NO.	DATE	NAME	DEPT.	SUBJECT
1	*68	Cessna, D	Gen. Sci.	The Earth, its size, shape & motions.
2	**	Tuttle, A. H.	<b>il (</b>	On some remains found in a cave in Penn's Valley, Centre Co., Penna.
3	*71	Burrows, F. S. (with McCreary)	**	A dissertation on iron, its metallurgy, etc.
38	*92	Meek, E. K.	Lat. Sci.	Compar. of the nervous system of the pupal and adult ant.
62	194	Doweer, H. P.	Min. Eng.	Report of the examination of sterling coal mine No. 8.
77	195	Beaver, H. McA. (with Willand)	Gen. Sci.	A geologic Section of Centre County.
87	*95	Harris, J. L. (with Williams)	Min. Eng.	Plan for the development of the "Williams" Coal Co. property, 8 maps.
127	*97	Alexander, #.C.B.	韓 糖	Examination of the Kittanning "B" coal seam & design of plant to clean it.
135	*97	Dunsmore, J. A.	19 18	Development & equipment of coal property at Glen Richey.
136	197	Hardt, C. W.	* *	Plan for the development of Anna S. Mine of the Fall Brook Coal Company.
161	*98	Beaver, T.	**	Iron ores of Pennsylvania.
166	*98	Cadman, M. M.	Min. Eng.	An investigation into blast furnace lines.
167	*98	Campbell, J. W.	<b>10</b> 10 10 10 10 10 10 10 10 10 10 10 10 10	An investigation into formulae for the design of fans.
195	<b>1</b> 9 <b>9</b>	Finley, W. H. (with Sherer)	## ##	Comparative heating values of coals determined by analysis and by calorimeters.
205	199	Rex, R. V.	e6 <b>89</b>	Development of a certain lead-silver mine in Montana.
240	•00	Brady, B. C.	33 es	Study of some Laboratory tests on gold and silver ores.
248	*00	Edwards, O. C.	Mech. Eng.	Experimental study of the combustion of bituminous coal.
253	*00	Hamilton, W. C.	Chem.	Critical study of the rational analysis of clay.

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267	*00	Young, L. E.	Min.Eng.	Comparison of the merits of the Longwall & Pillar & Room systems for Bituminous coal mining.
282	'01	Eynon, D. L.		Flow of iron & steel.
297	*01	Nelson, H. R.	Chem.	Analysis of concretions from the Champlain clays of the Con. valley
2 <b>9</b> 8	*02.	Pollock, W. C. (with Reed)	Vin.Eng.	Assay of American & foreign silver ores and smelting products.
	*	Reed, G. K. (with Pollock)	# *	(same as above)
303	*01	Ruble, J. S.	Mech.Eng.	Study of the combustion of coal in a boiler furnace.
306	•01	Scholl, LeRoy	Min.Sng.	Anthracite coal breaker and the preparation of coal for market.
353	•03	Deike, G. H. (with Zern)	# <b>19</b>	Mapping of a bituminous coal mine with a discussion of its present and future development.
357	•03	Freeman, C. S.	# #	Extraction of copper from its ores.
360	•03	Glenn, H. G.	* *	Galena deposits of the United States.
388	*97	Alexander, C. B.	*	The economic development of a bizuminous coal mining plant.
406	*04	Crosman, H. M.		Manufacture of coke.
407	*04	Detwiler, W. V.	* *	Study of Lord's method of test- ing coals for coking properties.
409	*04	Elder, P. G. (with Smith)	**	Map of the Monarch mine and comments.
413	*04	George, H. C.	<b>Hining</b>	Appliances & methods used in the production of petroleum.
422	*04	Liljegren, E. P.	Gen.Sci.	Geology of Centre County.
424	*04	McCamant, B.	Min.Eng.	Study of methods used in obtain- ing silver from its ores.
427	*04	McKnight, H. F. (with Ray)	Baining	History & practice of the Besse- merising of copper matter.
440	*04	Whitworth, E. A.	Kin.Sng.	Open hearth processes.

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441	*04	Zullinger, J. E.	Min Eng.	Study of the metallography of steel.
452	*05	Ames, C. D. (with McDowell & Ro	binson)	Investigation of cyanide process for the extraction of gold from its ore.
458	*05	Barnett, R. P. (with warriner)	Min. Eng.	satimation of cost & plans of con- struction of an aerial tramway from Shingletown to State College.
470	*05	Saston, H. D.	kin. Eng.	Electrolytic processes for extracting copper from copper matter.
478	*05	Gates, F. S.	Min. Eng.	Chemical changes effected in pig iron by re-melting.
511	•05	Webster, G. E.	Min. Ang.	Uses & mode of occurrence of the iron ores & clays of Pennsylvania.
514	*01	Eynon, D. L.	Min. Ang.	Flow of iron & steel:discussion of apparatus in rolling mill processes, pt.2.
531	106	Bartlett, J. W.	Min. Sng.	Affect of remelting quat iron with different exidising agents,
532	*06	Braddock, H. F.	Min. Eng.	Electrolytic deposition of nickel.
534	*06	Caswell, R. H. (with Dalburg & McG	Min. Eng.	Development of a bituminous coal mine.
535	106	Clay, A. H. (with Cawkes)	Min. Eng.	Discussion of methods & appliances used in authracite mining.
546	*06	Farrington, R. P.	Min. Eng.	Synthesis of manganese steel by making use of the thermit reaction.
554	106	Cay, F. C.	Min. Eng.	Utilization of the limestone of Centre Co., Pa.
555	*06	Gilson, K. L.	Min. Eng.	Concentration test on Montana copper ore with a design of a 100 ton mill for its treatment.
557	*06	Glenz, G. C.	Min. Eng.	Metallography of a series of carbon steels.
598	*06	Mahaffey, D. G.		Discussion & design of a bituminous coal washery system.
604 (with	'07 Deyshe	Brady, H. A. r. German, Lang, Smi		Efficiency test on the Hellefonte )blast furnace company's plant.
6 <b>06</b>	107	Breelin, T. F.	Min. Eng.	Survey and development of the Amer. coal company's mines at Mesgrove.
613	*07	Culbertson, J. G.	Min. Eng.	Investigations on the methods of applying the cyanide process to a gold ore.

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616	•01	Lodge, D. D.	Min.	Eng.	Survey & report of shaft Ne.1 mine of the Morrisdale coal co. at Morrisdale, Pa.
625	•	Gunkle, R. K.	•	*	A complete test of the Mittany Company's gas producer.
634	•	Lewis, H. M.	•	•	Some investigations concerning the effects of moisture on the working of the Bellefonte Furnace Company's blast furnace.
647		Monts, H. W.	• .		Design & location of coal storage plant for Mittany Power Co., State College, Pa.
650	4	Powell, Sugene	<b>₩</b> :	*	Method of water hoisting in anthra- cite mines of Pennsylvania.
6 <b>62</b>	10	Smith, H. I.	•		Investigation of the value of a Portland cement property.
674	199	Finley, W. H.		<b>3</b>	Development of a coal property and geologic discussion of the field.
687	*08	Bixby, B. H.	Mines &	Ket.	A report on the Cornwall iron ore mines, Cornwall, Fa.
690	•08	Boyle, J. E.			Design of a one hundred ton con- centrating mill.
693	*	Burne, H. M.	ь.	*	Survey & development of portions of the Criterion mine of the West-moreland Coal Co. at Irwin, Pa.
<b>69</b> 8	<b>9</b>	Dillon, M. G.	•	•	Report on the copper mines of Central Pennsylvania mining & milling company Central, Fa.
702	<b>***</b>	Dunn, V. T.	*	4	Assaying of impure ores.
706	•	Garrett, A. J.	***	•	An investigation of the method of applying the cyanide process for the extraction of gold from a gold ore.
707	#	Gebhardt, S. A.	<b></b> 1		Experiments on the treatment of low grade silver ores, Cobalt, Canada.
712		Henry, J. T.	•		Electricity in coal mining.
720	**	Lee, R. C.	•	47	The preparation of anthracite coal.
729	•	O'Donnell, C. S.		• ,	Prospecting and methods of mining at Cobalt, Canada.
730		Piper, C. M.	# 1	•	Development of a mining property at Shingletown Gap, Pa.

