2
·3
·4
·5
·6
·7 □"
6 | 9 | d1
6 | 6 | d2
1 | 1 | d3


Tons S
6 | 8 | d1
6 | 6 | d2
1 | 1 | d3
60
50
40
30
20
10
0
·1
·2
·3
·4
·5
·6
□"


Tons.
40
30
20
10
0
·1
·2
·3
·4 □"
1 | 18 12 6 1 | d.

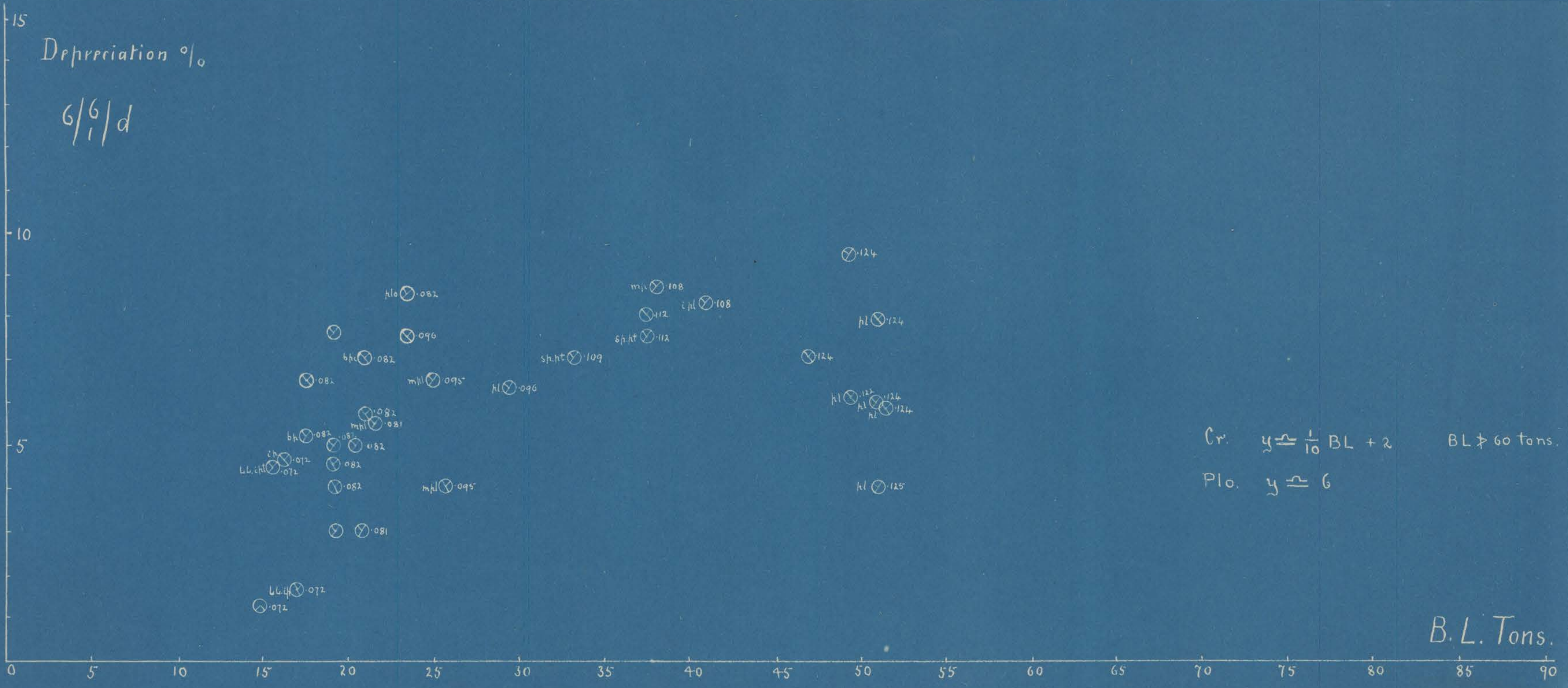

Tons.
6/1 d.
8
7
6
5
4
3
2
1
0
·01
·02
·03
·04
·05
·06
·07
□"

Group of Diagrams of Rope Tests.

Various Constructions

Thirteen Sheets.

For Chapter V No. (ii)



Depreciation %
6/6/1/d
Cr. y = 1/10 BL + 2
BL ≯ 60 tons.
Plo. y = 6
B. L. Tons.
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90
5 10 15

6/19/d. Plough.

Tons.

80

70

60

50

30

20

10

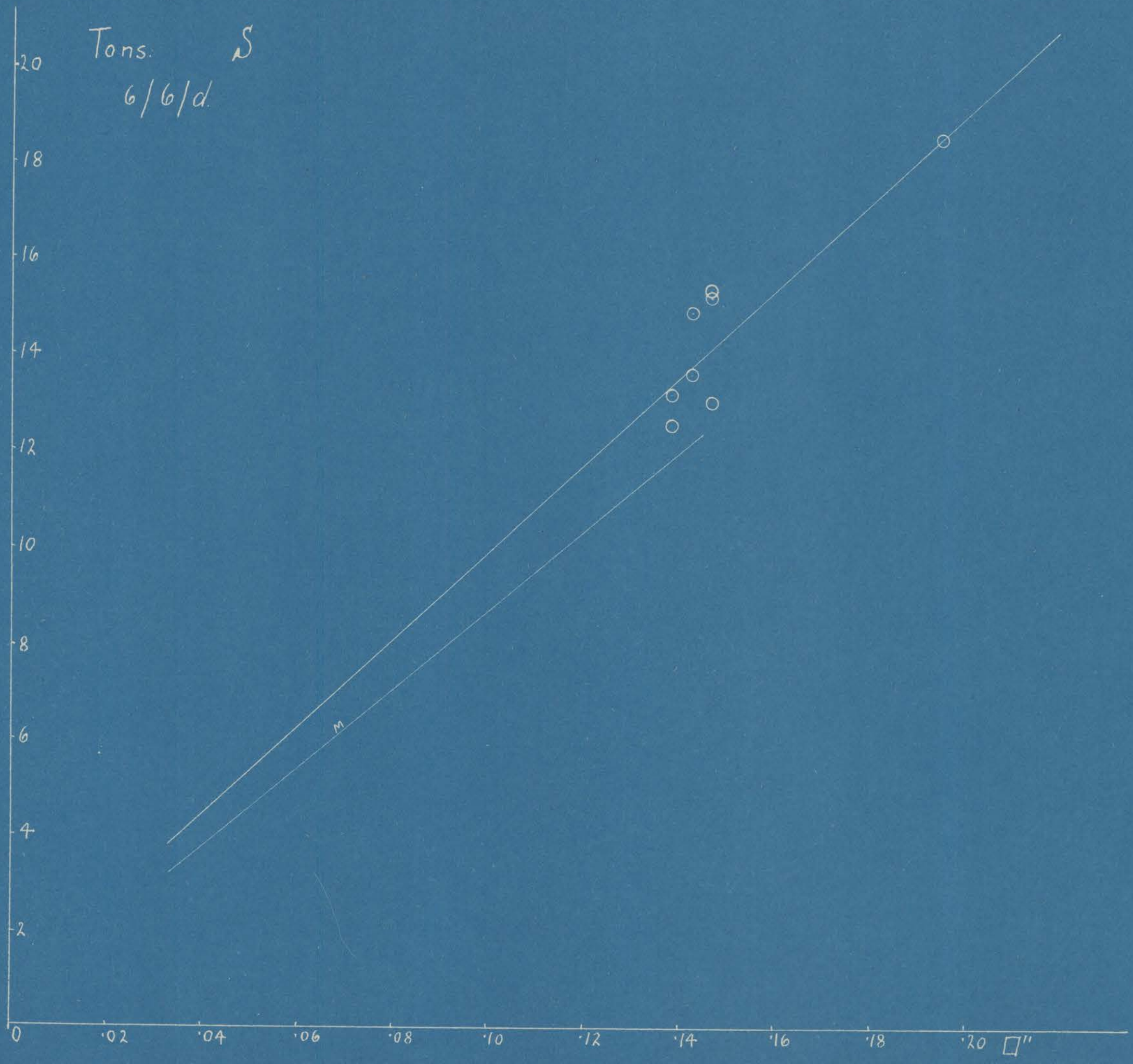
0 ·1 ·2 ·3 ·4 ·5 ·6 ·7 ·8 ·9 1·0 □"

