

- Cadmium carbonate, thermodynamic properties. B 384
 Cadmium chloride, vapor pressure TP 360
 Cadmium metasilicate, crystalline, heat and free-energy-of-formation values, tabulation RI 5466
 heat of formation, reaction scheme, tabulation RI 5466
 Cadmium oxide, heat and free-energy-of-formation values, tabulation B 542
 Cadmium powder, explosibility RI 3722
 flammability RI 3722
 Cadmium sulfate, thermodynamic properties. B 406
 Cadmium sulfide, recovery from zinc sulfide concentrates, by volatilization RI 4876
 thermodynamic properties B 406
 Cadogan No. 1 mine, Pa., coal, washing characteristics RI 4788
 Cady mine, Mo., secondary limonite iron-ore deposits, investigation RI 4314
 Cages, coal-mine, safety catches, testing IC 7290
 metal mines, regulations B 75
 mine, safety devices, Mine Safety Board decision IC 7002
 signaling from, method IC 6161, 7305
 Cage method, ventilation raise by, in Irene shaft, Colo. IC 7868
 Cahaba field, Ala., coal, table cleaning RI 3234
 Caisson disease, etiology TP 285
 mitigation, by helium-oxygen mixtures, possibilities RI 2670
 symptoms TP 285
 Caking, coal and coke, effect of treatment with chemicals B 404
 Calamine-cerussite ores, flotation tests RI 3370
 Calamine ores, flotation tests RI 3370
 Calaveras Cement Co., Calif., limestone, quarrying methods and costs IC 6610
 Calaveras County, Calif., asbestos, deposits IC 7860
 mines, survey B 413
 Calcining processes, U.S. Lime Products Corp., Nev., Henderson calcining plant IC 7517
 Sloan mill IC 7517
 Calcite, crushing resistance RI 2948
 measurement, by scleroscope RI 3223
 flotation RI 3799
 in coal, characteristics TP 648
 properties RI 2238
 removal, from fluor spar RI 2264
 Calcite deposits, investigation RI 4554
 Calcium, annual data MY 1938-50,
 1952 (vol. I)-1958 (vol. I)
 as fertilizer, use IC 6830
 debismuthizing lead by B 407
 entropies B 350, 394, 434, 476, 477
 fusion, heats B 393
 heat and free energy of vaporization equations B 388
 heat content, data B 476
 in salt, estimation, by spectrographic analysis RI 3370
 in wolframite concentrates, determination, by fluorescent X-ray spectrography RI 5416
 specific-heat equations B 371
 vapor pressure 383
 Calcium aluminate, production, in electric furnace RI 4527
 Calcium aluminate electric-furnace slag, extraction of alumina from RI 4528
 Calcium borate, production, from colemanite, by carbonic acid leach RI 3525
 Calcium boride, production, electrolytic methods RI 3500
 Calcium carbide acetylene-water vapor mixtures, reactivity, determination IC 7446
 limestone in use IC 7169
 manufacture B 67, 77
 thermodynamic data B 407
 Calcium carbonate, thermal decomposition B 286
 thermodynamic properties B 384
 Calcium chloride, annual data MR 1924-31;
 MY 1932-51
 desulfurization of pig iron with RI 3419
 for dust abatement in mines B 20; MC 3
 preparation IC 6781
 properties IC 6781
 trade data IC 6781
 use, for allaying dust in coal-mine roadways RI 3828
 vapor pressure TP 360
 Calcium compounds, annual data MY 1954
 (vol. I)-1958 (vol. I)
 properties, bibliography RI 2534
 Calcium nitrate, decomposition, energies and equilibria RI 3776
 Calcium nitride, thermodynamic properties B 407
 Calcium oxides, heat and free-energy-of-formation values, tabulation B 542
 in magnesium oxide, determination RI 2138
 Calcium sulfate, forms, preparation TP 625
 thermodynamic properties B 406
 Calcium sulfate retarders, for cement clinker TP 451;
 RI 2705
 Calcium sulfide, thermodynamic properties B 406
 Caldwell mine, Calif., manganese ore, concentration test RI 5163
 Caledonian brown, properties IC 6504
 California, Abbott quicksilver mine, investigation RI 4558
 Ajax Tungsten Corp., tungsten ore, milling practices IC 7912
 Akoz mine, ore, exploration RI 4144
 alunite, resources RI 3561
 Alameda County, asbestos, deposit IC 7860
 Amador County, asbestos, deposits IC 7860
 American Eagle copper-zinc mine, investigation RI 4760
 antimony, deposits MS 1
 antimony ore, beneficiation RI 3484
 dense medium tests RI 4616
 froth flotation tests RI 4616
 Antimony Peak district, investigation RI 4505
 Argonaut Mining Co., Argonaut mill, milling methods and costs B 363; IC 6476
 Argonaut mine, mine fire, lessons TP 363; MC 25
 mining methods and costs B 366,
 357, 363, 390; IC 6311
 arsenic, production EP 17
 Atolia Mining Co., milling methods and costs IC 6532
 Atolia tungsten mines, investigation RI 4627
 Bagdad-Chase mine, copper-gold ore, leach-precipitation-flotation tests RI 5842
 barite deposits IC 7845
 barite ore, ore-dressing studies RI 3425
 Bennett mine, scheelite-gold ore, treatment tests, results RI 5087
 bentonite, deposits TP 609
 Berkeley, Bureau of Mines experiment station, work B 175; DAR 1919-21, 1923-36; IC 6060
 Bessemer iron-ore deposit, investigation, summary CAL
 Bessemer iron project, exploration RI 4066
 Big Geysers cinnabar ore, concentration tests RI 4620
 Big Reef claims, oxide manganese ore, concentration tests RI 4846