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733	*08	Hyan, J. T.	Mines & Met.	Location of a branch of the Hunting- don & Broad Top R.R. from Goalmont, Pa. to the Savage coal property.
770	*09	Allport, H. H.	***	Investigation of several coal samples.
774	*	Aungst, R. G.	**	Development of the Lincoln mine.
777	# -	Barnett, A. L.	<b>49</b> •• ·	The development and equipment of a mine in the Lackawanna basin, Penna,
,779	•	Bedale, F. S.	n w	The development and equipment of a mine in Grass Valley District, Calif.
789	**	But.er, T. R.	e <b>4</b>	The development and equipment of the Mickey copper mine near Butte, Mon.
796	<b>19</b>	Cyphers, S. L.	•	The cost of prospecting, developing and equipping of the Pahaquarry copper mine.
804	n	Glesson, F. A.	<b>1</b>	The development and equipment of a coal mine in the Lackawanna basin.
814	#	Lindemuth, L. B.	<b>15</b> . <b>16</b>	A treatise on open hearth steel manufacture.
815	15	Lynch, J. H.	<b>转</b>	The development and equipment of a bituminous coal property near Irwin, Pa.
820	*	Miller, F. B.	<b>#</b> **	Development and equipment of Leaver mine, Idaho.
824	**	Orndorff, C. R.	* *	The development and equipment of a mine in the Marquette district, Mich.
830	*	rurcell, G. F.	19 19	The cyanide process and its application to a tellwide gold ore.
831	<b>4</b> ,	Ricker, Spangler		The prospecting and development of a copper mining property in the vicinity of Butte.
841	•	Yocum, C. G.	**	The development and equipment of a lead mine in the Flat River district.
855	*08	Plank, W. B.		The use and construction of mine models.
86 <b>6</b>	*10	Barbey, J. W. M	etallurgical.	Studies in the preparation & properties of iron carbon alloys.
867	•	Berkebile, F. H.	Min. Bng.	Development & equipment of the valley mine located near Johnstown, Pa.
868	*			Development & equipment of the Josie
		b de la companya de l		coal mine near Scalp Level, Pa.

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	870	*10	Bittenbender, F. K.	Min. Eng.	Development & equipment of the Star coal mine near Centralia, Pa.
	876	**	Buka, Robert	<b>♥</b> 82 * * <b>,♥</b> * * .	Development & equipment of the Hannock mine near white Rock, Fa.
	879		Clifford, F. C.		Development & equipment of a bitum- inous coal mine near Marianna, Fal
	880		Cromwell, H. R.	# #	Development & equipment of a bitum- inous coal mine near Brownsville, ra.
	892	**	Gallinger, W. N.	** **	Development & equipment of the Beas mine, near Creighton, Pa.
	893	**	Garner, C. A.	* *	Development of the Girard coal mine near Girardville, Fa.
	900	*	Hickman, R. E. C.	He tall,	A study of the open-hearth steel manufacture.
•	902	*	Hirshman, C. L.	Min. Eng.	The development of the Wolden Cycle annex mine located at Cripple Creek, Colo.
	915	**	Leidich, H. A.	•	The development & equipment of the Brook coal mine near Valley View, Fa.
	916	*	Lloyd, E. C.	• •	Development of a bituminous coal mine near Bissell, Wash.Co., Pa.
	917	*	Lyon, Faul	Metall.	Study of blast furnace operation.
	919	**	McCleary, sdward	Min. Sng.	The development & equipment of a mine in the Metcalf district, Aris.
	921	•	McCoy, w. L.	* *	The development & equipment of a bituminous coal mino near white Rook, Pa.
	933	**	Nichols, J. L.	Metall.	The commercial extraction of silver from speiss.
	941	•	Reed, M. I.	• .	A study of blast furnace phenomena.
	942	*	Roberts, A. E.	Kin. Sng.	Development & equipment of the Olyphant No.2 mine, Blakely, Pa.
	944	•	Russell, W. T.		Development & equipment of the Dot coal mine.
	948	**	Silverberg, S. A.	** **	The development & equipment of the Eva mine, Pa.
	950	*	Smith, S. M.	Metall.	A study of the open hearth steel manufacture.
	951	*	Sullivan, J. S.	R	A study of malleable cast iron.

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NO.	DATE	BAKE	DEPT.	SUBJECT
952	*10	Sutton, S. B.	Kin. Eng.	Development & equipment of the Elk Run mine.
954	•	Vorhis, L. F.	₩ #	Development & equipment of the Rita coal mine.
955	#	Vought, R. H.	**	Development & equipment of the Dale mine at Bridgeport, Pa.
956		warner, H. E.	<b>16</b>	Development & equipment of a mine in the anthracite coal basin, Wilkes- Barre, Pa.
957	**	Williams, F. E.	at 18	Development & equipment of the Lydia coal mine near Indiana, Fa.
987	•11	Bourquin, J. J.	# #	Development & equipment of a mine in the western middle anthracite district near Mt. Carmel, Pa.
989	•	Bubb, H. H.	* *	Development & equipment of a mine in the Punxsutawney soft coal district.
992	*	Clark, J. O.	* *	Design of a 250 ton blast furnace to be located near Oak Hall, Pa.
995	·	Ellie, E. T.	* *	Development & equipment of a mine in the Punxeutawney-Reynoldsville soft coal district.
998	*	Forbes, J. J. V.	# # .	Development & equipment of the Bear Valley mine near Mt. Carmel, Pa.
999	•	Foster, W. H.	Met.	Effect of silicon on the constitution of the alleys of iron and carbon.
1016	•	Lynch, E. J.	Min. Eng.	Development & equipment of the Fern- wood coal mines in the middle anthra- cite coal fields near Pittston, Pa.
1024	#	Parke, W. D.	10 No	Development & equipment of a mine in the northern anthracite coal district.
1027	*	Quickel, K. H.	n #	Development & equipment of the Vir- ginia coal mine at Stearns, Kentucky.
1031	•	Shoemaker, G. C.	Met. Eng.	Design, construction & operation of a blast furnace for the manufacture of pig iron.
1042	•	Teckley, H. J.	* *	Design of a 500 ton blast furnace and plant to be located in the vicinity of Detroit, Mich.
1054	*08	Snider, J. B.	Mining	An investigation into the losses of silver during the operation of supellation.
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No	DATE	AVE		SINURCE
1065	*11	Boag, D. C.	Min. Eng.	Development & equipment if the Tug River coal mines, near Big Sandy, W. Va.
1075	*	Butler, R. A.	<b>8 9</b>	Development & equipment of the Franklin coal property, Johnstown, Pa.
1086	*	Gray, Alexander	**	Development & equipment of the Isabella mine No.11 in Pittsburgh soft coal district.
1095	#	Lloyd, D. W.	# 18	Development & equipment of a mine in the Pittsburgh soft coal district.
1101	•	Snyder, J. M.	• •	Development & equipment of the Isabella mine No.1 in the Fittsburgh soft coal district.
1103		Steidle, Edward	* *	Development & equipment of a mine in the cobalt district, Ontario, Canada.
1115	*12	Arnold, M. C.	* *	Design of a 250 ton blast furnace and plant located at Seattle, Washington.
1119		Bevan, L. W.	Met. Eng.	Design of a 400 ton blast furnace & plant located at Sahara, Utah.
1123	*	Boger, Melson	Min. Eng.	Development & equipment of a mine in middle anthracite coal field.
1126	*	Burgett, P. Y.	4 8	Development & equipment of mine in Nissouri lead district.
1129	*	Catheart, S. H.	Met. Eng.	Design of a 300 ton blast furnace and plant to be located at Millerstown, Fa.
1141	· <b>*</b>	Farenwald. B.	kin. Eng.	Development & equipment of mine in middle anthracite coal field of Penna.
1155	*	Handley, R. W.	**	Development & equipment of the Sina copper mine in Arizona.
1169	•	King, Frank	s e	Development & equipment of Evening Star mine, Coeur D'Alene dist., Idaho.
1175	•	McMeil, J. W.		Development & equipment of a mine in the Pittsburgh soft coal district.
1181	*	Pier, H. M.	Met. Eng.	Design of a 500 ton blast furnace and plant to be near Milwaukee, wis.
1183	•	Rittenhouse, K. D.	Min. Eng.	Development & equipment of the Billy mine in Lackawanna Co., Penna.
1185	*	St. Clair, Stuart	Min. Geol.	Sudbury nickel field.