Tons. S

6 | 24 18 12 6 1 | d.

100
90
80
70
60
50
40
30
20
10

0 ·1 ·2 ·3 ·4 ·5 ·6 ·7 ·8 ·9 1·0 □"


Tons.
6/6/d.
S
M
20
18
16
14
12
10
8
6
4
2
0
·02
·04
·06
·08
·10
·12
·14
·16
·18
·20
□"

S ⊕ 6/15/9/d.

90 Tons

80

70

60

50

40

30

20

10

XVII TESTS.

0 ·1 ·2 ·3 ·4 ·5 ·6 ·7 ·8 ·9 1·0 1·1 □"

Tons. S.

6 | 10
6 | d.
1

Mean of 25 Tests.

120
110
100
90
80
70
60
50
40
30
20
10

0 ·1 ·2 ·3 ·4 ·5 ·6 ·7 ·8 ·9 1·0 1·1 1·2 1·3 □"

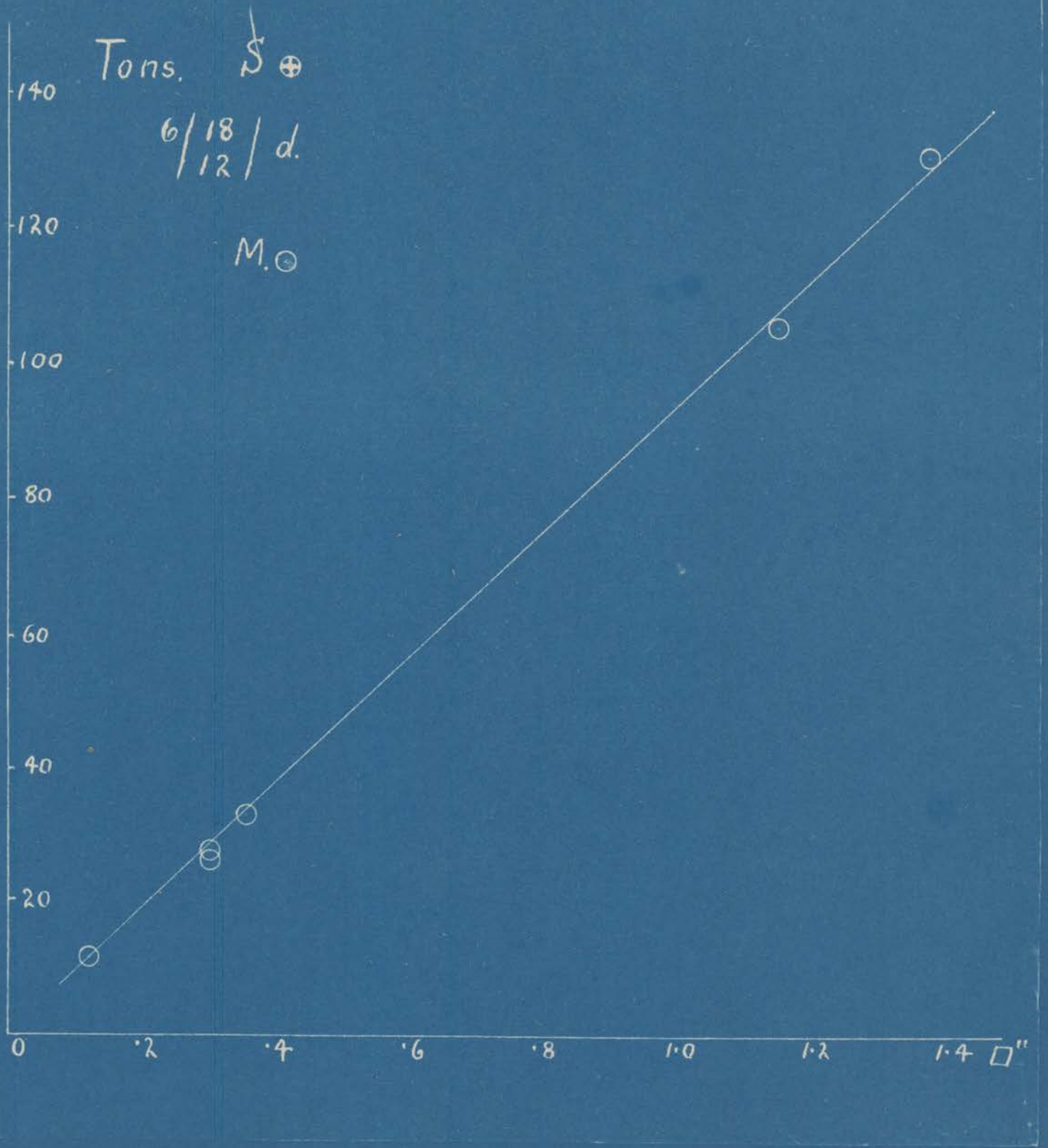

Tons. S ⊕
6/18/12/d.
M. ⊙
140
120
100
80
60
40
20
0
·2
·4
·6
·8
1·0
1·2
1·4 □"

Table B.

Calculated by Edw. Horsburgh.

Conversion Table

Kilogrammes per square millimetre

to

Tons per square inch

For the range of values necessary in rolling

For Chapter III

To face page 98

BIBL. UNIV. EDINBURGEN EX

Tons

6/12/d. M.