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- California, bituminous coal, analyses..... B 22, 193
bituminous sandstone, extraction of asphalts
from, study..... RI 4523
Black Magic oxide manganese ores, concentra-
tion tests..... RI 4599
Black Rock tungsten mine, investigation... RI 4210
black sand, deposits..... TP 196
black-sand product, flotation tests..... RI 3370
Blairsdan, gold-bearing dump ore, treatment,
methods..... RI 4758
Blue ledge copper-zinc mine, exploration... RI 4124
Buckeye manganese deposits, investigation... RI 4590
Bud's mine, chromite ore, concentration
tests..... RI 5172
Buzzard mine, gold-zinc ores, tests..... RI 4815
Calaveras Cement Co., limestone, quarrying
methods and costs..... IC 6610
Calaveras County, asbestos, deposits..... IC 7860
mines, survey..... B 413
Caldwell mine, manganese ore, concentration
test..... RI 5163
California iron-ore deposits, investigation... RI 4272
summary..... CAL
carbonate manganese ores, concentration
tests..... RI 4137
Cardinal Gold Mining Co., milling methods
and costs..... IC 7012
Carson Hill Gold Mining Corp., mining
methods and costs..... IC 6940
Canal field, oil, secondary recovery, by gas
injection..... RI 4886
Capitan field, oil, secondary recovery, by gas
injection..... RI 4887
Carbonate King zinc mine, investigation... RI 4522
Castro chromite mine, investigation... RI 4783
celestite, deposits..... IC 7200
Central Eureka Mining Co., mining methods
and costs..... IC 6512
Chapin oxide manganese ore, concentration
tests..... RI 4599
Chemehuevi mine, manganese ore, concentra-
tion tests..... RI 5163
chromite, deposits..... RI 3694R
chromite mines, history..... B 424
chromite ore, beneficiation..... RI 3484
flotation tests..... RI 3370
magnetic separation tests..... RI 3370
clays, thermal analysis..... TP 664
clay samples, analyses..... RI 3737
coal, analyses... B 22, 23, 58, 193, 446; TP 692, 696
briquetting tests..... B 58
carbonizing properties..... TP 692
classification, chart..... RI 3296R
gas-producer tests..... B 13
mine samples, description..... TP 696
origin..... B 38
steaming tests..... B 23
coal beds..... TP 696
coal fields..... TP 696
coal mines, electric circuits, laws..... RI 2224
coal-mine accidents, annual data..... B 69,
115, 196, 241, 251, 275, 283, 293, 319, 341, 355,
373, 380, 387, 397; TP 69, 85, 175, 259, 313,
340, 406, 426, 435, 509.
coal-mine fatalities, annual data..... B 69,
115, 196, 241, 251, 275, 283, 293, 319, 341, 355,
373, 380, 387, 397, 540; TP 69, 85, 175, 259,
313, 340, 406, 426, 435, 509.
coal-mine injuries, annual data..... B 540
Coalinga oil field, study..... B 193
Coastal fields, oil, secondary recovery, by gas
and water injection..... RI 4887
cobalt, resources..... MS 5
Coggins chromite mine, investigation..... RI 4587
California, Collier zinc mine, investigation... RI 4760
Collins No. 1 mine, manganese ore, concentra-
tion test..... RI 5163
Collins No. 2 mine, manganese ore, concentra-
tion test..... RI 5163
Collins Pine mine, manganese ore, concentra-
tion tests..... RI 5163
Colorado Development Co., manganese ore, con-
centration tests..... RI 4985
Consolidated Rock Products Co., mining
methods and costs..... IC 6607
Consumes Gold Dredging Co., scheelite con-
centrates, treatment tests, results... RI 5087
Contact mine, mercury problem..... IC 7206
Contra Costa County, asbestos, deposit... IC 7860
copper, production, summary..... EP 3
copper-gold-silver ore, beneficiation..... RI 3569
Copper Hill copper-zinc mine, copper-zinc ore,
concentration tests..... RI 4927
investigation..... RI 4760
copper mines, history..... B 424
copper ores, composition..... TP 143
leaching tests..... RI 3370
Coso mercury deposit, exploration by rotary-
bucket drill rig, description..... RI 4201
Crestmore limestone mine, Riverside Cement
Co., block caving..... IC 7838
mining limestone, by caving method... IC 6795
crude oil, analyses..... B 291;
TP 74, 346, 554; TP 610, 722; RI 2202, 2235,
2595, 2608, 2846, 2893, 3074, 3362, 5249.
bibliographies..... RI 5249; IC 7470, 7921
Daly mine, manganese ore, concentration
test..... RI 5163
David mine, chromite ore, concentration
tests..... RI 5172
Death Valley National Monument vicinity,
oxide manganese ores, concentration
tests..... RI 4599
Del Monte, sand, beneficiation..... RI 3740
Del Norte County, manganese deposits, investi-
gation..... RI 5369
Del Valle field, oil, secondary recovery, by
water injection..... RI 4887
diatomaceous earth, mining..... B 266; RI 2431
diatomites, description..... B 460
dolomite, deposits..... IC 7226
drift mining..... IC 6612
Edna, bituminous sandstones, recovery of
hydrocarbons from..... RI 4246
El Diablo Mining Co., tungsten ore, milling
practices..... IC 7912
El Dorado copper mine, exploration..... RI 3896
El Dorado County, asbestos, production... IC 7860
El Dorado Limestone Co. mine, diamond-drill-
ing blastholes, description..... IC 7451
electric blasting regulations, quarries..... B 240
electric shot firing, regulations..... RI 2405
Elk Hills field, helium tracer studies..... RI 3897
oil, secondary recovery, by gas injection... RI 4886
Engels Copper Mining Co., Superior concen-
trator, milling methods and costs... IC 6550
Engels mine, mining methods and costs... B 356,
357, 390; IC 6260
explosives, laws..... IC 7255
production, annual data..... TP 69,
86, 107, 159, 175, 192, 231, 259, 291, 313, 340,
358, 380, 406, 426, 435, 467, 478, 509, 540, 558,
606, 627, 636, 647, 658, 665; RI 3257, 3285, 3317,
3350, 3414.
storage inspections..... IC 7398
transportation, regulations..... RI 2528
Fabian manganese deposits, investigation... RI 4580

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

California, first-aid training, results..... IC 6428
flowing wells, waste, prevention..... TP 42
fluorite ore, concentration tests..... RI 4133
fluorspar, mining..... RI 2480
French Hill chromite mine, investigation..... RI 4365
French Hill mine, chrome ore, refractory
properties, investigation..... RI 4929
fuller's earth, deposits..... B 71
Fuqua plant, for topping petroleum..... B 162
gas industry, problems..... RI 2769
gas-lift method, for flowing oil wells..... B 323
gas sands, injected gas, migration through..... RI 3177
General Metals Corp., basic electric furnace
practice, electrolytic manganese, tests,
results..... RI 4861
Gerberville, manganese ores, concentration
tests..... RI 4985
gold, dredging..... B 127, 352
history..... B 121
safety practices..... B 352
production, summary..... EP 3
gold mines, hookworm..... B 139
methane, occurrence..... RI 2303
gold ore, arsenopyritic, concentration tests..... RI 3515
beneficiation..... RI 3228, 3328, 3569
custom plants..... IC 6842
tests..... RI 3515, 3629, 3765, 4790
gold-scheelite placer deposit, sampling and
testing..... IC 6960
gold-silver-barite ore, beneficiation, tests..... RI 3328
gold-silver-lead ore, tests..... RI 3629
gold-silver ore, beneficiation, tests..... RI 3328
flotation tests..... RI 3425
gold tailings, beneficiation..... RI 3569
gold-tungsten ore, beneficiation, tests..... RI 3328
Graham Bros., Inc., Santa Catalina Island
quarry, quarrying methods and costs..... IC 6609
Greely field, oil, secondary recovery, by gas
and water injection..... RI 4886
Greenville, manganese ore, concentration
tests..... RI 4985
Guadalupe mercury mine, investigation..... RI 4682
gypsum, deposits..... TP 155
gypsum industry..... IC 6173
Havasu Lake district, oxide manganese ores,
concentration tests..... RI 4147
Hetch Hetchy water-supply project, safety
practices..... IC 6726
Hidden Hills mine, scheelite ore, treatment
tests, results..... RI 5087
High Plateau mine, chrome ore, refractory
properties, investigation..... RI 4929
chromite, ore, concentration tests..... RI 5172
Hilltop chromite mine, investigation..... RI 4783
Hogan tin mine, investigation..... RI 4609
Hornet mine, acid mine water, precipitation
of copper from..... RI 3746
diamond-drilling blastholes, description..... IC 7451
Huntington oxide manganese ores, concen-
tration tests..... RI 4599
Iceland spar, deposits..... RI 2238
Idaho Maryland mine, ore, flotation..... RI 3275
shaft-sinking methods and costs..... IC 6923
injected gas, migration, through oil and gas
sands..... RI 3177
Ione-Carbondale clays area, exploration..... RI 4213
iron and steel, electric smelting..... B 66, 77
Iron Mountain iron-ore deposits, investiga-
tion..... RI 4236
summary..... CAL
iron-ore deposits, investigations, summary..... CAL
Johnson property, oxide manganese ore, con-
centration tests..... RI 4849
Kaiser Steel Corp., basic open-hearth furnace
practice, electrolytic manganese, tests,
results..... RI 4861