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1187	,18	Seip, R. H.	Min. Eng.	Development & equipment of a mine in the Wysming Valley anthracite coal district.
1195	<b>*</b>	fanguy, E. E.		Development & equipment of a mine in
1201	•	White, W. F.	# #	the Bisbee copper district.  Development & equipment of the Kimmet lead mine in Frontenac Co., Ontario.
1204	*	Woodward, H. H.	## ##	Development & equipment of a mine in the northern anthracite coal field.
1211	*07	German, h. M.	<b>10</b> 10	Relation of the critical points As & Ar to the heat treatment of steel.
1217	*09	Lindemuth, L. B.	<b>**</b>	Manufacture and properties of a natural alloy chrome-nickel steel.
1237	*13	Bachle, R. E.	<b>₩</b> #	Development & equipment of Cole coal mining property in the Connellsville district.
1240	**	Bigham, R. F., Jr.	<b>46 82</b>	Development of the Morella coal mine in the Pitteburgh soft coal district.
1251		Cadman, W. K.	Min. Geol.	The siliceous colites of the Bellefonte quadrangle.
1252	***	Clarke, H. M.	Ein. Eng.	Development & equipment of the U-B mine in the northern anthracite coal field of Pennsylvania.
1253	*	Cohen, Benjamin	** **	Development & equipment of a mine ir the Joplin lead and zine district.
1255		Darragh, B. A.	Met. Eng.	Design of a 500 ton blast furnace and plant at Bessemer, Pa.
1258	*	Ellis, J. H.	Min. Eng.	Development & equipment of Crab Run coal mime in Cambria county, Penna.
1266	<b>9</b>	Gosnell, W. H. Jr.	# #	Development & equipment of the Calcimine coal mine in the Connells- ville soft coal district.
1271	**	Harrison, F. J.	# #	Development & equipment of the Bell mine, Pittsburgh soft coal district.
1272	* 1	Helm, R. C.	Met. Eng.	Design of a 350 ton blast furnace and blant to be located at Roby, Ill.
1276	•	Howell, John		Design of a 450 ten blast furnace and plant to be located at Catasaqua, Pa.
1287	•	Kocher, H. P.	# # u	Design of a 300 ton blast furnace and plant.
1291		Leonard, H. R.	Min. Eng.	Development & equipment of Nippesing mine in Coleman township, Nipiesing,
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1294	*13	Linn, T. C.	Met. Eng.	Design of a 300 ton blast furnace and plant to be located at Burgettstown, Pa.
1396	#	Malin, O. B.	• •	Design of a 300 ton blast furnace to be located at Bellefonte, Pa.
1298		Mauthe, J. L.		Design of a 500 ton blast furnace and plant for the Humbug Iron Co. at Dubois, Pa.
1305	*	Page, G. R.	Min. Eng.	Development and equipment of the Vixon mine in the Globe district of Arizona.
1314	•	Rodgers, G. T.	<b>40 (8)</b>	Development & equipment of Dobia copper mine in the Butte, Mont. district.
1317	***	Selkregg. F. W.	*	Development & equipment of a mine in the Sudbury nickel district.
1320	7	Skinner, D. K.		Development & equipment of a mine in the Joplin lead & zine district of Missouri.
1333		Vosburg, G. F.	Met. Eng.	Design of a 500 ton blast iron furnational plant.
1337		Williams, A. C.	***	Design of a 500 ton blast furnace to be located at New Castle, Penna.
1338	•	Villiams, C. F.	Min. Eng.	Development & equipment of the Jerome No.3 mine at Jerome, Penna.
1339	*	Wilson, A. S.	*	Development & equipment of the Knot mine in the Sudbury nickel district, Ontario.
1342	•	Lollinger, F. L.	# #	Development & equipment of the C* copper mine in the Bisbee copper district, Arisona.
1348 (	(*10)	Fahrenwald, F. A.	Met. Eng.	Telluriumsa study of the element, its occurrence, compounds and alloys
1350	*12	German, H. H.		Cyamidation of the Cambrian, siliceous, blue ores of the Black Hills.
1358	*08	Lee, S. C.	Min. Eng.	The fire at the Consol colliery of the Hillside Coal & Iron Co. at Avoca, Luzerne Co., Penna.
1361	*07	Mason, H. D.		The fighting of a mine fire in a bituminous coal mine.

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1364	*07	Smith, L. B.	Min. Eng.	Peculiar jointage caused by a peridotite dike in Fayette Co., Pa.
1386	*14	Becker, E. D.		Development & equipment in the Michigan copper district.
1387		Belchic, George	Min.Geol.	Alder Gulch district, Montana.
1391		Brown, L. H.	Min. Eng.	Development & equipment of the Billy "B" mine, Galena, Kansas.
1393	*	Burdic, K. W.	* *	Development & equipment of "OK" mine in the Johnstown bituminous coal district.
1406	*	Eynon, w. D.		Development & equipment of the Betty and Billy mine, Cour d'Alene, Idaho.
1421	•	Graham, W. F.	Met. Eng.	Design of a 450 ton iron blast furnace and plant equipment.
1423	•	Haddow, J. F.		Design & equipment of a 500 ton blast furnace & plant at Lebanon, Pa.
1425	•	Hayes, F. N.	Min. Eng.	Development & equipment of a mine in the Coeur d'Alene district of Idaho.
1435	•	Johnston, F. B.	Met. Eng.	Design of a 1000 ton blast furnace plant, located at Windsor, Untario for Wolverine steel.
1440	*	Kulp, C. S.	Min. Eng.	Development & equipment of the Marwyn mine at Prosperity, Jasper Co., Missouri.
1445	•	Lindsey, W. M.	Met. Eng.	Design & development of a Talbet open hearth steel plant to produce steel rails.
1448	4	McCleary, S. J.	Min. Eng.	Development & equipment of a mine in the middle anthracite coal field of Penna.
1462	•	Reeder, R. D.	<b>4</b> 8	Development & equipment of an anthracite coal mine in the middle western anthracite coal fields of Northumberland County, Penna.
1465	**	Rishell, P. W.	Met. Eng.	Design of a 100 ton copper smelter and refinery.
1467	*	Salmon, G. J.	Min. Eng.	Development & equipment of the El Oro mine in Tonopah, Lyon Co., Mevada.

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1475	*34	Smith, S. V.	Met. Eng.	Design of six seventy five ton open hearth furnaces and necessary plant equipment.
1479	•	Sullivan, L. G.	Min. Eng.	Development & equipment of Humboldt mine, Bisbee, Arizona.
1481	*	Thompson, H. B.		Development & equipment of the Gerdelan mine of the Mac Mining Co., Butte, Mont.
1484	*	West, J. P.	* *	Development & equipment of an anthracite coal mine in western middle coal region of Penna.
1495	*09	Gleason, F. A.		Robbing of pillars in the northern anthracite coal fields of Pennsylvania.
1511	•11	Steidle, Edward	. **	"Fleuss-proto" self-contained oxygen breathing apparatus.
1527	*15	Campbell, L. C.	**	Development & equipment of a mine in the Johnstown soft coal district.
1537	• · · · · · · · · · · · · · · · · · · ·	Dimelow, J. E.	<b>做</b>	Development & equipment of a mine in the Pittsburgh soft coal district.
1539	er .	Dunbar, J. E. D.	<b>*** #</b>	Development & equipment of Rand mine, Stelson, Clark Co., Nevada.
1549	<b>(4)</b>	Finkeldey, W. H.	**	Development & equipment of a sino mine in Franklin furnace district, N.J.
1551	*	Flagg, H. V.	Met. Mng.	Design of a 500 ton blast furnace and plant for Streips Iron Co., at Indiana harbor, Ind.
1553	.#	Fogg, L. W. Jr.	* *	Design of a 450 ton blast furnace and plant to be located at Edith Foint, California.
1560	*	Greenawalt, G. V.	Min. Eng.	Development & equipment of the Boots mine in the Dittsburgh soft coal district.
1561		Harbach, H. M.	Met. Eng.	Design of a 450 ton blast furnace plant located at Sewaren, N. J. for the Sewaren Iron Co.
1564		Hays, C. M.	win. Eng.	Development & equipment of a mine in the Pittsburgh soft coal district.
1569		Hutchinson, R. M.	Net. Eng.	Design of a 450 ton blast furnace plant located at Elizabeth, N. J. for Eliza Iron Co.
1583	<b>#</b>	Lowry, J. C. Jr.	Min. Eng.	Development & equipment of a mine in the Quemahoning soft coal district.

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1584	115	Lucrasen, G. V.	Met. Eng.	Design & operation of an open hearth steel plant to be located at Elizabeth, N. J.
1603	**	Railber, N. H.	Min. Eng.	Development & equipment of Chartiers mine for Cannonsburg Goal Co., Wash. Co., Penna.
1605		Reed, A. R.	Met. Eng.	Design of a 500 ton blast furnace & plant to be located at Hazlewood, Pa.
1606	<b>₩</b>	Mhoads, A. B.	n # -/	Design of a 500 ton copper plant in- cluding 125 ton smelter and 500 ton refinery.
1607	<b>#</b> .	Roberts, C. N.	Min. Eng.	Development & equipment of Cherry Run mine for Cherry Run Mining Co., Indiana Co., Penna.
1696	*16	Brennen, G. K.	•	Development & equipment of the Acme mine, located in the Pittsburgh soft coal district
1707		Cooner, J. D.	舒 釋	Development & equipment of the Cresent mine in the Fittsburgh soft coal dist.
1715	•	Faust, G. C.	<b>*</b>	Development of the Spartan mine, situated in the southern anthracite coal field of Penna.
1727	<b>**</b>	Hall, C. K.	Met. Eng.	Design of a 300 ton blast furnace and plant to be located at Los Angeles, California.
1728	*	Hammitt, E. P.	Min. Eng.	Development of the Apollo mine, located near Waynesburg in southwestern Pennsylvania.
1764	*	Nevin, C. M.	Min. Geol.	The role of chlorine in the genesis of certain lead deposits.
1777	<b>₹</b> £	Shaver, H. H.	sin. Sng.	Development & equipment of the Bacchus mine located in the northern anthracite district.
1784	*	Teas, L. P.	Min. Geol.	Notes on the geology of the San Juan region.
1803	112	Catheart, S. H.	Geology	Origin of concretions in certain shales of the Bellefonte quadrangle.
1839	•17	Ayres, V. L.	Min. Geol.	Reconnaissance in the highlands of eastern Orange County, N. J.
1849	*	Boyles, R. C.	Met. Eng.	Design of a 100 ton open hearth furnace and plant at Attalla, Ala., the Southern Iron & Steel Co.