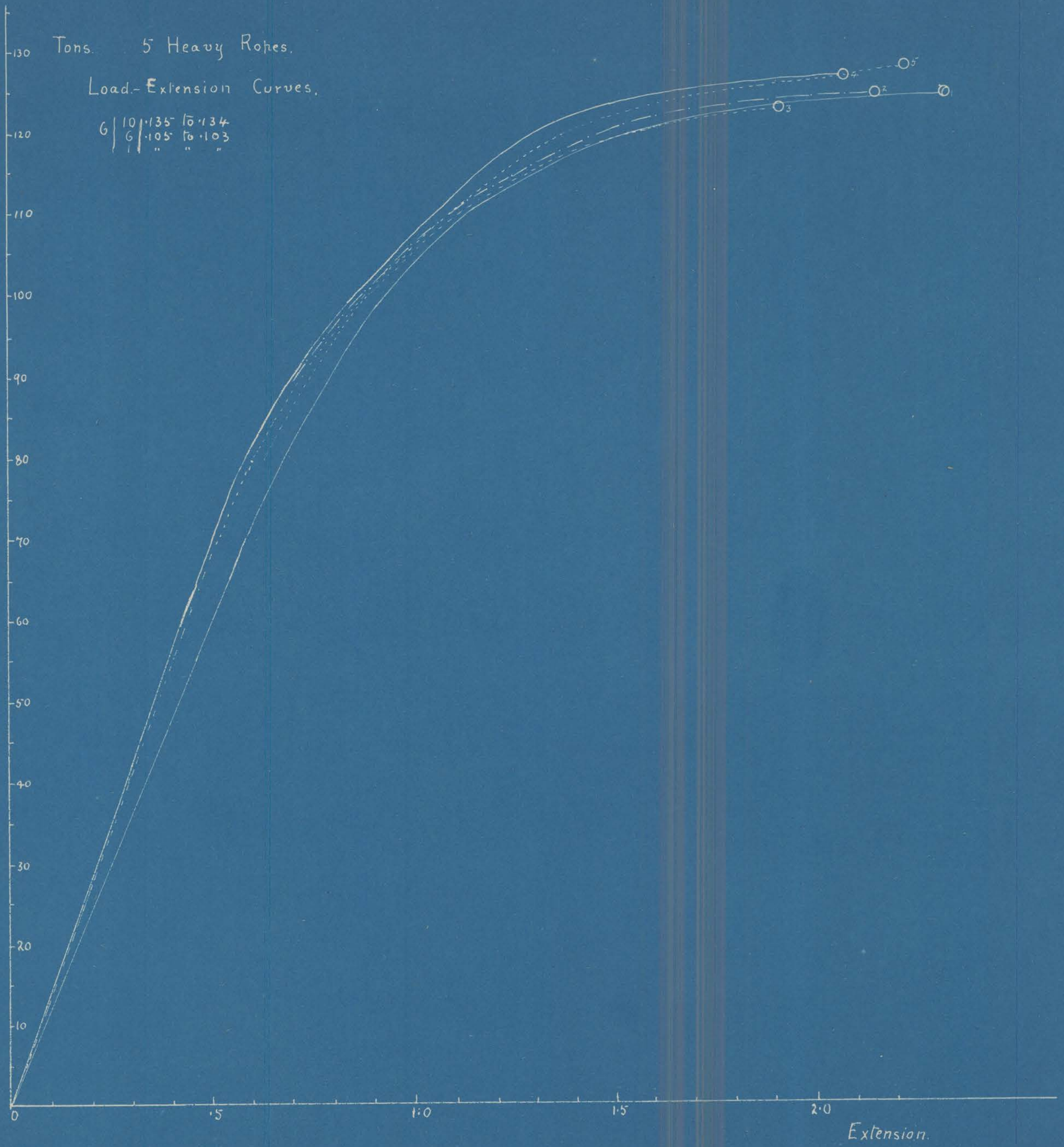
35
30
25
20
15
10
5

0 .05 .10 .15 .20 .25 .30 .35 .40 .45 □"

Tons. 5" Heavy Ropes.

Load - Extension Curves.

G | 10 | ·135" to ·134
G | 6 | ·105" to ·103
" " "