California, Kaiser Steel Corp., Mountain iron-
ore mine, open-pit mining methods and
operations..... IC 7785
Kennedy mine, gold tailings, treatment
methods..... RI 4758
slime tailings, re-treatment..... TP 481
Kettleman North Dome field, oil, secondary
recovery, by gas injection..... RI 4896
Ladd manganese mine, investigation..... RI 4580
Lake County, asbestos, deposit..... IC 7860
lamp oils, in petroleum, proportions..... B 19; TP 74
Lancha Plana Gold Dredging Co., dredging
methods and costs..... IC 6659
Lava Cap Gold Mining Corp., mining methods
and costs..... TP 619; IC 7164
safety practice..... TP 619
lead, production, summary..... EP 8
resources..... MS 8
Lee Yim claims, oxide manganese ore, concen-
tration tests..... RI 4846
lignite, analyses..... B 14, 22, 58, 193, 482; IC 7691
briquetting tests..... B 14, 58
extraction yields..... B 482
petrographic composition..... B 482
steaming tests..... B 23
lignite mines, production by thickness of seams
mined, 1950..... IC 7642
limestone deposits, history..... B 424
lithium minerals, occurrence..... IC 6214
Little Castle Creek chromite deposit, investiga-
tion..... RI 4516
lode-gold mines, history..... B 424
Lookout mine, gold ore, tests..... RI 3765
Los Angeles, smoke-abatement ordinance..... B 49
Los Angeles Basin fields, oil, secondary re-
covery, by gas and water injection..... RI 4887
Los Angeles County, dusts, metallurgical and
mineral, control..... IC 7627
fumes, metallurgical and mineral, control..... IC 7627
lubricants, in petroleum, proportions..... B 19; TP 74
lubricating oils, engine-service tests..... TP 387
magnesite, deposits..... IC 6487
magnetite ores, concentrates from..... RI 3790
magnesium minerals, as source of magnesium
metal..... IC 7216
Mammoth smelter, dust recovery..... B 84
manganese ores, amenability to sulfur dioxide
leaching, tests..... RI 4077
beneficiation tests..... RI 4117
marble deposits, history..... B 424
Mariposa County, mines, survey..... B 424
Maryland mine, oxide and silicate manganese
ore, concentration tests..... RI 4849
McCormick Chromite mine, investigation..... RI 4578
McGuffy Creek chromite deposit, investiga-
tion..... RI 4576
McWhinney oxide manganese ore, concentra-
tion tests..... RI 4599
mercury, deposits..... IC 6966
exploration..... IC 7299
mercury ores, recovery..... B 222
metals, production, annual data..... MR 1924-51;
MY 1932-51, 1952 (vol. III); MYA 1932-35
summary..... EP 8
metal mines, electric shot firing, regula-
tions..... RI 2405
mechanical shoveling..... B 423
metal-mine accidents, annual data..... B 248,
264, 282, 292, 310, 320, 342, 362, 374, 377, 396,
410, 422, 428, 435, 440, 450, 457, 461; TP 40,
61, 94, 129, 168, 202, 224, 252, 286, 299, 331,
354; IC 6811.
costs..... IC 6861
explosives..... IC 6725
prevention, program..... IC 6909
reporting, laws..... TP 61, 129, 168

Note.—Do not order from index; refer to text to see whether publication is still in stock.

California, metal-mine fatalities, annual data. B 248, 264, 282, 292, 310, 320, 342, 362, 374, 377, 398, 410, 422, 428, 435, 440, 450, 457, 461; TP 40, 61, 94, 129, 168, 202, 224, 252, 286, 299, 331, 354; IC 6811, 7915.

metal-mine injuries, annual data. IC 7798, 7915

metal-mine inspection laws. B 75

metallurgical accidents, annual data. TP 124, 164, 201, 215, 256, 280, 297, 327, 350, 374, 395, 412, 430, 458, 474, 508, 530, 532, 557.

Miller mine, chromite gravity tailings, tests. RI 5172

Minarets iron deposit, investigation. RI 3985

summary. CAL

mines, blasthole diamond drilling, results. IC 7451

ventilation. B 359

wash and change houses, laws and regulations. IC 7423

mine cages, safety catches, laws and regulations. IC 7436

mine rescue stations. MC 39

mine telephones, laws. IC 2258

minerals, high alumina, resources. RI 5183

production, annual data. MR 1924-31; MY 1932-51, 1952 (vols. I, III)-1958 (vols. I, III); MYA 1932-35.

mineral industry, annual review. MY 1952 (vol. III)-1958 (vol. III)

mineral pigments, resources. B 370

mining operations, permissible cap lamps. B 359

mining statutes. B 161

Mococo, reduction of pyrite cinder with natural gas. B 306

Mohawk lead-zinc mine, investigation. RI 4478

Mojave district Golden Queen mine, survey. IC 6931

molybdenum, deposits. B 111; EP 15

Mono County, scheelite ore, tests. RI 4867

Mother lode, gold ore, milling methods and costs. IC 6476

history. B 413, 424

hookworm infection. B 139

mining methods and costs. IC 6311, 6512

slime tailings, re-treatment. TP 481; RI 2993

Mother Lode region, mines, survey. B 413, 424

Mount Hough mine, manganese ore, concentration tests. RI 5163

Mountain Copper Co., mine water, precipitation of copper from. RI 3746

Mountain Pass, bastnaesite ores, concentration tests. RI 4919

Napa County, asbestos, deposit. IC 7860

Naphtha, in petroleum, productions. B 19; TP 74

National Resources oxide manganese ore, concentration tests. RI 4599

natural gas, analyses. B 19, 88, 486, 576

cracking, mixed with oil gas. TP 483

flow through pipelines, test data. M 6

heating value. B 19

statistics, 1936-50. IC 7644

natural-gasoline industry. B 88, 151

Naval Petroleum Reserve No. 1, petroleum-engineering studies. IC 7505, 7506

reservoir oils, studies. RI 4054

Nevada County, asbestos, deposits. IC 7860

New Almaden mercury mine, investigation. RI 4697

New Idria furnace, for mercury ores, description. B 222

New Idria mercury deposit, investigation. RI 4525

New Idria Mining and Chemical Co., tungsten ore, milling practices. IC 7912

New Idria quicksilver mine, mining methods and costs. B 356; IC 6462

New London chromite mine, investigation. RI 4783

California, Newhall-Potrero field, oil, secondary recovery, by gas injection. RI 4887

Newton copper mine, investigation. RI 4760

nonmetal-mine accidents, annual data. B 248, 264, 282, 292, 310, 320, 342, 362, 374, 377, 398, 410, 422, 428, 435, 440, 450, 457, 461; TP 94, 129, 224, 252, 299, 331, 354.

nonmetal-mine fatalities, annual data. B 248, 264, 282, 292, 310, 320, 342, 362, 374, 377, 398, 410, 422, 428, 435, 440, 450, 457, 461; TP 94, 129, 224, 252, 299, 331, 354; IC 7798, 7915

nonmetal-mine injuries, annual data. IC 7798, 7915

North Belridge field, oil, secondary recovery, by gas injection. RI 4886

North Coles Levee field, oil, secondary recovery, by gas injection. RI 4886

North Keystone copper mine, investigation. RI 4760

Oat Hill mercury mine, investigation. RI 4542

occupational diseases, compensatory provisions. IC 7650

Oceanic quicksilver mine, mining and reduction methods and costs. IC 6950

oil, recovery, methods. TP 70

secondary recovery, studies. RI 4654; IC 7358, 7616, 7643, 7659

oil fields, accidents. TP 382; RI 2557

fatalities. RI 2611, 2861, 2956, 3041, 3156, 3182, 3208

production, future. B 177

production-decline curves. B 228

water, composition. B 233

problems. B 163, 195

oil pipelines, mileage, table. IC 7585

oil sands, injected gas, migration through. RI 3177

oil shale, deposits. B 210

solubility in petroleum solvents. RI 2313

ore-testing laboratories, list. IC 7695

oil wells, cleaning, tools and methods. RI 3706

excluding water, by cementing. TP 32

gas lift. B 323

laws. B 161, 163, 206

production, methods. TP 70

pumping machinery. B 224

waste, prevention. TP 42

oil-well drilling, early methods. IC 7171

ores, electrolytic manganese production. RI 4163

sulfide, ore-dressing studies. RI 3425

ore dressing, practice. RI 2669R

oxide manganese ores, concentration tests. RI 4137

Pacific Coast Aggregates, Inc., Plant C, mining methods and costs. IC 6705

Pacific Coast manganese properties, oxide manganese ores, concentration tests. RI 4441

Panamint Tungsten Mines Co., scheelite ore, treatment tests, results. RI 5087

peat-bog fires, origin and control. IC 7411

Penn mine, copper-zinc ore, tests. RI 4224

water samples, tests. RI 4224

Pennsylvania anthracite, shipments. SFA 1-V, 2-IV

perlite, composition. RI 5199

petroleum, analyses. B 19, 291; TP 74, 346, 554, 722; RI 2202, 2235, 2595, 2608, 2846, 2893, 3074.