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1850	117	Bray, H. M.	Min. Eng.	Methods of mining employed by the Nittany Copper Company.
*1859	#	Colclesser, R. G.	* *	Development of the Mittany copper mine at Keeweenau point, Mich.
1871		Ellis, G. L.	Min. Geol.	Geology of the Mount Pleasant basin.
1885	**	Harper, R. J.	* Eng.	Prospecting on the property of the Nittany Copper Company.
1887		Henderson, H. L.	Met. Eng.	Design of a 450 ton blast furnace plant at Attala, Ala, for the Southern Iron & Steel Company,
1888	•	Herr, J. C.	<b>#</b>	Design of a 450 ton blast furnace & plant for the Standard Steel Car Co., at Butler, Penna.
1889	a	Hinman, R. G.		Design of a 100 ton copper smelter for the Northwest Consolidated Copper Company, Helena, Montana.
1907	•	Learn, I. M.	<b>44 67</b>	Slectrolytic copper refinery for the Northwestern Consolidated Copper Co. Scattle, Washington.
1912		McCulloch, J. P.	Min. Geol.	The geology of the Belcher Islands, Hudson Bay.
1915		Markell, C.	Met. Eng.	Design of a 400 ton blast furnace plant located at Seattle, Wash., for the Pacific Iron Company.
1921	•	Morgan, G. D.	Min. Eng.	Equipment of the Mittany copper mine at Keweenau point, Michigan.
1929	,##	Robinson, S.	**	Geology of the property of the Hittany Copper Company.
1933	•	Succep. J. A.	Met. Eng.	Design of a 450 ten blast furnace and plant for the Ohio Steel Company, Ashtabula, Ohio.
1965	*10	Roberts, A. E.	Min. Eng.	Preumatic concentration of cres with special reference to the plumb preumatic jig.
1967	*12	St. Clair, S.		Geology of the Ste. Genevieve copper deposits, Missouri.
1975	*15	Wadsworth, M. E.	**	Origin and mode of occurrence of the Lake Superior copper deposits.
1994	*18	Cohen, H.	• •	Prospecting & development of the Betty mine for Northern Lackswanns Coal Co., Carbondale, Penna.

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1997	*18	Coolidge, D. J.	Min. Eng.	Development of the Omeida mine of the Valley Camp Coal Co. in Allegheny Co., Penna.
1999	*	Dalrymple, M. W.	Met. Eng.	Design of a 500 ton blast furnace & plant to be located at Akron, Chic.
2000		Devereaux, J. E.	* *	Design of a 500 ton iron blast furnace for the Valley Iron Co. to be located at East St. Louis, Ill.
2001	*	Donnelly, S. E.	Ein. Eng.	Prospecting & development of the Longhorn Mine, Flatteville, Wis.
2004	#	Feldser, O. B.	Met. Eng.	Design of a 500 ton blast furnace plant located at Muskegon, Mich. for the Superior Iron Co.
2006	n	Hawk, E. A.	# ##	Design & operation of a second open hearth unit at the plant of National Tube Co., Lorain, Ohio.
2008		Houdeshel, J. W.	Min. Eng.	Development & operation of the "Sunshine mine in the Coeur d'Alene district, Idaho.
2011	*	Johnston, J. M.	a n	Prospecting & development of the Barley mine, Elk Co., Penna.
2018		Orndorff, C. R.	* *	Prospecting & development of the Butler Mountain Mine, Tonopah, Nev.
2025	•	Wilson, M. J. Jr.	## # <del>*</del>	Prospecting & development of the big Lode mine, South Range, Mich.
2026	**	Winchester, G. A.	* 6	Development of the Ludor mine of the Ludor Bituminous Coal Mining Co., Madera, Fenna.
2031	*	Belchic, G.		Mining & concentration of ore in the Joplin sine and lead district.
2 <b>033</b>	*	Caudill, S. J.	Geology	The Irvine, Kentucky, oil and gas field.
2042	*	Nutting, J. M.	*	Geographic influences in the growth of Cleveland, Ohio.
2050	*19	Fried, J. S.	Wining	An analysis of Pennsylvania coals as to yields of gas and by-products.

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2051	119	Hedding, J.N. Simon, M.	Min. Eng.	The determination of the frictional resistance of ninety degree bends to the air current.
2054	n	Mull, E. K. Potteiger, W. I.	Met. Eng.	The effect of nitrogen on steel.
2055	**	Owings, C. W.	Min. "	Problems in the concentration of a calcite-galena-sphalerite ore by flotation.
2057	**	Stetler, H. F.	<b>#</b>	The development a operation of a coal mine near Johnstown, ra.
2070	Q.	Waidlich, D. C.		The development & operation of a copper mine near Butte, Montana.
2076	*20	Bayles, G. L.	Min. Geol.	White clays of the Nittany valley.
2077		Esterly, J. E.	Met. Eng.	Design of an electric furnace for the Reading Steel Casting Company.
2078	*	Greenawald, P. B.	• · · · · · · · · · · · · · · · · · · ·	Construction of a by-product coke plant of the Koppers type.
2080		Paxson, R. B.	Min. Geol.	Possibilities of the occurrence of oil in the Nittany Valley.
2081	#	Rothermel, L. R.	Metallurgy	Design of a coke plant of the Koppers by-product regenerative type for the berough of Bellefonte, Penna.
2083	₩.	Titzel, W. W.	Met. Eng.	Design of a 500 ton blast furnace to be located at Brackenridge, Pa.
2084	117	Ayres, V. L.	Mining.	The geologic structure of the lower Nittany Valley.
2090	,50	Auch, F, C.	Netallurgy	The design of a 500 ton blast furnace and plent to be located at Neville Island, Penna.
2094		Calhoun, J. S.		The design of a 500 ton blast furnace & plant for the U. S. Steel Corporation to be located at Duquesne, Penna.
2095		Clark, M. P.		The design of a 500 ton blast
105.4 54.	·			furnace & plant for the Birmingham Iron & Steel Co. located at Birmingham, Ala.
2096		Cook, B. C. Holder, P. E.	Met. Eng.	An investigation to determine the physical properties of an 80% carbon steel when heat-treated by various methods.
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2097	*20	Craig, H. W. Martin, J. W.	Min. Eng.	Development of Penn Coal Company's mine in East Deer township, Allegheny Co., Penna.
2104		Jackson, R. A. Tubridy, E. B.	• · · · · · · · · · · · · · · · · · · ·	Choice of electrical equipment as a means for minimizing working costs in a low profit bituminous coal mine, Harrison Co., W. Va.
2105	•	Keclan, T. N.	Met. Eng.	The design of a 450 ton blast furnace and plant for the production of basic pig iron.
2106	*	Keller, D. E.	Min. Eng.	Suggested possible improvements in the preparation of anthracite.
2112	*	Lutz, U. E. Petzold, W. B.	* * .	Development & working of an iron ore mine in Warren Co., N. J.
2114		North, D. F.	<b>.</b>	The development & operation of a min- ing property of the Marion Mining Co. near Barrackville, Marion Co., W.Va.
2115	***	Reed, T. N. Jr.	•	The prospecting, development and production of petroleum by the Atlas Cil Co. in the Cushing Oklahoma field.
2117	**	Rife, E. J.	Min. Geol.	The oil and gas areas of Penna.
2118	•	Schweyer, B. B. Young, W. P.	Win. Eng.	The development & operation of a mine on the property of the Bald Hill Coal Co.
2128		Kerne, R. S.	Ketallurgy	A study of several mixtures of grey iron & steel for foundry purposes.
2140		Leonard, H. R.	Min. Eng.	The manafacture of four-inch U. S. Navy projectiles.
2141	*	Maginnis, J. B. Stout, C. R.	•	The prespecting, development and operation of a bituminous coal mine in Cambria Co., Pa.
2142	*	O'Dennell, C. L.		The development of the Ebensburg Coal Company's mine at Colver, Penna.
2144	*21	Allshouse, R. L. Fraser, H. H.	<b>#</b> #	Geology and mines of the Dos Cabezos District, Arizona.
2147	**	Baird, D. B.	* *	The development & operation of the "South Fork Mine" in the Coeur d'Alene district, Idaho.

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2149	*21	Beard, G. A. Bersinger, C. E. Nagelberg, P. A.	Min. Eng.	Geology, prospecting, mining and concentrating of the Colorado Carnotite deposits.
2150	**	Bell, J. L.	* *	Golf course construction.
2155	W	Dougherty, J. J. Reller, C. W.	er 16	Development of the Black Crow Mine in the Middle Anthracite Field.
2156	**	Esenwein, I. A.	Met. Eng.	Studies of the effect of nitrogen on steel.
2158	#	Goldstrohm, C. A.	Metallurgy	The design of a 500 ton blast furnace and plant to be located at Duquesne, Pa.
2159	**	Graeber, C. K.	Win.Geol.	The identification of geologic for- mations by microscopic study of samples.
2162	*	Hoffman, C. F.	Met. Eng.	The design of a 500 ton blast furnace and plant to be located at Johnstown, Penna.
2163	**	Holden, R. F.	Min. Geol.	Geology of Deering, N.H. and vicinity.
2164	₩.	Johnston, C. D.	Net. Eng.	The design of a 150 ton copper smelter for the Thompson Copper Co., Creville, California.
2166	*	Kern, T. C.		The design & operation of a basic open hearth steel plant to be located at Slatington, Penna.
2172	•	Maxwell, J. R. Jr.	* *	The design, construction & testing of an experimental low temperature coking plant.
2175	•	Newhouse, W. H.	Min. Geol.	Geology & ore deposits of the Park City District, Utah.
2180	*	Pollock, C. R.	Met. Eng.	The design, construction and testing of a low temperature coking plant.
2184	*	Sheffer, Samuel	* *	The design of a 500 ton blast furnace to be located at Johnstown, Penna.
2 <b>189</b>	•	Sutton, G. R.	***	Heat treatment of chrome nickel steel and the design of a heat treating unit
2192	*	Taylor, T. G.	Min. Eng.	The Ganister deposits of Pa., with special reference to their chemical and physical properties.
2193	*	Thomas, S. A.	Het. Eng.	The design of a 150 ton copper smelter for the Thompson Copper Co., Oroville, California.