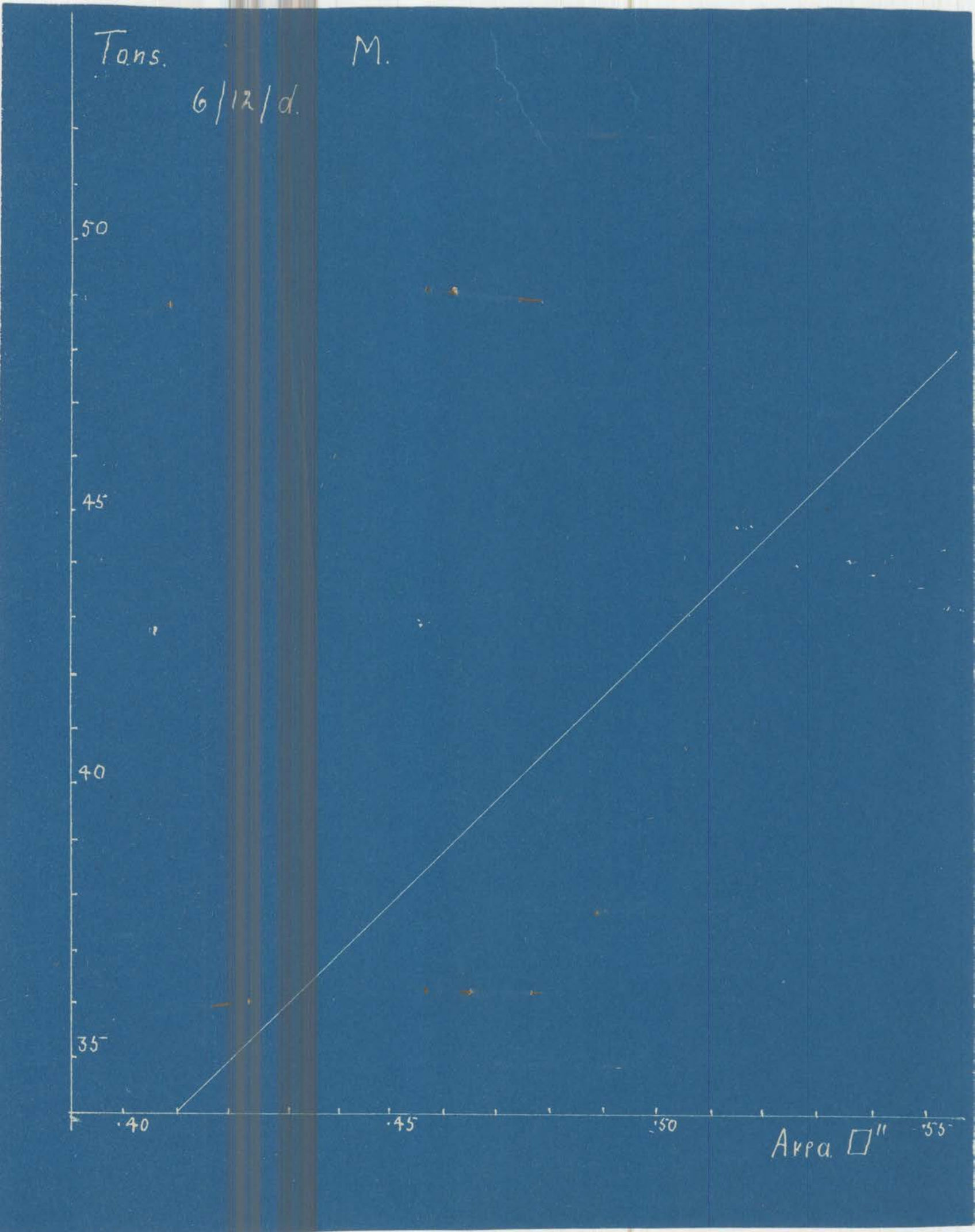


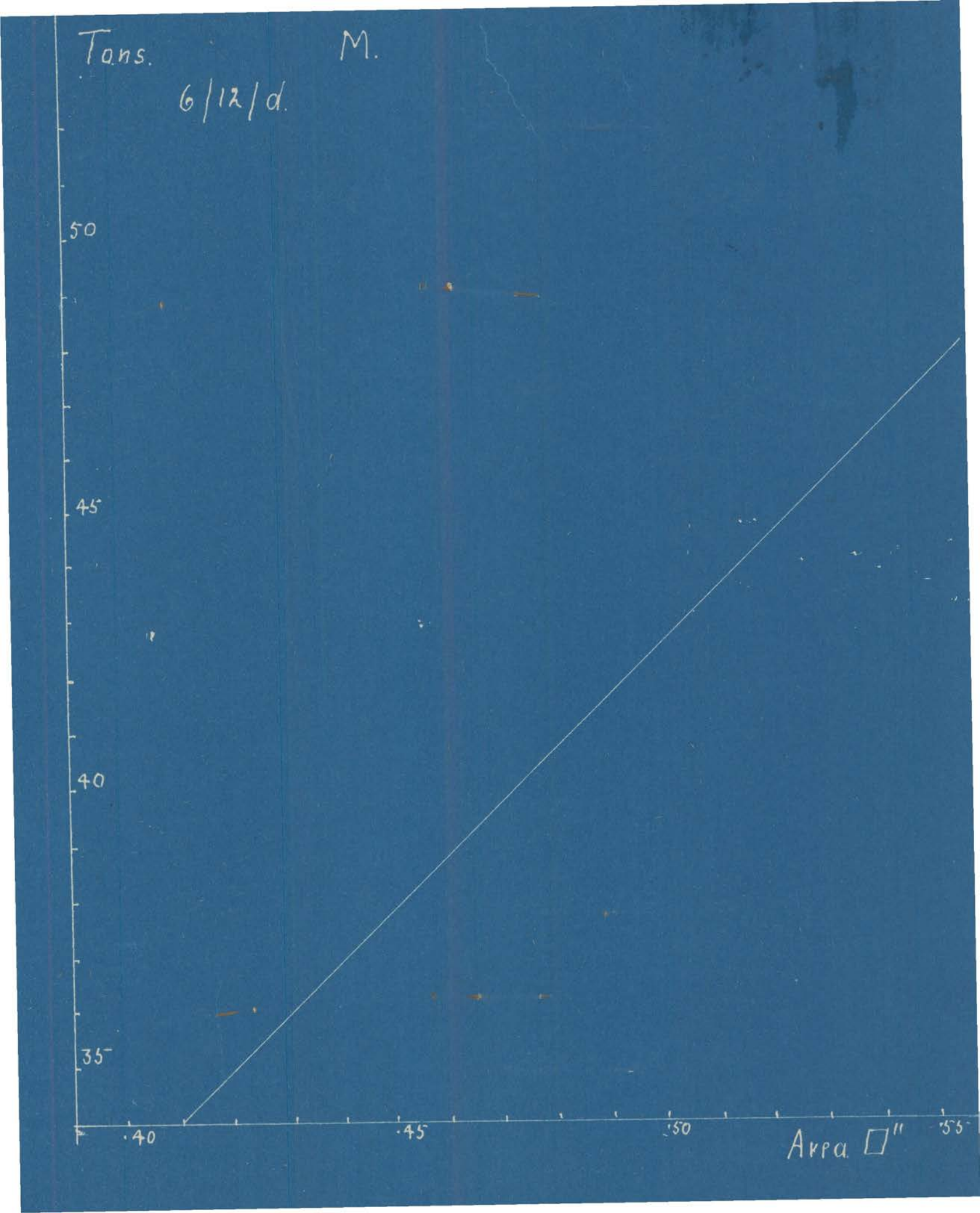
Tons. S

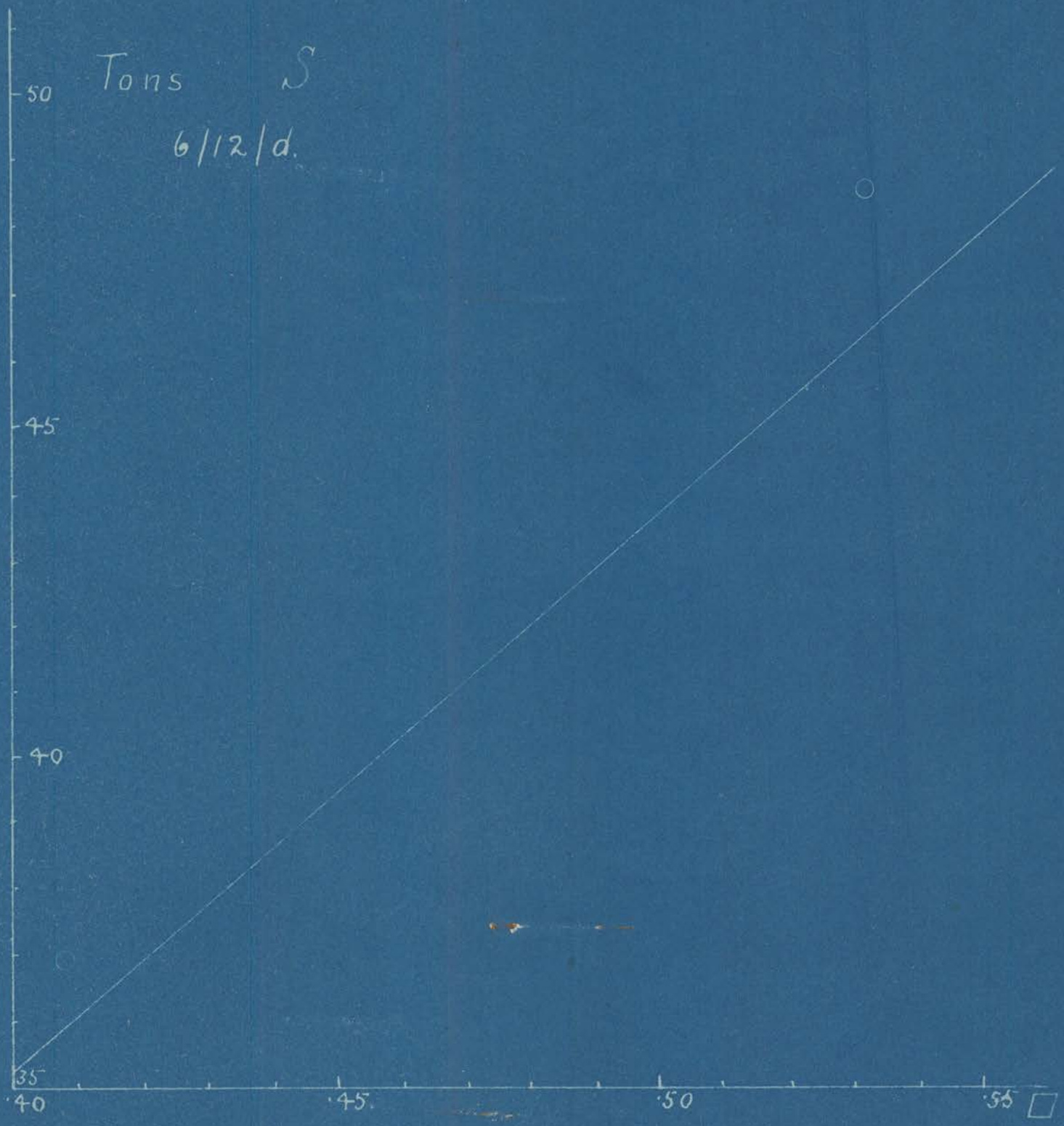
6/12/d.