distillation. B 162

heating value. FOH

lubricating oils from, service tests. TP 387

pour point. RI 2290

properties. B 19, 291; TP 74, 554; RI 2202, 2235, 2595, 2608, 2846, 2893, 3074.

topping plants. B 162

viscosity. RI 2290

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

California, petroleum industry, accidents, data----- TP 382; RI 2557
 fatalities, data----- RI 2814,
 2881, 2956, 3041, 3156, 3182, 3208
 petroleum laws----- B 161, 163, 206
 petroleum products, surveys----- RI 2342, 2482, 2511
 petroleum-refinery statistics, annual data----- B 280,
 289, 297, 318, 339, 367; MR 1931; MY 1932-
 46; MYA 1932-35.
 Pine Creek tungsten mine, diamond-drilling
 blastholes, description----- IC 7451
 Pioneer-Lilyama mine, gold-copper ore,
 tests----- RI 4790
 Placer County, asbestos, deposits----- IC 7860
 Placer Development, Ltd., dredging methods
 and costs----- IC 6880
 placer mines, history----- B 424
 placer mining, districts----- TP 591; IC 6811; WPA 2
 draglines and power shovels----- IC 7013
 study----- WPA 14
 Proctor property, oxide manganese ore, con-
 centration tests----- RI 4846
 pyrite, deposits----- IC 7898
 quarry accidents, annual data----- B 246,
 263, 286, 288, 314, 325, 338, 366, 375, 376, 386,
 399, 408, 416, 426, 432, 438, 447, 452, 458; TP
 46, 73, 92, 128, 165, 193, 213, 245, 275, 295, 329,
 353; IC 6811.
 quarry fatalities, annual data----- B 554, 566; IC 7927
 quarry injuries, annual data----- B 554,
 566; IC 7842, 7927
 quicksilver, recovery, from low-grade ore----- IC 6429
 quicksilver ore, mining methods----- B 335
 roasting----- B 222
 smelting, losses----- TP 96
 Quien Sabe antimony mine, investigation----- RI 5192
 Red Hill custom mill, tungsten ore, milling
 practices----- IC 7912
 reduction mills, data----- IC 6023
 refractories, annual consumption----- RI 5183
 Reynolds property, oxide manganese ore, con-
 centration tests----- RI 4849
 rhodochrosite, beneficiation----- RI 3484
 Richfield field oil, secondary recovery, by
 water injection----- RI 4887
 Rio Bravo field, oil, secondary recovery, by gas
 injection----- RI 4886
 Round Valley Tungsten Co., tungsten ore, mill-
 ing practices----- IC 7912
 Royer & Sampson scheelite tailings, treatment
 tests, results----- RI 5087
 Rush Creek lead-zinc deposit, investigation----- RI 4453
 safety orders----- MC 39
 Sagamore mine, scheelite-base-metal ore, treat-
 ment tests, results----- RI 5087
 salt industry, review----- B 146
 San Bernardino County, scheelite tailings,
 tests----- RI 4867
 San Francisco, Bureau of Mines field office,
 work----- B 175;
 DAR 1919-21, 1923-36; IC 6060
 San Joaquin mine, scheelite ore, treatment
 tests, results----- RI 5087
 San Joaquin Valley, fields, oil, secondary re-
 covery, by gas and water injection----- RI 4886
 petroleum, properties----- B 19
 San Miguelito field, oil, secondary recovery, by
 gas injection----- RI 4887
 Searles Lake, brines, as source of potash----- RI 2020
 Selad Creek chromite deposits, investiga-
 tion----- RI 4619
 Selad Creek mine, chromite ore, concentration
 tests----- RI 5172
 Selby smelter, dust recovery----- B 84

California, Selby Smelter Commission, report----- B 98
 Shasta County, asbestos, deposits----- IC 7860
 Shasta iron-ore deposits, investigations----- RI 4272
 summary----- CAL
 short-firing regulations----- B 240
 Sierra County, asbestos prospects----- IC 7860
 Sierra mine, copper ore, concentration test----- RI 4927
 silver, production, summary----- EP 3
 silver mines, history----- B 424
 silver ore, custom plants----- IC 6842
 Siskiyou County, asbestos, deposits----- IC 7860
 smelter smoke----- B 84, 98, 133
 sources of steel, projects----- RI 3801
 South Coles Levee oil field, core analyses----- RI 4716
 method----- RI 4716
 coring, drilling fluids used, properties----- RI 4716
 oil, secondary recovery, by gas injection----- RI 4886
 Southwestern Portland Cement Co., bonus,
 effect on accident record----- IC 6176
 State regulations, hoisting men----- IC 7057
 internal-combustion engines, under-
 ground----- IC 7019, 7789
 Stevens sand formation, pressure buildup in
 oil wells, study----- RI 5833
 Strawberry tungsten deposit, investigation----- RI 4543
 subbituminous coal, analyses----- B 22, 193
 sulfur, deposits----- IC 7898
 production----- IC 7898
 history----- IC 7898
 Sulphur Bank Syndicate, quicksilver ore, mill-
 ing methods and costs----- IC 6429
 Sunset mine, manganese ore, concentration
 tests----- RI 5163
 Surcease Mining Co., tungsten ore, milling
 practices----- IC 7912
 Sweetwater chromite mine, investigation----- RI 4783
 talc, mining----- B 213
 tests in insulators----- RI 3804
 talc block, analyses----- RI 5220
 reconstituted, using magnesium oxychloride
 binder, properties----- RI 5220
 talc industry, discussion----- B 213; RI 2253
 talc ores, beneficiation----- RI 3494
 Tejon-Grapevine area, petroleum-reservoir
 rocks, clays in, identification----- RI 5425
 permeability, effect of water sensitivity of
 clays on----- RI 5425
 Tesla mining district, Black Wonder man-
 ganese deposits, investigation----- RI 5254
 Thomas mine, oxide and silicate manganese
 ore, concentration tests----- RI 4849
 tin, survey----- RI 3876
 titanium ores, deposits----- IC 6886
 Trans-Oceanic property, oxide manganese ore,
 concentration tests----- RI 4846
 Trinidad chromite mine, investigation----- RI 4783
 Trinity County, asbestos, deposits----- IC 7860
 Troeger and Eckloff oxide manganese ores,
 concentration tests----- RI 4590
 Trumble plants, for topping petroleum----- B 162
 Tulare County Tungsten Mines property, ex-
 ploration----- RI 5217
 Tulare County Tungsten Mining Co., tungsten
 ore, milling practices----- IC 7912
 tungsten ore, investigation----- RI 4475
 milling methods and costs----- IC 6532
 tunnels, blasting----- B 267
 ventilation----- B 359
 Tuolumne County, asbestos, deposits----- IC 7860
 mines, survey----- B 424
 Turtle claims, oxide manganese ore, concen-
 tration tests----- RI 4441
 Tyson mine, chrome ore, refractory properties,
 investigation----- RI 4929
 Union Carbide Nuclear Co., tungsten ore, mill-
 ing practices----- IC 7912