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2194	*21	Wolf. F. N.	Met. Eng.	An investigation of 35% nickel steel under various heat treatments.
2218	•	Lucresen, G. V.	Kin. Eng.	Pyrometric control in the melting of open hearth and electric steel.
2224	182	Anderson, R. B.	Min. Geol.	Report of the oil possibilities of Lancaster and Chester Counties, Penna.
2225	*	Bace, A. C.		Conditions of deposition in the southern anthragite basin during Pottsville time.
2226		Barclow, J. C. Staud, J. N.	<b>#</b> . <b>8</b>	Sub-surface study of well cuttings.
2227	•	Bittner, L. J.	Met. Eng.	Chemical & physical tests of fire- clays.
2229	*	Brown, I. G.	* *	Effect of case hardening and heat treatment on the strength of oxyacetylene welds.
2231	. 4	Confer, E. B.	Min. Eng.	Development & operation of a bitum- inous coal mine at Snow Shoe, Pa.
2233	88 <b>8</b> 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Eckenrode, J. T.	Met. Eng.	Manufacture of a metallurgical coke by a low temperature process.
2235	•	Ellinger, G. A.	Min. Geol.	Geology of Mifflin County, renna.
2239	*	George, R. B.	Met. Eng.	Some fire clay tests and their relation to the value of fire clay.
2240	#	Good, H. W.	<b>185 137</b>	Study of some effects of heat treat- ment on rustless steel (so called "Stainless Steel").
2246	at	Keller, F. L.	Min. Geol.	Accumulation of oil & gas in the Big Horn Basin, Wyoming.
2249	*	Klinger, E. D.	* *	Study of oil & gas in Montana with reference to their origin.
2250	*	Killinger, ₩. G.	Met. Eng.	Investigation of the durability of a solid carburising material.
2251	賴	Lewis, W. S.	•	Design of a 500 ten blast furnace to be located at New Castle, Pa.
2252	**	Lichtenstein, A.	**	Study of the by-products from low temperature coking.
2253	•	Lincoln, R.	<b>**</b> ***	New critical point in copper sine alloys.
2254	*	McBride, W. N.	<b>~</b> #	Properties & structure of electric welds.

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2255	*22	Mather, C. C.	Min. Eng.	Development & operation of the mines of the Harrison Coal Mining Company of the Broad Top Coal Field, Penna.
2256	<b>10</b>	Moore, J. B.		Development & operation of the Jamison #20 coal mine in Westmore- land County, Pa.
2259	•	Recco. F. H.	10 10	Possibilities of separating coal from slate by the Flumb Air Jig.
2260	*	Reichenbach, N. H.	<b>11</b>	Development & equipment of a mine in the Shamokin, Penna, anthracite district.
2263	• •	Shaffer, M. A.		Prospecting, development and opera- tion of a mineral property located at Goldfield, Nevada.
2264	#	Smith, T. C.	Met. Eng.	Study of certain heat resisting alloys.
2266		White, P. F.	Min. Eng.	Development & operation of the Welfpit mines in Pike Co., Ky.
2267	4	Wilson, P. C.	<b>a</b> **	Coal mine prospecting, development and operation in Warrick Co., Ind.
2 <b>278</b>	<b>*</b>	Kern, T. C.	Metallurgy	Investigation of solid carburizing materials.
2280	**	Learn, R. M.	•	Eature, formation and prevention of galvanizing drosses.
2294	<b>s</b> 9	Succep. J. A.	Met. Eng.	Study of the causes, the effects of, and the remedies for typical defects in steel forgings.
2295		Taylor, T. G.	Min. Geol.	Silies refractories of Pennsylvania.
2301		Levinson, J.	Met. Eng.	Study of the heat treatment of some molybdenum steels.
2302	•	frout, P. H.	<b>98 58</b>	Investigation of the acid resisting ferro-silicons.
2303	*23	Alexander, J. R.	14 H	Study of macrographic etching reagents.
2306	•	Barth, A. L.	Min. Bng.	Development & operation of the Crow Foot mine near Bisbee, Arizona.
2310	**	Czarnecki, J. J.	Met. Eng.	Localization of case carburizing by preventative paints.
2311	<b>*</b>	Dewees, E. J.	Min. Geol.	Peg model map of Bryan Heights Salt Dome

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2312	.*23	Durfee, W. W.	Met. Eng.	Etching reagents for developing the microstructure of steel.
. <b>23</b> 13	*	Eisler, C. R.	Kin. Eng.	Development & operation of a mine in double thick upper Freeport coal seam in Allegheny Co., Pa.
2316	*	Gingrich, E. M.	Met. Eng.	Effect of the bluing operation upon the physical properties of a dlico-maganese steel.
2317		Greth, N. R.	ti #	Effect of bluing and of strawing upon the physical properties of nickel steel.
2318	#	Habgood, S. K.	Min. Eng.	Development & operation of the Daisy Coal mine, Cambria County, Pa.
2319	. *	Hahman, W. F.	<b>it 16</b>	Development & operation of a mine in the Pittsburgh coal seam in Carroll Township, Washington Co., Pa.
<b>23</b> 20	•	Hartley, C. E.	## ##	Development of a coal mine in the Pittsburgh coal seam near Browns-ville, Pa.
<b>2</b> 321	**	Herbst. G. E.	Met. Eng.	Investigation of a few defects found in extruded brass.
2325	#	Kuhn, C. D.	<b>养</b> 杯	Effect of the bluing treatment on the physical properties of a plain carbon steel.
23 <b>26</b>	**	Kuhns, G. C.	Min. Eng.	Development & operation of the Sigsbee mine in Fayette County, Pa.
2327	16	Miller, C. G.	•	Development & operation of a bitum- inous coal mine in Cambria Co., Pa.
<b>252</b> 8		Huffley, J. B.	<b>n</b> ( ) ( )	Development of a bituminous coal property in the "D" or Lower Freeport seam in Pine Twp., Indiana Co., Pa.
2329	4	Nystrom, C. A.	Met. Eng.	Study of the preparation and heat treatment of Duralumin.
2330	. #	Obert, P. K.	Kin. Eng.	Development & operation of a bitum- inous coal mine property in Cherry- hill Twp., Indiana Co., Pa.
2332	•	Rose, G. S.	Met. Eng.	Comparative tests for zinc protect- ive coatings.
2 <b>333</b>	**	Seig. W. W.	• • • •	Investigation of the effects of tine antimony, iron and nickel on commercial extruded brass rods.
2334	•	Sells, G. D.	弊 信	Heat treatment of copper, chromium and nickel alloys.

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2335	*23	Silverstein, A. H.	Kin. Eng.	Exportation of coal.
2336	*	Straup, C. W.	Met. Eng.	Effects of temperature and pressure on the sherardizing process.
2337		Ray, W. C. and Tritt, J. S.	Min. Geol.	Sub-surface correlation of geological formations by the determination of the percentage.
2339		Wetzel, H. E.	Min. Eng.	Prospecting, development & operation of the Jacobs Creek mine, Westmore-land Co., Pa.
2342		Zorichak, J. J.	Min. Geol.	Kottle Creek gas field.
2352		Fisher, L. W.	Geology	Helderberg limestone of Pa.
2375		Straub, F. G.	Met. Eng.	Researches on coking phenomena.
2376	*	Thomas, E. A.	# #	Role of copper in local carburizing.
2379	ię.	Webster, G. E.	* *	Recovery of platinum from the sul- furic acid contact mass at the old hickory ordnance reserve depot.
2386	*	Bauer, Ernest N.		The properties and heat treatment of high-tin-base bearing metals.
2 <b>387</b>	184	Bayles, George E.	Hin. Eng.	The development and equipment of the Big Sandy lease of the Marrowbene Mining Co., Rockhouse, Ky.
2388	•	Bell, Edward M. Jr.	* *	The development of a bituminous coal property in the lower Kittaning seam in Clarion County, Pa.
2389	8	Brenner, R. and Shiseler, W.B. Jr.	a s	Oil froth flotation of some Penna. bituminous coals.
2390		Compbell, Joseph W.	Met. Eng.	The testing of fire-brick under load at high temperatures.
2391		Currie, Robert D.	Min. Eng.	Development of the Ruth consolidated Solliers Co., Mine No.3, Moss Creek, Pa.
2392	•	Davis, H. S.	19 15	The development & operation of a coal mine in the Pittsburgh seam.
2393	*	DeChicohis, R.	Geology	The petrography of the ordevician limestones of central Pennsylvania.
2394	8	Decker, J. A.	Met. Eng.	The behavior of mild steel under load at elevated temperatures.
2395	*	Geist, A. F.	<b>#</b>	The properties and heat treatment of high carbon spring steel.
2394	•	Graham, Thomas A.	* * .	Quenching oils.