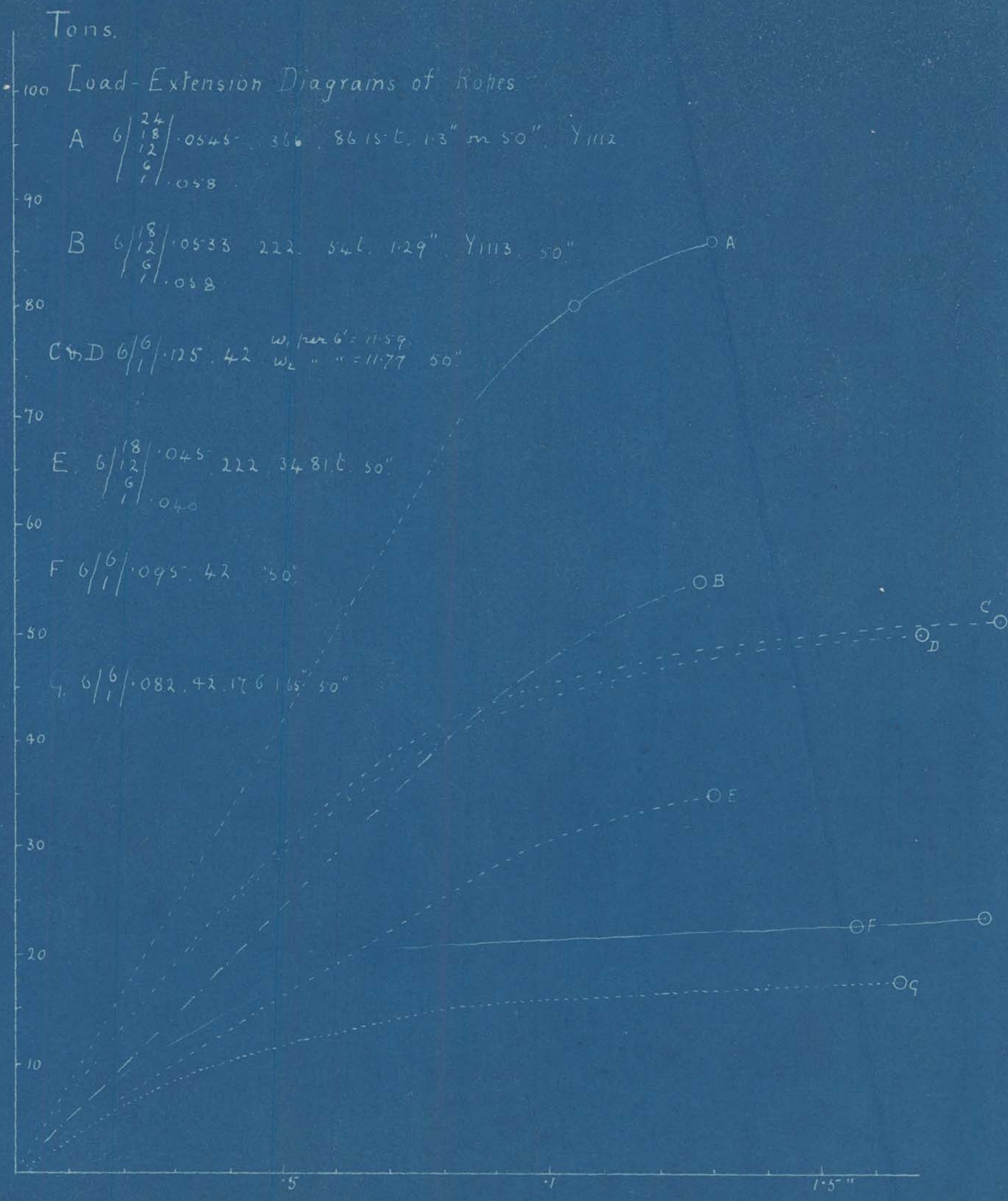
35
30
25
20
15
10
5
0

·05 ·10 ·15 ·20 ·25 ·30 ·35 ·40 □" ·45


Tons.
M.
6/12/d.
50
45
40
35
·40
·45
·50
·55
Area □"


Tons.
M.
6/12/d.
50
45
40
35
.40
.45
.50
.55
Area □"


Tons S
6/12/d.
50
45
40
35
40
45
50
55



Tons.
Load-Extension Diagrams of Ropes
A 6/24 18 12 6 1/·0545 ·058 . 366 . 86 15 t. 1·3" on 50". Y1112
B 6/18 12 6 1/·0533 ·058 222. 54 t. 1·29". Y1113. 50"
C & D 6/6 1/·125 . 42 w₁ per 6' = 11·59. w₂ " " = 11·77 50"
E. 6/18 12 6 1/·045 ·040 222 34 81 t 50"
F 6/6 1/·095 . 42 50"
G. 6/6 1/·082 . 42 . 17 6 1 65" 50"
100
90
80
70
60
50
40
30
20
10
·5
·1
1·5"
A
B
C
D
E
F
G