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- California, U.S. Tungsten Co. mine, scheelite ore, treatment tests, results..... RI 5087
- Vallecito Mining Co., drift-mining methods and costs..... IC 6612
- Vallecitos area, bentonitic clay, use in oil-well drilling muds, evaluation..... RI 5487
- Valpine mine, scheelite ore, treatment tests, results..... RI 5087
- vanadium, deposits..... B 70
- Victory mine, scheelite ore, tests..... RI 4867
- Vulcan iron mine, mining methods..... IC 7437
- Walker Mining Co., milling methods and costs..... IC 6555
- Warnken-Miller mine, scheelite ore, treatment tests, results..... RI 5087
- Wawona vehicular tunnel, construction and ventilation, safety factors..... TP 608
- Weisel, P. J., Inc., glass-sand plant, mining and milling methods and costs..... IC 6937
- West Belt copper-zinc mines, investigation..... RI 4760
- West Coyote field, oil, secondary recovery, by gas injection..... RI 4887
- Wilmington field, oil, secondary recovery, by gas injection..... RI 5338
- by water injection..... RI 5413
- Yellow Aster gold mine, mining and milling methods and costs..... IC 6900, 7096
- Yosemite National Park, tunnel, construction and ventilation, safety factors..... TP 608
- zinc, deposits..... MS 11
- production, summary..... EP 3
- California formula, for gas flow..... M 6
- California Industrial Accident Commission, mine fire order..... TP 363
- safety regulations, oil wells..... B 224
- California iron-ore deposits, Calif., investigation..... RI 4272
- summary..... CAL
- California State Mining Bureau, petroleum investigations, early..... IC 7171
- Caliper, well-bore, description..... RI 5092
- operation..... RI 5092
- Callow belt screen, for coal and ore..... B 234
- Calorific value, bituminous coal, effect of storage on..... RI 5386
- coal, determination..... TP 8R
- Calorimeter, bomb, Bureau of Mines type, features..... TP 91
- standardization..... B 22, 41; TP 8R, 91
- use..... B 22; TP 76
- explosives..... B 15, 48, 66
- liquid fuels..... B 43
- steam..... B 23
- tests..... TP 91
- Calumet and Arizona Mining Co., Campbell mine, Ariz., mining methods and costs..... B 356, 357, 390; IC 6289
- Eighty-Five mine, N. Mex., mining methods and costs..... B 356, 357, 390; IC 6413
- New Cornelia mines, Ariz., leaching methods and costs..... IC 6303
- Calumet & Hecla Consolidated Copper Co., Mich., Conglomerate mill, milling methods and costs..... IC 6364
- Conglomerate mine, mining methods and costs..... B 390; IC 6526
- Calumet & Hecla mines, Mich., safety posters..... IC 6827
- Calumet & Hecla Mining Co., Mich., leaching practice..... IC 6357
- Calyx No. 3 uranium mine, Temple Mountain mining district, Utah, mining methods and costs..... IC 7811
- Calyx No. 8 uranium mine, Temple Mountain mining district, Utah, mining methods and costs..... IC 7811
- Camak quarry, Weston-Brooker Co., Ga., crushed granite, production, methods and practices..... IC 7874
- Cambria County, Pa., coal, carbonizing properties..... RI 5524
- preparation characteristics..... RI 4747
- study..... IC 7647
- coking coal, reserves..... RI 4734
- study..... IC 7647
- Cambria-Jackson iron mine, Cleveland-Cliffs Iron Co., Mich., tungsten carbide insert bits, use..... IC 7558
- Cambria Smokeless mine, Pa., coal, washing characteristics..... RI 4894
- Camel-Gypsum prospect, Chichagof Island, Alaska, diamond drilling..... RI 4852
- Camera lucida, in microscopy, use..... TP 211
- Cameroun, mining laws, synopsis..... IC 6716
- Camps, mining..... B 87; MC 24, 26
- oil, sanitation..... TP 261
- oil shale, sanitation..... TP 324
- Camp, L. W., Co., shale pit, Ohio, grinding methods and costs..... IC 6887
- Camp Bird lead-zinc deposits, Colo., investigation..... RI 4230
- Camp Bird mine, King Lease, Inc., Colo., mining and milling methods..... IC 7554
- Camp No. 1 mine, Tenn., coal, washing characteristics..... RI 5136
- Campbell County, Tenn., coal, analyses..... RI 5258
- carbonizing properties..... RI 5258
- preparation characteristics..... RI 5258
- coking coal, reserves, estimate..... RI 5258
- Campbell Creek No. 2 Gas bed, W. Va., coking coal, reserves, estimate..... RI 4893
- Campbell Creek-Peerless bed, W. Va., coking coal, reserves, estimate..... RI 4893
- Campbell Limestone Co., Liberty quarry, S.C., crushed granite, production, methods and practices..... IC 7857
- Campbell mine, Calumet and Arizona Mining Co., Ariz., mining methods and costs..... B 356, 357, 390; IC 6289
- Canada, Alberta, Pennsylvania anthracite, shipments..... SFA 1-VI, 2-V
- antimony, deposits..... MS 1
- arsenic industry..... EP 17
- asbestos, deposits..... MS 2
- beryllium, resources..... MS 4
- barite industry, review..... IC 6221
- bentonite, deposits..... TP 609
- bituminous sandstone, extraction of asphalt from, study..... RI 4523
- British Columbia, A bed, coal, carbonizing properties..... B 510
- Aldridge Creek prospect, coal, carbonizing properties..... B 510
- B bed, coal, carbonizing properties..... B 510
- properties..... M 5
- Britannia Mining & Smelting Co., Ltd., milling methods and costs..... IC 6619
- mining methods and costs..... B 356; IC 6815
- pay-roll methods..... IC 6622
- coal, carbonization assays, low-temperature..... B 571
- delivered, analyses..... B 230
- friability..... RI 3215
- resins, investigations..... TP 680
- washing tests..... B 300
- coal-mine accidents, data..... B 69
- coal miners, output..... RI 2145
- cobalt industry..... IC 6931
- copper, production, summarized data..... EP 1
- copper mining, discussion..... B 405
- electric shot-firing regulations..... B 240

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Canada, British Columbia, electric smelting, iron and steel..... B 67
zinc..... B 77
Elk River No. 1 mine, coal, carbonizing properties..... B 510
Elk River No. 3 mine, coal, carbonizing properties..... B 510
Elk River No. 4 mine, coal, carbonizing properties..... B 510
Elk River No. 9 mine, coal, carbonizing properties..... B 510
Falconbridge nickel ore, treatment..... RI 3483
fluorspar deposits..... B 244
garnet, deposits..... B 266
geophysical prospecting, patents..... IC 6883
Granby Consolidated Mining, Smelting & Power Co., Ltd., ores, statistical microscopic study..... RI 3290
Kootenay Air Supply Co., Taylor hydraulic air compressor, installation, review... IC 7683
Michel mine, coal, analyses..... TP 543
carbonizing properties... B 510; TP 543; M 5
No. 2 bed, coal, carbonizing properties... B 510
No. 3 bed, coal, carbonizing properties... B 510
No. 4 bed, coal, blending with Lower Sunnyside bed, Utah, coal, carbonizing properties... B 510
carbonizing properties... B 510
No. 5 bed, coal, carbonizing properties... B 510
No. 8 mine, coal, carbonizing properties... B 510
No. 9 bed, coal, blending with Lower Sunnyside bed, Utah, coal, carbonizing properties... B 510
carbonizing properties... B 510
No. 10 bed, coal, blending with Lower Sunnyside bed, Utah, coal, carbonizing properties... B 510
carbonizing properties... B 510
Pennsylvania anthracite, shipments... SFA 1-VI, 2-V
Premier Gold Mining Co., Ltd., milling methods and costs... B 363; IC 6742
Robertson mine, coal, carbonizing properties... B 510
Trall, lead blast furnace, smelting studies... RI 3243-3246, 3264
sulfur dioxide recovery... RI 3415
T'Sable River mine, coal, carbonizing properties... B 510
coal, analyses... B 512
cobalt, deposits... MS 5
copper, reserves... MS 6
crude oil, analyses... RI 4657
bibliographies... RI 4657; IC 7470, 7921
properties... TP 346
Fischer-Tropsch synthesis and related processes, patents... B 544
gold, deposits, mining methods and costs... B 356, 357, 363, 390
production, summarized data... EP 6
gypsum, producers... IC 6162
gypsum industry, status... IC 6162
lead, production, summarized data... EP 5
resources... MS 8
manganese, deposits... MS 9
Manitoba, Flin Flon mine, sulfide ore, treatment... TP 499
Pennsylvania anthracite, shipments... SFA 1-VI, 2-V, 3-V
Meteorological Service, investigation near Trail smelter... B 453
mica, reserves... IC 6044
minerals, production, annual data... MR 1924-31; MY 1932-46, 1949-51; MYA 1932-35
mineral industry, economic study... McG-H
mining laws... IC 6348; MTN 32
molybdenum, deposits... EP 15
natural gas, analyses... B 576