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2397	*24	Grenell, L. H.	Net. Eng.	The electrical resistivity of certain refractories.
2399	n	Hassel, W. G.	a s	An investigation of plain carbon cast steel and nickel cast steel under various heat treatments.
2400	n	Henry, T. C.	Min. Eng.	Standardization of coal mine ventilation laws.
2401	#	Hess, W. B.	D\$ ***	Development & equipment of an anthracite mine near Shenandoah, Pa.
2403	ts	Johnson, Carl P.	Met. Eng.	The experimental methods employed in the formation of diffusion alloys".
2404	n	Johnston, G. H.	Min. Geol.	Studies of the Upper Devonian and Pottsville formations of Western Venango County, Pa.
2406	Ħ	Ludwig, R. E.	Met. Eng.	A study of the relation of the microstructure of stainless steel to its resistance to corrosion.
2407	<b>u</b> -	Marshall, F. R.	19 41	The behavior of mild steel under tension at elevated temperatures.
2408	9	Mitchell, D. R.	Min. Eng.	The development & operation of a Clearfield County coal mine.
2409	#	Linn, J. H. and Price, S. G.	Wet. Eng.	The utilization of blast furnace slag in the manufacture of paving block.
2412	*	Singer, E. V.	89 <del>89</del>	The utilization of coal ashes in the manufacture of fire brick.
2413	<b>.</b>	Thomas, R. M.	et ss	The desulphurization of cast iron with special study of the action of high soda slags.
2414	**	Wilhelm, A. K.	Min. Geol.	Geology of the conemaugh formation around Saxonburg, Penna.
2416	**	Yeager, L. I.	80 43	Billy Creek anticline Johnson Co., Syoming.
2417	Ħ	Yeager, M. W.	Met. Eng.	The effects of various heat treat- ments on the physical and micro- scopic properties of a Vanadium bronze.
2418	**	Baird, D. B.	Vining	Mining methods in the Panther Creek district of the Pa. anthracite region, Pts. one & two.
2450	125	Ackerman, M. J.	lin. Ing.	The development & mining of the limestone rock at Bellefonte, Pa.

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2451	*25	Anderson, H. S.	Met. Eng.	A study of pickling solutions and inhibitors.
2452		Bartells, B. H.	# #	Salt baths for the heat-treating of steel.
2453	*	Black, W. R.	<b>99</b> - 489	Low temperature coking of some Pennsylvania coals.
2454	**	Agan, F. A.	<b>98</b> • • • • • • • • • • • • • • • • • • •	The desulphurization of pig iron by means of soda ash.
2456	**	Everett, W. W.	Min. Eng.	The development & operation of an anthracite property near Plymouth, Pa.
2457	*	Fast, F. L. Jr.	Met. Eng.	A study of the application of centrifugal force to the separation of antimony from lead & lead tin alloys.
2458	**	Fox, R. G.	Min. Eng.	The development & equipment of a coal property in the western middle anthracite coal region, Pa.
2459	**	Gallagher, F. J.	9 (6	The development & operation of an anthracite coal mine in the northern anthracite field.
2461	•	Gray, James		Development of the Vesta mine No.2 near Charleroi, Pa.
2462	*	Hilburn, F. E.	Min. Geol.	Oil & gas fields of northeastern Wyoming.
2463	**	Johnston, George	Min. Eng.	The prospecting & development of the Toby mine, Elk Co., Pa.
2464	•	Kaley, H. W.	Min. Geol.	The occurrence and origin of zinc ores at Mascot, Tenn.
2465	45	Keiser, H. D.	Min. Eng.	Safety regulations for the use and handling of explosives is metal mines.
2468	**	Moyer, P. R.	<b>25</b> 48	Prospecting, development & operation of a mineral property located at Caribou Lake, Nova Scotia, Canada.
2469	*	Norton, B. W.	Met. Eng.	Microstructure & mechanical properties of electric-arc and exyacetylene welds of mild steel.
2470	#	Oster, H. S.	Min. Eng.	Development & operation of a bitum- inous coal mine in Cambria Co., Pa.
2471	**	Peterson, C. A. & Phillips, G. R.	44 #	Effect of diameter ratio of feed on work of the plumb pneumatic jig.

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2472	*25	Price, D. J.	Min. Eng.	A study of gas and dust explosions in Pennsylvania bituminous coal mines.
2473		Riddle, F. W.	<b>肆 . 将</b> .	The development of the Yellow Creek Coal Co. of Indiana County, Pa.
2475	• • • • • • • • • • • • • • • • • • •	Simmons, A. C.	<b># 19</b>	The development & operation of a lead zinc wine near Joplin, Mo.
2476	19	Smith, R. H.	Geology	A study of the bentonite occurrences in Central Pennsylvania.
2 <b>47</b> 8	*	Wem, R. L.	Met. Eng.	Grain growth in copper.
2479	**	White, E. H.	86 56	Nitrogenizing of stainless steel with the object of improving its cutting hardness.
2480	**	Woomer, J. W.	Kin. Eng.	The prospecting, development & operation of a bituminous mine in North Cambria County, Pa.
2492	a	Graeber, C. K.	Geology	The geology and petrography of the mica peridotite dike at Dixonville. Pa.
2499	18	Knight, O. A.	Met. Eng.	A study of the behavior of mild steel under tension at elevated temperatures.
2510	<b>19</b>	Sieg, W. W.	# #	A study of the behavior of mild steel under tension at elevated temperature.
2511	# .	Snyder, R. W.	<b>18</b>	The design, construction & operation of an electric furnace for the testing of metals.
2 <b>52</b> 8	*	Owings, C. W.	.Mines & Met. (part one)	Methods and costs of rock-dusting bituminous coal mines.
2529	**		(part two)	
25 <b>39</b>	126	Apgar, A. D.	Min. Eng.	Prospecting, development & exploita- tion of a low grade copper deposit in the Seven Devils region of Idaho.
2540	*	Barowskas, A. J.	* *	Development & operation of a copper mine in central Arizona.
2541		Bartleson, Edith	Min. Geol.	Petrography of black river limestone at Bellefonte, Pa.
2542	*	Bartram, P. L.	* *	Geology of the Bruner Pool, Tulsa County, Oklahoma.
2543	•	Beardsley, W. R.	<b>.</b>	Occurrence of oil & gas in the northern part of the Pittsburgh Quadrange.

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2545	*26	Boote, S. C.	Met. Ing.	Combustibility & reactivity of coke as factors of fuel economy in the blast furnace.
2547		Davis, L. W.	Min. Sng.	Development & operation of a bitum- inous coal mine in lower Yoder twp. Cambria County, Pa.
2549	a	Gingerich, H. R.	Ceramic Eng.	Design & equipment of a Portland Cement plant.
<b>255</b> 0	Ħ	Hess, R. M.	Min. Geol.	Correlation of the bentonite beds in the ordovician of central Penna.
2551	*	Holliday, Joseph	Min. Eng.	Development & operation of a bitum- inous coal mine near Bristol, W.Va.
2553	<b>15</b>	Hughes, H. H. Jr.	Kin. Geol.	Use of stah figures in the determination of crystal symmetry.
2554	**	Jones, C. N.	Min. Eng.	Development & operation of a low grade gold ore mine in Nevada.
255 <b>5</b>	**	Kalbach, W. R.	核 柳	Development & operation of the Pequot mine located in the western end of the southern anthracite basin, Pa.
255 <b>7</b>		Kunigonia, S. J.	Met. Eng.	Esthetic improvement of highways as looked at from an economic and social standpoint.
2559	**	McCooley, M. I.	Min. Eng.	Advantages and disadvantages of rubber and steel conveyors.
<b>25</b> 60	*	Mairs, E. D.	Met. Eng.	Investigation of the densities of molten aluminum-zinc alloys at elevated temperatures.
2561	**	Meyer, J. S.	18 49	Behavior of medium high carbon steel under load at elevated temperatures.
2563	#	Miller, Franklin	Min. Eng.	Results of the Trent oil process on a high ash coal.
2564	#	Page, L.B. and Fritchman, H. D.	# <b>**</b>	Treatment of fine bituminous coal.
2565		Parker, H. B.	Met. Eng.	A study of slip-lines in metals.
2566	#	Parry, G. W.	Min. Eng.	Results of the Trent oil process on a high ash bituminous coal.
2569	*	Siegel, C. G. and Troxell, J. R.	**	The treatment of anthracite silt.