Load - Extension Curves

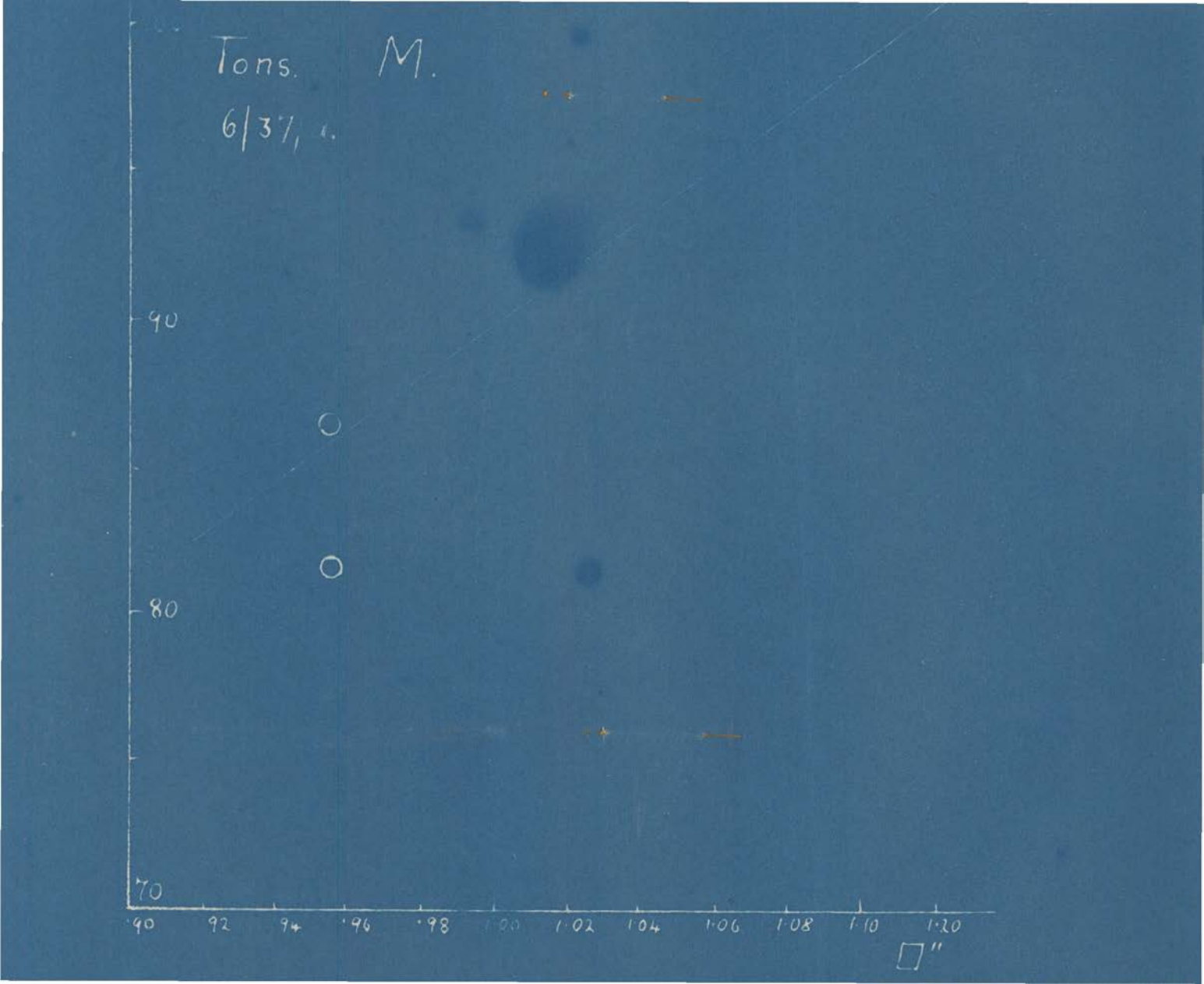
Typical

For Various Constructions

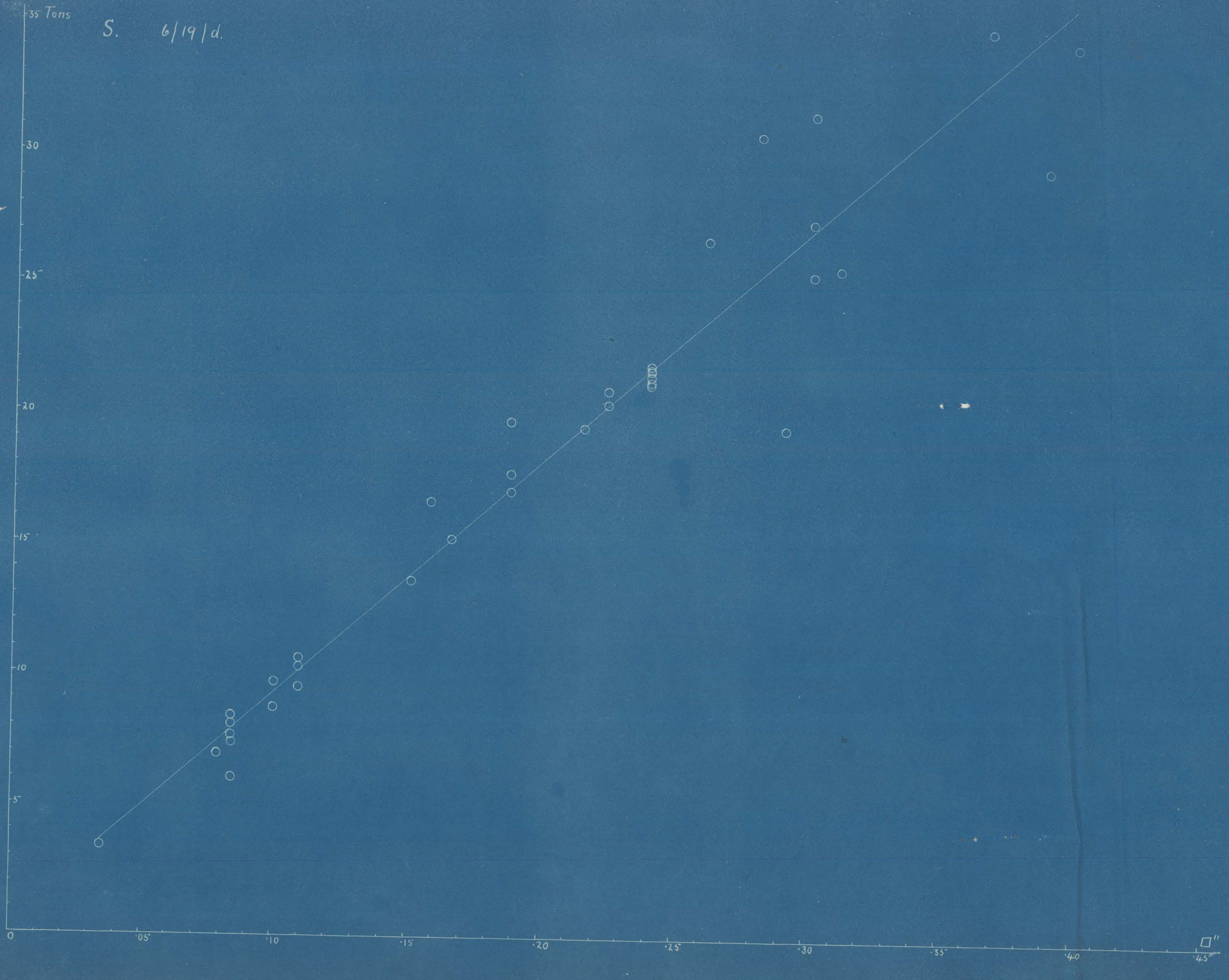
of Ropes.

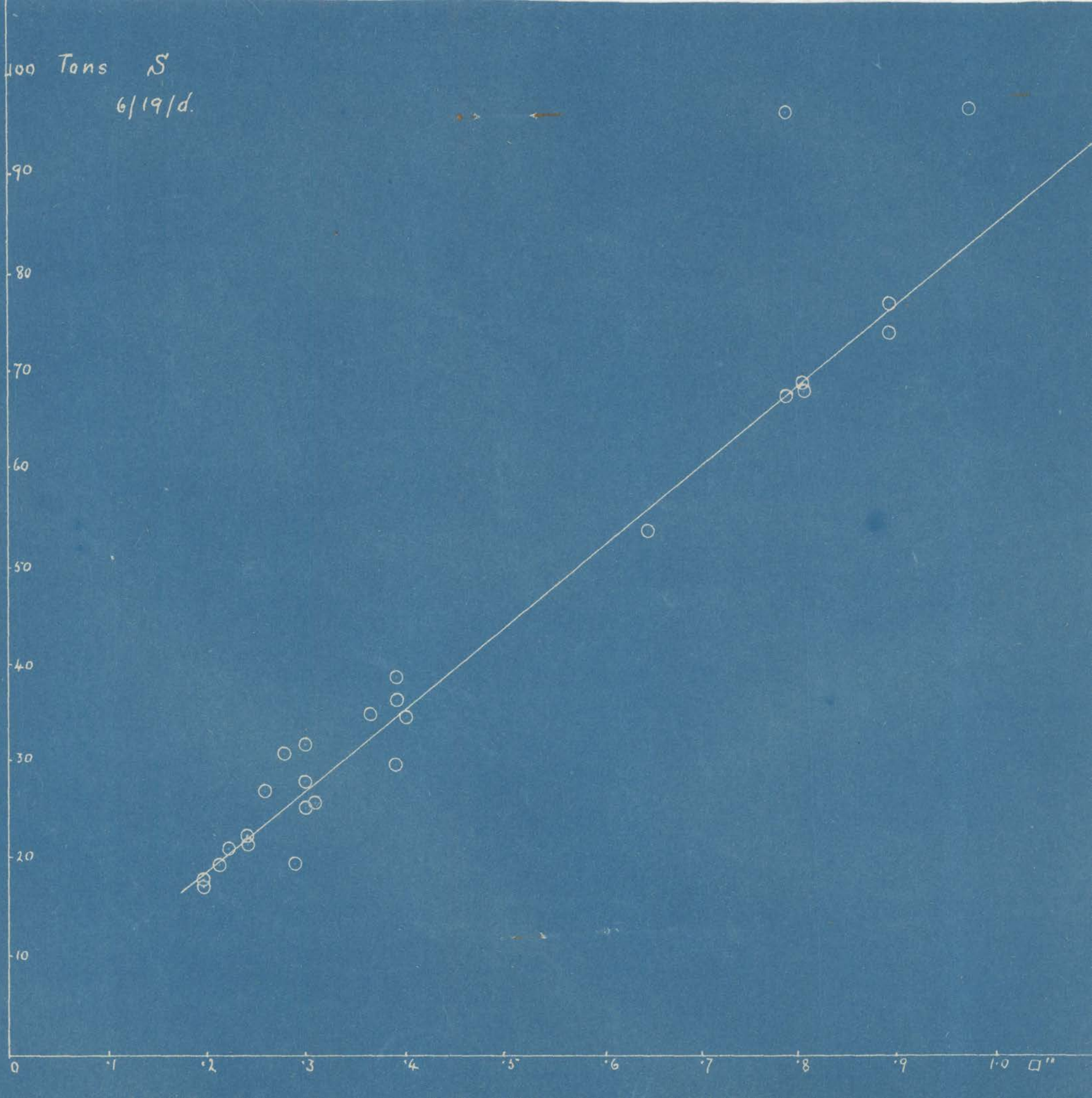
For chapter V

No (iii)


Tons.
M.
6/37, c.
90
80
70
·90
·92
·94
·96
·98
1·00
1·02
1·04
1·06
1·08
1·10
1·20
□"

S. 6/19/d.




100 Tons S
6/19/d.
90
80
70
60
50
40
30
20
10
0
·1
·2
·3
·4
·5
·6
·7
·8
·9
1·0 □"

Tons.

M.

6/19/d.

35

30

25

20

15

10

5

0

·05

·10

·15

·20

·25

·30

·35

·40

·45

□"

S.P.

P.C.

C.

Tons. 6/6/d. M.

34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2

0 ·02 ·04 ·06 ·08 ·10 ·12 ·14 ·16 ·18 ·20 ·22 ·24 ·26 ·28 ·30 ·32 ·34 ·36 ·38 ·40 ·42 ·44 □"

Tons. S

6/7/d.

35
30
25
20
15
10
5

0 .05 .10 .15 .20 .25 .30 .35 .40 □"

$\rho = a \sec^2 \alpha$

ρ = Radius of Curvature of Strand

α = angle of helix.

a = radius of strand.

$\alpha =$ 82° 81° 80° 79° 78° 77° 76° 75° 74° 73° 72° 71° 70° 69° 68° 67° 66° 65° 64° 63° 62° 61° 60° 55° 50° 45°

8 7 6 5 4 3 2 1

0 ·1 ·2 ·3 ·4 ·5 ·6 ·7

Cylinder-Radius a

Diagram giving the radius of curvature for a wire in a strand, for a given angle of helix, and a given radius of the strand.

It may also be used for a strand in a rope.

For chapter II p 61

Group of Diagrams of Rope Tests.

Standard Ropes (8 sheets).

Formulae

$6|\frac{6}{1}|d$; $6|\frac{12}{6}|d$; $6|\frac{18}{12}{\big/}\frac{6}{1}|d$ and

$6|12|d$.

For chapter V N°(i)

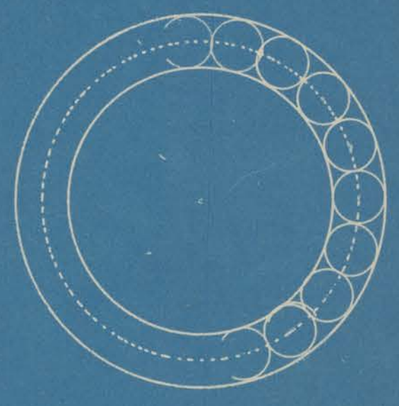
n= 180 90 60 45 30 24 20 18 15 12 10 9 8 7 6 5 4 3

Diameter D

·45 ·40 ·35 ·30 ·25 ·20 ·15 ·10 ·05

·01 ·02 ·03 ·04 ·05 ·06 ·07

diameter d



$D = d(1 + \operatorname{cosec} \pi/n)$

$\delta = D - d$. n = number of wires.

Diagram Showing the diameter D of a strand for n wires of diameter d in the outer layer

For Chapter I

page 35.

Tons. S

6/37/d.

85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5

0 ·10 ·20 ·30 ·4 ·5 ·60 ·7 ·8 ·9 □"

Load-Extension Curves.

Tons.