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2570	126	Smith, L. L.	Met. Eng.	Tests on quenching oils.
2571	*	Stonebraker, W. I.	Min. Ang.	Development & operation of a bitum- inous coal mine in Somerset Co., Pa.
2574	*	Trevorrow, G. C.	<b>u</b>	Methods of mining applicable to loading machines and a loading machine layout.
2575	*	Wallace, J. J.	B •	The prospecting, development and operation of a bituminous coal mine in Butler Co Pa.
2576	•	Weaver, H. F.	* *	Development & operation of a rock asphalt mine near Leitchfield. Grayson Co., Ky.
2577	Ð	Weitzenhofer, H. S.	Met. Eng.	Effect of nickel, chromium and sixconium on the microstructure of cast iron.
2578	•	Wolfe, Karl	Min. Eng.	Development & operation of a copper mine in the Miami district, Arizona.
2579	*	Zimmerman, R. B.	64 ab	Development & operation of a bitum- inous coal mine in Cambria Co., Fa.
2581	Ħ	Bucky, P. B. Engine	or of Mines	Electricity in mining.
2602	٠	White, Paul P.	Wining	Performance of chance separator on anthracite coal.
2605	*	Seymour, L. D.	Met. Eng.	An experimental study of the coking of coal.
2619	*	Price, D. J.	Mining	Some aspects of dust explosions with special reference to coal mines.
2627	127	Abernethy, D.C.	Win. Eng.	Development & operation of a bitum- inous mine in the lower Freeport vein near Brockway, Fa.
2628	***	Allen, J. D.	Met. Eng.	A comparative study of the structure and properties of small re-rolled steel rails.
2629	*	Edmunds, G. H.		The effect of time and temperature on the thickness of Sherardized coatings and their resistivity to corrosion.
2631	"	Fritts, C. C. and Hosler, N. W.	Min. Geol.	Oil & gas possibilities in Muncy Valley, Lycoming Co., Penna.
2632	**	Gallagher, R. T.	Min. Eng.	Development & operation of a bitum- inous coal mine in the upper Kittaning or C seam, Johnstown, Pa.

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2633	127	Holmes, F. B.	Ceramie Eng.	The production of colors in face brick.
2634	•	Johnson, K. W.	Net. Eng.	The effect of heat-treatment on the hardness of high speed steel.
2635	*	Kahan, B. B.	Min. Eng.	The importance of humidity in mine atmosphere.
2636	. 18	Kirk, T. H.		Development & operation of a coal mine in the Uniontown, Penna, district.
2637	*	Lane, N. B.	Met. Eng.	A study of the graphitization theory and the effect of small additions of chromium and nickel to cast irons
2639	<b>G</b>	Loscalzo, D. A.	Min. Eng.	The prospecting, development and operation of the Blue Belle copper mine in Miami district, Arizona.
2640	4	McCall, M. C.	* *	The development & operation of a coal mine in Jefferson Co., Penna.
2641	*	McCarthy, P. J.	Net. Eng.	Grain growth in metals.
2642	**	McDowell, S.	Min. Eng.	The prospecting, development and operation of the Bulldog copper mine at Paris, Arizona.
2643	*	Mitchell, J. B. & Reed, J. C.	Win. Geol.	A geologic report on Greenwood two.
2645	*	Nied, S. J.	Win. Eng.	Development of a coal mine in the Pittsburgh coal seam in southwestern Penna., Redstone township.
2646	•	Nyquist, H. C.	4 4	The prospecting & development of the Toby creek coal basin, Elk Co., Pa.
2647	**	Pazdzierz, J. S.	• •	The development & operation of the Cilio Brien mine in the Sewickley, Paregion.
2648	*	Putman, N. C.	Wet. Eng.	Causes of failure in railroad rails.
2649	if	Robb, J. F.	* *	An investigation of a solid carbur- izing compound.
2650	*	Ulf, F. E.	*	A history of the early charcoal iron furnaces of Centre Co.
2651	•	Ventre, Thomas	Fin. Eng.	The development of an anthracite mine in Old Forge, Penna.
2652	**	Weis, Joseph	Ceramic Eng.	Acid resistant enamels for cast iron.

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2858	*29	Rugh, B. W.	Ceramic Eng.	Comparison of dry press, stiff mud and laboratory fired dry press brick.
2859	*	Schmisky, H. D.	Min. Eng.	Development of an anthracite coal mine in Short Mountain near Lykens, Pa
2860	*	Shaw, M. C.	Ceramic Eng.	Matt enamels for cast iron and sheet steel.
2861	a .	Slenker, John	Met. Eng.	effect of moisture content in mold- ing sand upon the physical proper- ties of gray cast iron.
2862	#4	Smith, W. G.	65 15	Apparatus for simulating atmospheric conditions in accelerated corresion-testing.
2863	Ħ	Stouffer, G. 3.	Min. Sng.	The development and equipment of the Maimie mine in the vicinity of Kasaan Peninsula, Alaska.
2864	*	Watt, R. B.	<b># 15</b>	Development of the Fulton Seam of the Defiance Mine Company.
2866		Wolf, W. H.	Ceramic Eng.	Lead and leadless enamels.
2932	Ħ	Wint, L. C.	Min. Eng.	Development & operation of an anthracite mine at West Scranton, Pa.
2933	9	Wong, R. K.	Ceramic Eng.	The effects of varying composition on the properties of cover coat enamels.
2935	*30	Buck, Carl	Met. Eng.	The coating of sheet steel with antimony-bearing lead.
2936	16	Burgener, Glen	Geology	A study of the lower devonian formation at Mt. Rock, near Lewistown, Pa.
2937	ig .	Cavanaugh, D. J.	Ceramic Eng.	Obtaining a glaze for face brick and a cover for cork brick suitable for outside purposes.
2938	#	Corre, H. A.	Min. Eng.	A comparison of the different types of haulage.
2939	n	Dickson, W. J.	Met. "	Effect of the primary rate of cool- ing upon the structure of cast iron.
2940	44	Edmunds, J. C.	## ###	The possibility of the diffusion of copper or of chromium into a medium high carbon steel
2941	*	Faust, G. T.	Geology	Notes on crystal stchings.
2942	194 194	Gethin, H. W.	Ceramic Eng.	The possibilities of manufacturing tile at a face-brick plant.

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2830	*29	Anderson, J. A.	Geology	The geology of Nippenose Valley.
2831	**	Arts, R. T.	Ein. Eng.	The development & equipment of an anthracite mine, Tower City, Pa.
2832	*	Barnard, F. S.	H #	Development & operation of the Lucky Strike Mining Co. of Arisona.
2833		Barnsley, E. R.	Geology	Stratigraphy of the lower silurian formations at Mann Marrows, Lewistows Penna.
2834	**	Bendick, Stephen A.	Nin. Ing.	Development of an anthracite mine near Wilkes-Barre, Pa.
2836	46-	Claypool, O. W.	Met. Eng.	A study of mill scale.
2837	#	Corgan, Joseph A.	Min. Eng.	Development & equipme t of an anthracite mine in the vicinity of Kingston, Pa.
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2839		Feight, C. D.	Met. Eng.	An experimental study of the exer- thermic and endothermic reactions during the ceking of coal.
2841	a	Graham, Bruce	Min. Eng.	Prospecting, development & operation of the Ollie C Mine, Gilpin, Colo.
2842	: <b>#</b>	Haberlen, C. F.		Development and Operation of the Bunker Hill mine in Idaho.
2845	•	Kerr, W. S.	Net. Eng.	Grain growth of pure magnesium.
2846	<b>**</b>	Leibig, & C. C	eramic Eng.	Colored sanitary ware glazes at core sight.
2847	•	Lightner, M. W.	Met. Eng.	The micros tructure and hardness of certain iron-nickel alloys.
2848	***	Mahoney, R. S.	Geology	Stratigraphy of lower cilurian shales at Will Hall, Pa.
2849	**	Mathes, Joseph	Net. Eng.	Case hardening of steel and non- ferrous alloys by nitriding.
2850	#	Maximon, S. B. C	eramic Eng.	A microscopic investigation of chromite brick.
2851	Ä	Meyer, C. F.	Min. Eng.	Development & Operation of the Bull- dog mine, Eiami, Arizona.
2853	*28	Patton, F. S.	Geology	Peneplains in Central Pennsylvania.
2854	129	Petusky, Joseph	Min. Eng.	Development & operation of an anthracite mine near Mount Carmel, Pa.
2857	*	Rishel, C. L.	* *	Development & operation of a copper mine in the Ketchikan district, Prince of Wales Island, Alaska.

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No.	DATE	Nams	DEPT.	SUBJECT
2711	*28	Savenius, 0. I.	Geology	A micro study of the insoluble residues of the Bellefonte, Axeman
2712	9	Todd, George H.	Met. Eng.	Aluminum as a deoxidizer of steel and its effect on the physical
2713	*	Townsend, Malcolm H.		Age hardening in lead-antimony system.
2716	*	Brookes, M. E.	# #	The effect of nickel on the solu- bility of tin in copper.
2733	•	Irvin, R. W.	# #	Some pertinent phases in construction and processing pertaining to
2736	•	Knight, O. A.	# #	A study of the heat-treatment of rock drill steels for drilling lime-stone.
2749	*	Smith, H. I.	Min. Eng.	The iron ore deposits and steel industry of Jugoslavia.
2750	*	Straub, F. G.	Met. Eng.	Embrittlement of boiler plate.
2764	群	Abson, G. W.	H 10-	A re-survey of the copper antimony system of alloys.
2 <b>7</b> 66	*27	Bair, G. J. Ce	ramic Eng.	Philosophical aspects of city plan- ning.
2 <b>767</b>	**	Beeman, C. H.	Min. Eng.	The development and operation of the Wetherly mine at Cornwall, Pa.
2769	*28	Croyle, M. C.	# #	The development & operation of a bituminous coal mine near
2770		Entrekin, L. J.	<b>*</b>	The development & operation of a bituminous coal mine at Ehrenfeld.
2772	**	Herbein, S. D.	Met. Eng.	An investigation on banking a nickel steels.
2773	**	Maise, Sarl R.	Min. Eng.	The development of a coal mine in the Pittsburgh seam
2774	*	McKelven, James H.	Met. Eng.	The rerolling of steel rails.
2775	**	Moyer, F. T.	Min. Geol.	Investigation of the magnetite ore deposits near Reading, Pa.
2778	•	Saracino, Angelo J.	Min. Eng.	The development & operation of an anthracite coal mine
2785	*	Hall, P. R.	Met. Eng.	The effect of adding nickel chromium and sirconium on the growth