5
4
3
2
1

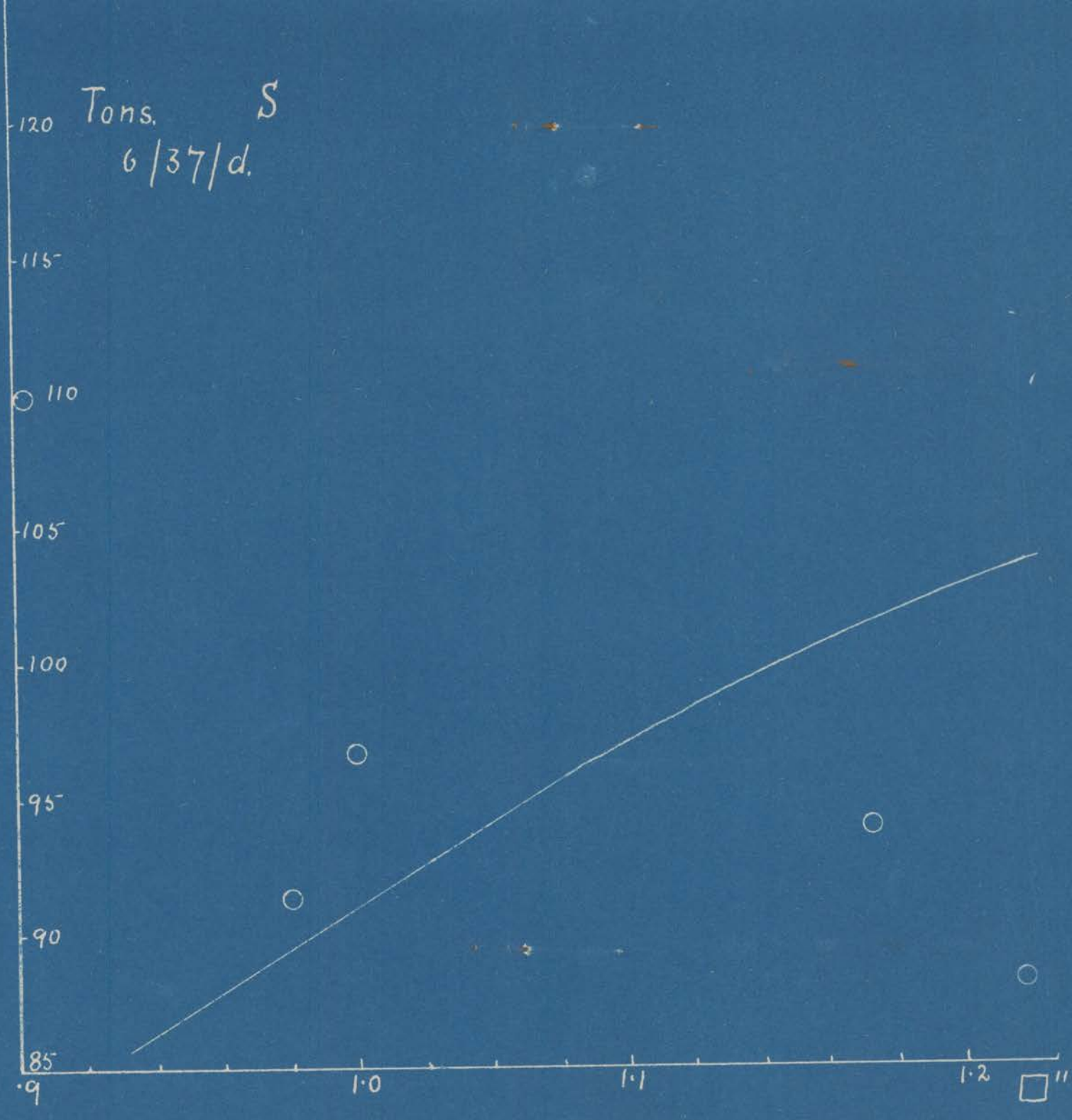
A 1·51" 6/12/·030 M&S Hemp Cores.

B 1·50" 6/12/·031 " " "

C ·95" 12/6/1/·019 | 6/6/1/·020 | ·019 126 M Hemp Core.

Extension".

0 ·5 1·0 1·5 2·0 2·5


Tons.
S
6/37/d.
120
115
110
105
100
95
90
85
·9
1·0
1·1
1·2
11

Tons.

10 6 strands of a $3\frac{3}{4}$" rope

$6/\left|\begin{matrix}18\\12\\6\\1\end{matrix}\right|/d.=.055"$ 37

9

Tested separately. (indicated by ○)

also

8 $6/\left|\begin{matrix}18\\12\\6\\1\end{matrix}\right|/d=.058"$

7

Tested separately.

6 (indicated by ⊗)

5

4

3

2

1

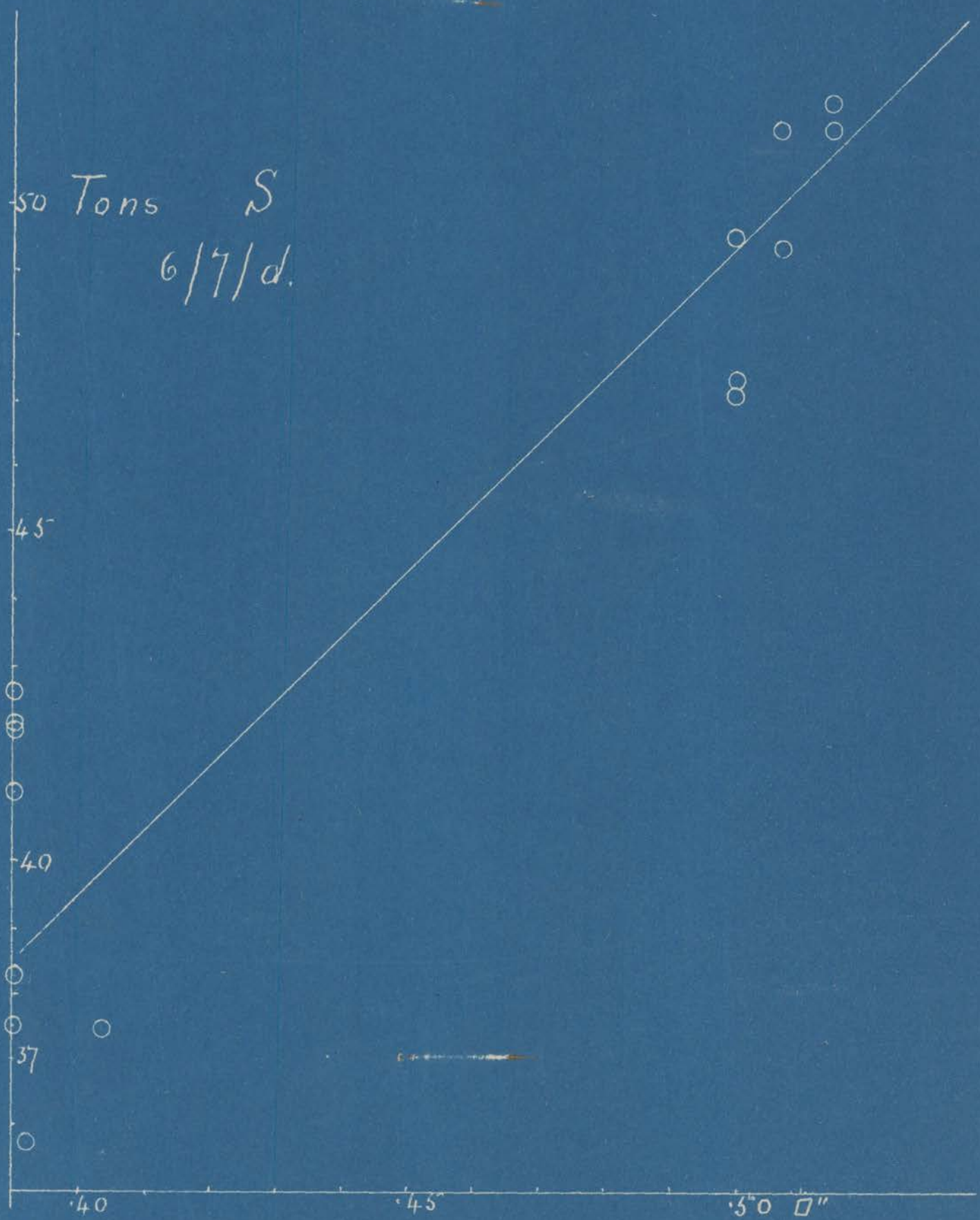
Extension.

0 ·1 ·2 ·3 ·4 ·5 ·6 ·7 ·8 ·9 1·0 1·1 1·2 1·3 1·4 1·5 1·6 1·7"

Stress - Strain Diagrams

For Various Constructions of Ropes

For Chapter V No. iv


50 Tons S
6/7/d.
45
40
37
·40
·45
·50 □"

Tons. 6/37/d. M.