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2653	*27	Wexler, M. L.	Ceramic Eng.	Ceramic micrography by reflected light.
2654		Williams, E. F.	Min. Geol.	The occurrence of concretionary celestite in a dolomitic limestone at Ganister, Pa.
2655	•	Williams, M. B.	Min. Eng.	The development & operation of a bituminous coal mine in southern Cambria Co., Pa.
2656	**	Younkins, J. A.	n û	The development of the Hanley clay property in Sefferson Co., Pa.
2668	**	Hall, P. R.	Met. Eng.	A study of the effects of adding small percentages of molybdenum to gray cast iron.
2676	*	Mitchell. D. R.	Min. Eng.	Mining, cleaning & utilization of central Penna, white clays.
2694	•28	Daw, J. H.	<b>69 48</b>	The development of a coal mine.
2695	*	Dow, A. A.	Met. Eng.	A study of blast furnace slags.
2696	78 ·	Gahagen, S. M.	• •	The heat treatment of a high-carbon high - chromium steel.
2697		Geisewite, C. F.	<b>at 11</b>	The making of stainless steel and stainless iron and the effects of heat treatment.
2698		Gettig, M. S.	• • • • •	Precipitation and spheroidization of carbide in low carbon steels.
2700	*	Reed, J. C.III. & Holl, W. H. &		The development and utilization of fire clay - deposit at Blue Ball
2701	9	Hoover, C. H.	Ceramic Eng.	A study of the production of Belleck China by the addition of coloring.
2703	*	Howard, U. W.	Min. Eng.	The exploration, prospecting & de- velopment of a gold mine.
2705		Kennedy, R. G. Jr	. Met. Eng.	Relation between macrostructure and microstructure for the same rate.
2707	**	Maurey, J. B.	Ceramic Eng.	The effect of mineralizers on the temperature of transformation of
2 <b>70</b> 8	#	Moser, D. W.	Min. Eng.	The development & operation of an anthracite mine in Lackawanna.
2709	*	Maus, L. L.	• •	The development & equipment of an anthracite mine near Girardville, Pa.
2710	# .	Parker, H. A.	Met. Eng.	A study of the rate of rise of silicates in steel.

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2943	*30	Hall, C. G.	Ceramic Eng.	A comparison of some of the proper- ties of super-refractories.
2944	• ,	Hunt, I. W.	Min. Eng.	Development of a bituminous coal mine at Louise, Westmoreland Co., Pa.
2945	n	Jones, G. T.	Met. Eng.	The study of grain growth in Allegheny metal and the study of prolonged heating at low temperature on ascelogy.55.
2946	**	Koch, J. A.	en ****.	The study of the microstructure of wire used for wire rope.
2947	**	Leichliter, Van H	• • •	The causes of fracture of forged steel axels and the method of their manufacture.
2948	w	Loy. M. S.	Geology	A peg model map of Western Penna.
2949	44	Mehring, C. Leste	r Win. Eng.	Development & operation of a bitum- inous coal mine in the upper Freeport near Portage, Penna.
2951	•	Pinkerton, H. L.	Ceramic Eng.	Study of the possibility of pressure having an effect on the spalling property of silica and fireclay refractories.
2952	25	Reed, E. H.	Met. Eng.	The microstructure and physical properties of oxy-acetylene and electric arc welded high cremium alloys.
2953	*29	Ritter, J. P.	* *	The effects of heat-treatment on the mechanical properties of duralumin.
2957	<b>19</b>	Williams, W. E.	Ceramic Eng.	A comparison of gannister and bankite for use as refractory material.
2958	*30	Straub, P. M.	<b>16 6</b>	The effects of substituting barium and zinc for lead in white cast-iron cover coats.
2959	Ħ	Wilcox, Ralph	Met. Sng.	The flow of metal in the forging of extruded brass.
2960	糠	Woods, Rex W. & Hinkle, B. W.	Geology & Pet. Eng.	
2962	129	Affelder, W. L.	Wining	The use of graphic charts in the
2973	*30	Armiento, D. F.	Met. Eng.	A study of methods of growing single crystals of sinc.
2975	•	Bair, G. J.	Ceremic Eng.	The determination of the resistance of refractory bricks to abrasion at high temperatures

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2989 *30	Currie, R. D.	Mining	Safety in Pennsylvania coal mines.
2990 *	Custer, J. D.	Ceramics	The development of crucibles for manufacture in the laboratory.
2999 *	Fox, E. G.	Mining	Methods of scraper mining and types of scraper loaders used in the anthracite coal fields of Penna.
3012 "	Long. J. R.	Met. Eng.	Some experiments in nitriding of steel.
3017 "	Mclaren, A. W.	45 B)	A study of certain factors involved in the nitriding of steels and cast irons.
3026 *	Navrocky, E. R.	Min. Eng.	Anthracite in Fennsylvania.
3028 *	North, D. F.	Mining	Modern explosives for industrial work.
3044 *	Shaw, Myril C.	Ceramic Eng.	The hot-working of clay and the re- sulting effects upon the physical properties and structures of the pro- duct.
3070 *29	Rugicka, John	Met. Eng.	A study of the static-tensile-tests of rolled zinc.
3072 *30	Noble, L. D.	* *	A study of the effect of heat-treat- ment upon duralumin.
3073 *	Snyder, N. H.	Ceramic Eng.	A reproduction of a tile picture.
3081 *	Zimmerman, R. E.	Mining	Coal froth flotation at Champion #1. preparation plant of the Pit taburgh Coal Co.
3082 *31	Ammerman, J. H.	Ceramics	A study of the manufacturing possi- bilities of anthracite breaker waste.
3083 *	Benner, Richard	Met. Eng.	A study and comparison of the corres- ion properties of different wrought irons.
3085 *	Cashdollar, H. L.	Pet. Eng.	Development & operation of a gas field in Somerset Co., Penna.
3086 *	Chapman, Molvin R.	Kin. Eng.	
3088 *	Dilliard, H. L.	Met. Eng.	A study of the effects of temperature and rate of leading on the tensile strength and alongation of rolled sinc.

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3089	*31	Drill, W. C.	Met. Eng.	Grain growth of cold worked 3 S Alum- inum sheet.
3090	a	Fallon, Fred	Min. Eng.	Development & operation of a bitum- inous coal mine near Bicknell, Ind.
3091	**	Flickinger, F. W.	Met. Eng.	Effect of electric current on the hardness and depth of case produced in the nitriding of steel.
3092	#	Frank, R. W.	<b>18 8</b>	Effect of the electric current on the introduction of nitrogen into steel.
3093	**	Greagor, J. W.	<b>15 17</b>	A study of the microstructure of ex- truded and forged brass.
3094	**	Harper, C. S.	Min. Eng.	Determination of the coefficient of frictional resistance.
3095	**	Henkel, C. F., Jr.	Ceramics	The modulus of rupture of silica brick at elevated temperatures.
3096	# .	Holmberg, M. E.	Met. Eng.	Grain growth of cold worked 38 Alumin- um sheet.
30 <b>97</b>	**	Kilpatrick, F. C.	* *	Effect of the primary rate of cooling upon the structure of cast steel and upon the structures resulting from subsequent heat-treatment.
<b>309</b> 8	4	Ludwig, G. R.	Met. Eng.	The construction of a retoirt suitable for low temperature coal carbonization.
<b>3</b> 09 <b>9</b>	•	Relaughlin, D. C.	Pet. Eng.	The effect upon the flow of crude oil through tubes of minute diameter under conditions of low temperatures and varying pressures.
3100		McNeal, C. F.	# #	Data on effect of temperature and pressure from Newton gasoline absorption plant.
3101	•	Miller, A. Jr.	Met. Eng.	Heat-treatment of white cast iron with special reference to the production of malleable iron by the short cycle anneal.
3103	a	Hicoden, W. F.	** **	A study of the microstructure of ex- truded and forged brass.
3104		Parana, A. L.	Ceramic Eng.	Effect of variation in composition of fire brick on their resistance to abrasion, spilling and slag action.
3106	*\$	Simonin, J. E.	Met. Eng.	A microscopic study of adamite rolling- mill plugs used in the manufacture of semmless tubes.
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3107	*31	Spencer, P. S.	Met. Eng.	The study of welds in enduro stainless steel.
3109		Wetzel, A. V.		The effect of variations in chemical composition woon the microstructure of extruded and forged brass.
3110	#2	Wilkins, R. C. #011	& Gas Eng.	Retentivity of oil sands.
3143	*	Krebs, W. A. W.	Pet. Eng.	Gas properties of Rowata Co., Oklahoma.
3180		Woomer, J. W.	Mining	The recovery of "Big Vein" ecal in Maryland and its future application to other coal fields.

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