Canada, New Brunswick, Pennsylvania anthracite, shipments... SFA 1-VI, 2-V, 3-V
nickel, deposits... MS 10
nickel ore, deposits... RI 5099
Nova Scotia, Pennsylvania anthracite, shipments... SFA 1-VI, 2-V, 3-V
oil shales, deposits... B 210; RI 5504
Ontario, Central Patricia Mines, Ltd., development methods and costs... IC 6681
Cobalt Hydraulic Power Co., Taylor hydraulic air compressor, installation, review... IC 7688
Coniaurum Mines, Ltd., milling methods and costs... B 363; IC 6541
Falconbridge district, geophysical prospecting, tests... IC 6235
Falconbridge nickel ore, mining methods... RI 3493
Frood mine, rock bursts, seismic investigations... RI 3654
gold, saving, with corduroy... IC 7065
Kirkland Lake Gold Mines, Ltd., milling methods and costs... B 363; IC 6506
mining methods and costs... B 363, 390; IC 6490
Lake Shore gold mine, rock, physical and petrographic properties... RI 4459
rock bursts, seismic investigations... RI 3654
Macassa Mines, Ltd., shaft-sinking methods and costs... IC 6674
Matachewan gold district, Ashley mine, development methods and costs... IC 6707
McIntyre Porcupine Mines, Ltd., mining methods and costs... B 357, 363, 390; IC 6741
Pennsylvania anthracite, shipments... SFA 1-VI, 2-V, 3-V
Porcupine United Gold Mines, Ltd., milling methods and costs... B 363; IC 6433
Rochester mine, mining methods and costs... IC 6470
Sudbury district, nickel-ore deposits, geophysical prospecting... TP 510
talc, mining... B 213
talc industry, data... RI 2162
Taylor Hydraulic Air Compressing Co., Ltd., hydraulic air compressor, installation, review... IC 7688
Teck-Hughes Gold Mining Co., mining methods and costs... B 356, 357, 363, 390; IC 6322
Trent Canal Lift Lock No. 1, Taylor hydraulic air compressor, installation, review... IC 7688
Vipond Consolidated Mines, Ltd., mining methods and costs... B 356, 363, 390; IC 6525
ore-testing laboratories, list... IC 7095
patents, oil shale... B 574 (pt. 2)
pressure hydrogenation, carbonaceous materials, liquid, index... B 485 (pt. 3)
solid, index... B 485 (pt. 3)
shale oil... B 467, 574 (pt. 2)
peat, investigations... B 253
Pennsylvania anthracite, shipments... SFA 1-VI, 2-V, 3-V
petroleum, analyses... TP 346
laws... B 203
platinum, deposits... IC 6389
potash, investigations... MR 1930
Prince Edward Island, Pennsylvania anthracite, shipments... SFA 1-VI, 2-V, 3-V
Quebec, Abana mine, geophysical prospecting... TP 501
chalcopyrite, grinding characteristics... RI 3704
Dominion Cotton Mills Co., Ltd., Taylor hydraulic air compressor, installation, review... IC 7683

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Canada, Quebec, Granada Gold Mines, Ltd., mining methods and costs.....	B 390; IC 6709
iron ore, future source for United States..	MTN 29
Pennsylvania anthracite, shipments....	SFA 1-VI, 2-V, 3-V
radium industry.....	IC 6312
reciprocal trade agreement.....	MY 1936
Saskatchewan, lignite, thermal treatment....	RI 5382
Pennsylvania anthracite, shipments....	SFA I-VI, 3-V
selenium, production.....	IC 7690
shot-firing regulations.....	B 240
silver, production.....	EP 10
summarized data.....	EP 8
strontium industry, review.....	EP 4
titanium ores, deposits.....	IC 6386
Trall smelter, operation, study.....	B 453
Williston Basin, oil development, summary..	RI 5055
zinc, production, summarized data.....	EP 2
resources.....	MS 11
Canal field, Calif., oil, secondary recovery, by gas injection.....	RI 4886
Canal Zone, geology, relation to engineering....	B 86
minerals, production, annual data.....	MY 1949-51, 1952 (vols. I, III)-1958 (vols. I, III)
mineral industry, annual review.....	MY 1952 (vol. III)-1958 (vol. III)
topography, study.....	B 86
Canam Metals Corp., White Bird concentrator, Okla., milling methods and costs.....	B 381; IC 6353
Cananea Consolidated Copper Co., Sonora, Mexico, milling methods and costs....	IC 6261
mining methods and costs.....	B 356, 357, 390; IC 6247
Canaries, effects of carbon monoxide.....	B 42, 44, 62; TP 11, 62; MC 14, 33R; RI 3040; RREH
effects of low-oxygen atmospheres..	TP 122; RI 3040
effects of natural gas.....	TP 109
for detecting carbon monoxide, use.....	B 42, 44, 62; TP 11, 62, 122; MC 14, 33R; RI 3040; RREH
Canary Islands, salt, production, annual data.....	MY 1949-51
Candelaria district, Nev., manganese-silver ores..	B 226
Canfield method, setting screen pipe.....	TP 247
Canister gas masks, as protection against mercury vapor.....	RI 3187
limitations.....	TP 348
uses.....	IC 7236
Cannel coal, analyses.....	B 22, 193; RI 2221
deposits, description.....	RI 2221
distillation yields, tar and light oil.....	RI 3748
gases.....	B 72
hydrogenation, literature.....	TP 642
low-temperature distillation.....	TP 123
origin.....	B 38
Cannel Coal mine, Ky., coal, washing characteristics.....	RI 5135
Canon dolomite quarry, Colorado Fuel & Iron Corp., Colo., 100-percent first-aid training program, plan and organization....	IO 7712
Cantine No. 2 mine, Ill., coal, washing characteristics.....	TP 724
Canton Island, stone, crushed, production, annual data.....	1952 (vols. I, III), 1956 (vols. I, III)
Cantwell area, Alaska, shale, clay-utilization tests, results.....	RI 4932
lightweight-aggregate tests, results....	RI 4932
Canvas wrapper, for liquid-oxygen explosives fire-retardant treatment.....	B 429
Canyon Diggings zinc-lead deposit, Mo., investigation.....	RI 4745
Canyon Reef fields, Tex., petroleum-engineering study.....	IC 7643
Caps, blasting, accidents to children from....	IC 7275
"flame," for safety lamps, testing for gas....	B 227; MC 12
Cap lamps, description.....	MC 36R
electric, light decrease, factors.....	RI 3292
permissibility, maintaining.....	IC 6832
permissible.....	B 131
field performance.....	IC 7188
lists.....	IC 6942, 7110, 7158, 7207, 7432, 7589
tests.....	S 6D
use.....	B 359; RI 2859; IC 6865
Cap-lamp batteries, for firing multiple shots, use.....	RI 3269
Capacitor-battery-type blasting unit, multiple-shot, tests, results.....	RI 4136
Capacity pick-up devices, electrical transducer circuit for.....	RI 3685
Cape Colony, mine injuries.....	B 75
Cape Mountain lode-tin deposits, Alaska, exploration.....	RI 3978
Cape Mountain tin placer deposits, Alaska, churn drilling.....	RI 4345
sampling, results.....	IC 7878
Cape Rosier zinc-copper-lead mine, Maine, investigation.....	RI 4344
Cape Verde Islands, salt, data.....	MY 1959-51
Capital zinc mine, Mo., churn drilling.....	RI 4318
Capitan field, Calif., oil, secondary recovery, by gas injection.....	RI 4887
Capitan iron deposits, N. Mex., investigation.....	RI 4022, 4514
Capitol boiler, steaming tests.....	TP 315
Capitol shaft, Leadville district, Colo., investigation.....	RI 4518
Capitol-Winchester boiler, steaming tests.....	TP 315
Cappagh brown, properties.....	IC 6504
Cars, for transporting explosives, types.....	IC 7115
haulage with, in sand and gravel excavation.....	IC 6856
mine, accidents from.....	MC 11, 22
coupling, automatic.....	IC 7245
insulated, study.....	RI 2838
dangers.....	MC 22
friction, factors.....	CIT 13, 20
resistance to flow of air by.....	RI 2647
in timbered coal-mine entries.....	RI 2671
safety devices, Mine Safety Board decision.....	IC 7002
ore, description.....	IC 6326
safety, data.....	IC 6435
Car rails, radio transmission over.....	RI 2682
Car-spotting hoists, permissible, list.....	IC 7569
Car trips, runaway, in coal mines.....	IC 6436
Carbides, condition, relation to acetylene generators, explosions.....	RI 3755
in contact with acetylene-water vapor mixtures, determining reactivity, apparatus.....	RI 4067
effect of generator pressure upon reactivity.....	RI 4067
effect of generator water temperature upon reactivity.....	RI 4067
metal, preparation and properties.....	RI 3770
storing, with explosives, danger.....	RI 2280
thermodynamic data.....	B 407
Carbide lamps, in tunnels, use.....	B 359
miners', notes.....	MC 18
Carbocite process, for treating lignite.....	B 255
Carbocoal process, for low-temperature coal carbonization.....	RI 2292
Carbon, activated, application in cyanidation of gold-silver ore, study.....	RI 4819
for gas masks.....	TP 479
from coal waste.....	RI 3548, 3599
production from coal.....	TP 479

B Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Carbon, activated, recovery of gold from, by
 electrolysis..... RI 4672
 by leaching..... RI 4672
 process..... RI 4843
 recovery of silver from, process..... RI 4843
 coal as source, in aluminum production, in-
 vestigation..... RI 5191
 electrode, low-ash coals for..... IC 7272
 entropies..... B 350, 394, 434, 476, 477
 flotation..... RI 3397
 fusion, heats..... B 393
 granular, as absorbent for liquid-oxygen ex-
 plosives..... RI 3169
 heat and free energy of vaporization equa-
 tions..... B 383
 heat content, data..... B 476
 in carbonaceous rocks..... TP 212
 in coal..... B 22, 85, 123, 193
 determination..... B 492
 in coal dusts..... B 102
 in electric furnaces..... B 77
 in explosives..... B 15
 in kaolin..... TP 212
 in open-hearth steel, determination..... B 425
 in steel, distribution, effect of manganese..... TP 466
 proportion..... B 100
 in water-gas generators, elimination..... RI 2973
 melting point..... B 77
 partition between manganese and iron, in
 gamma range..... B 407
 reduction of chromic oxide by, equilibria..... RI 3747
 reduction of zinc oxide by..... MIS 8-1
 solubility, in iron-manganese-silicon alloys..... RI 3230
 specific-heat equations..... B 371
 vapor pressure..... B 383
 Carbon abrasives, annual data..... MY 1946-49
 Carbon bisulfide, solubility of oil shale in..... RI 2313
 Carbon black, annual data..... MR 1924-31;
 MY 1932-51, 1952 (vol. II)-1958 (vol. II)
 analyses..... RI 4695
 as absorbent, for liquid-oxygen explosives..... RI 3169
 bibliography..... B 192
 electric manufacture..... B 192; TP 351
 postwar outlook..... MY 1943, 1944
 production, by decomposing acetylene-hydro-
 carbon mixtures..... RI 4695
 review..... RI 4793
 from liquid hydrocarbons..... TP 351
 from natural gas..... TP 851, 483; RI 2091, 2417
 by cracking..... TP 483; RI 2991
 by high-voltage arc..... RI 2417
 methods..... B 192
 properties..... B 192; TP 351
 electrical..... RI 4695
 uses..... B 192; TP 351
 war situation..... MY 1943
 Carbon-black industry, economic phases..... IC 6083
 NRA code..... MY 1934
 Carbon deposits, from air compressors, tests..... RI 4465
 Carbon dioxide, annual data..... MY 1938-42
 as mineral commodity, annual data..... MY 1935
 combustion data..... TP 320
 compressed, discharge spray, electric shock,
 hazards..... RI 3856
 compressibility..... TP 158
 effect on explosibility of flammable gases..... TP 43
 escape, from coal..... TP 2, 35, 65
 examination..... B 12,
 23, 27, 33, 35, 42, 97, 145, 197; TP 31, 34,
 219; FOH; MC 32.
 for extinguishing fire in coal mine..... IC 7563, 7564
 formation in coal hydrogenation..... TP 654
 free energy..... IC 6125
 in abandoned shafts, danger..... RI 2295

Carbon dioxide, in air..... TP 288
 in blasting gases..... B 287
 in coal, determination..... B 492
 occurrence..... B 1, 26; RI 3233; VE 39
 in cupola gases..... B 54
 in engine exhaust gases..... B 74; TP 216
 in flue gas..... B 12,
 23, 63, 91, 97; TP 31, 219, 238
 in mine air..... B 42,
 72, 105, 197; TP 14, 320; MC 13, 32, 34B
 in natural gas..... B 15, 19, 42
 indicators..... B 91; TP 238; MC 32; RI 2668
 liquid, use, for extinguishing coal-mine gob
 fire..... IC 6970
 in grouting..... RI 4559
 oxidation of zinc vapor by..... TP 336
 physiological effects..... B 105;
 TP 82, 248; MC 14; RI 2319, 2660
 pressure-volume deviation, at high pres-
 sures..... RI 2276
 prevention of benzene-air explosions by..... RI 3787
 production by permissible explosives, effect of
 sheaths..... RI 3705
 properties..... IC 6983
 removal from synthesis gas, method, informa-
 tion..... RI 5494
 using diethanolamine, tests..... RI 4891
 using triethanolamine, tests..... RI 4891
 thermodynamic properties..... B 384
 Carbon dioxide-air mixtures, flammability limits
 of ethane in..... RI 3172
 Carbon dioxide-benzene-air mixtures, flam-
 mability limits..... RI 4081
 Carbon dioxide-butadiene-air mixtures, flam-
 mability limits..... RI 3691
 Carbon dioxide-butadiene mixtures, flammability
 limits..... RI 3691
 Carbon dioxide content, of mine-fire atmosphere,
 as aid in fighting metal-mine fire..... IC 7590
 Carbon dioxide-ethane-air mixtures, explosi-
 bility effect of pressure..... RI 4751
 Carbon dioxide-ethane mixtures, flammability
 limits..... RI 3216
 Carbon dioxide gas, use, in pressure grouting,
 diamond-drill holes..... RI 4559
 Carbon dioxide-hydrazine, flammability limits..... RI 4460
 Carbon dioxide-nitrogen mixtures, flammability
 limits of carbon monoxide in..... RI 3172
 flammability limits of hydrogen in..... RI 3172
 flammability limits of methane in..... RI 3172
 Carbon dioxide poisoning, first-aid treatment..... FAI
 Carbon dioxide-propane-air mixtures explosi-
 bility, effect of pressure..... RI 4812
 Carbon dioxide-water-potassium carbonate-pot-
 assium bicarbonate system, equilibrium
 study..... RI 5494
 Carbon disulfide, flammability limits..... B 279B, 508
 thermodynamic properties..... B 406
 Carbon electrodes, for aluminum industry, coke
 from low-ash coals for..... RI 3731
 low-ash coke for, use..... IC 7822
 Carbon-hydrogen-oxygen-nitrogen systems, com-
 putation..... RI 4906
 Carbon monoxide, absorbents..... B 178
 absorption by hemoglobin..... TP 582
 after mine fires..... TP 13, 59
 ampoule-type detector, description..... TP 582
 blood samples, for determination of..... PHS 868
 Bureau of Mines publications, bibliography..... B 558
 catalytic reduction, hydrocarbons from, review
 of literature..... TP 709
 combustion data..... TP 320
 dangers..... RI 2304; IC 6009
 in home..... IC 7233, 7676

B Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Carbon monoxide, detection..... MC 31, 32,
33R, 34R; RI 2476, 3040
by mice and birds..... B 42,
62; TP 11, 62, 122; MC 14, 33R; RRH; RI 3040
with palladium salt solution..... RI 3030
with pyrotannic acid..... TP 373;
MC 33R, 34R; RI 2486; PHS 872
determination, by absorption, Haldane ap-
paratus..... RI 4187
by gas-volumetric methods..... B 557
by phosphomolybdic acid method..... IC 7728
by pyrotannic method..... IC 7728
explosion limits..... B 15; TP 13, 134; MC 14
exposure, physiological effects..... PHS 748
fatalities, natural-gas heaters..... TP 337, 362; RI 2572
flammability limits..... B 279R; 503; TP 134, 150
in nitrogen-carbon dioxide mixtures..... RI 3172
formation, in air compressors..... B 57
in compressed-air systems..... RI 4465
rate..... B 7
free energy..... IC 6125
from automobile exhaust gases, dangers..... TP 216;
RI 2908
from explosives..... B 10, 57
from gas heaters, dangers..... TP 337,
362; RI 2572; IC 6009
from gasoline mine locomotives..... B 74
from motors using ethyl gasoline..... RI 2908
from natural-gas heaters, deaths caused by..... TP 337
from oxidation of coal..... TP 65
Hoolamite detector, description..... B 557;
TP 582; MC 33R, 34R
hydrogenation, catalytic, products..... RI 4467
liquefaction of coal by, research and devel-
opment..... IC 7565, 7618
synthetic liquid fuels by..... B 578; TP 709
Fischer-Tropsch synthesis, bibliography..... B 544
patents, foreign..... B 544 (pt. 2)
index..... B 544 (pt. 2)
United States..... B 544 (pt. 2)
review of literature..... B 544 (pt. 1)
index..... B 544 (pt. 1)
in air, detection..... TP 355; MC 32, 33R, 34R; RI 2207
determination, by infrared gas analyzers..... B 557
by iodine pentoxide method..... B 557
by pyrotannic acid method..... B 557; MC 33R
of Holland tunnel, study..... RI 3585
in blast-furnace gas, dangers..... TP 106
in blood, determination..... B 42; TP 373;
MC 33R; RI 2356, 2586; PHS 863, 872
by pyrotannic acid method..... B 557;
TP 373; MC 33R; RI 2356; PHS 872
in cupola gases, determination..... B 54
in flue gases, determination..... B 23, 27, 39, 97
in gas producers..... B 7
in hydrogen, determination..... TP 582
in metal mines, formation..... B 347; IC 6073
in mines, determination..... B 42, 197;
TP 11, 14; MC 14, 31, 32, 33R, 34R; IC 6057
in street manholes, tests..... RI 2710, 3109,
3192, 3260, 3305, 3321, 3337, 3343; IC 6009
in tobacco smoke, hazards..... RI 2539
infection point, definition..... RI 3398
iodine pentoxide detector, description..... B 557;
TP 582; MC 33R; IC 6057
iron oxide materials in, relative reducibility,
tests..... RI 4569
literature on..... PHS 150
low concentrations, colorimetric determina-
tion..... RI 3785
exposure, effects..... RI 2338
oxidation, by bacteria..... RI 3466
- Carbon monoxide, physiological effects..... B 42
62; TP 11, 62, 122, 362; MC 14, 32, 33R-36R;
RRH; RI 2338, 2593, 2660, 3040; IC 7238,
7676; PHS 748.
production, by permissible explosives, effect of
sheaths..... RI 3705, 4220
in combustion with butane fuel..... IC 7284
properties..... B 72;
TP 11, 13, 134, 248, 337; MC 14, 32, 34R;
IC 6983, 7238, 7676.
reaction with noble metals..... TP 582
reduction of cuprous oxide with..... RI 2926
reduction of iron ores by, bibliography..... B 519
thermodynamic data..... RI 4888
thermodynamic properties..... B 384
Carbon monoxide-acetylene mixtures, flam-
mability limits..... B 279R, 503
Carbon monoxide alarm, description..... B 557; TP 582
tests..... TP 355
Carbon monoxide and hydrogen, addition to un-
saturated carbon compounds to form
corresponding aldehydes, chemistry, re-
view..... RI 4270
hydrocarbons from, synthesis, mechanism..... IC 7821
Carbon monoxide asphyxia, studies..... TP 106;
PHS 1488
Carbon monoxide bacteria, growth, effect of
hydrogen-ion concentration..... IC 7133
Carbon monoxide detectors, animals as..... B 42,
62; TP 11, 62; MC 14, 33R, 55R; RI 3040
canaries as..... B 42,
44, 62; TP 11, 62, 122; MC 14, 33R, 55R; RI
3040; RRH.
colorimetric, description..... MC 33R
description..... B 557; TP 582
pyrotannic acid..... MC 33R
tests, in mines..... RI 2207
use, by coal-mine officials..... IC 7037
types..... MC 55R
Carbon monoxide-ethylene mixtures, in air, flam-
mability limits..... B 279R, 503
Carbon monoxide gas masks, approved by Bu-
reau of Mines, lists..... IC 6918, 7885
Carbon monoxide-hydrogen-ethylene mixtures,
flammability limits..... B 279R
Carbon monoxide-hydrogen-methane mixtures,
flammability limits..... B 279R
Carbon monoxide-hydrogen mixtures, flam-
mability limits..... B 279R, 503
Carbon monoxide indicator, colorimetric, Na-
tional Bureau of Standards, descrip-
tion..... B 557
M.S.A., description..... MC 33R
portable, description..... B 557
Carbon monoxide-methane mixtures, in air, flam-
mability limits..... B 279R, 503
Carbon monoxide poisoning, dangers..... RI 2476;
IC 6196
in garages, compound to reduce, tests..... RI 2594
in homes..... RI 2593
in industries..... RI 2593
in steel industry, sources..... TP 156
review..... PHS 195
study..... RI 2319
symptoms..... TP 77,
106, 157, 216; MC 13, 33R; FAH; FAI; RI
2304, 2476, 2593; PHS 195, 728.
treatment..... TP 77;
FAH; FAI; RI 2304, 2476, 2593, 2660; IC
7238, 7676; PHS 728.
Carbon monoxide recorder, description..... B 557;
TP 355, 582; MC 33R
tests..... TP 355; RI 2207
Carbon monoxide self-rescuer, description..... MC 30,
35R; RI 2591

E Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Carbon Mountain mine, Ala., graphite deposit, description..... RI 4366
- Carbon oxides, heat and free-energy-of-formation values, tabulation..... B 542
- Carbon-oxygen complex, possible initiator of explosions..... RI 4465
- Carbon oxysulfide, flammability limits.... B 279R, 503
- Carbon particles, in smoke, effect on health.... RI 2781
- Carbon-steam reaction, in powdered-coal gasifier, kinetic study..... RI 5236
- Carbon steels, chemical analyses..... RI 4975
- comparison with manganese steel, for drill rods..... RI 3566
- inclusions, determination, electrolytic method..... RI 3205
- made with sponge iron, properties, study.... RI 4975
- Carbon tetrachloride, as fire extinguisher, for electric fires..... RI 2499
- gases produced..... RI 2262, 2499
- on burning magnesium..... RI 3686
- tests..... RI 2335
- solubility of oil shale in..... RI 2313
- Carbon tetrachloride-hydrocarbon mixtures, hazards..... IC 6805
- Carbon-zirconium alloys, study..... RI 4658
- Carbonaceous absorbent, in liquid-oxygen explosives, fire-retardant treatment..... B 429
- Carbonaceous materials, liquid, pressure hydrogenation, bibliography..... B 485
- patents, foreign..... B 485 (pt. 2)
- index..... B 485 (pt. 3)
- United States..... B 485 (pt. 2)
- index..... B 485 (pt. 3)
- review of literature..... B 485 (pt. 1)
- index..... B 485 (pt. 3)
- solid, pressure hydrogenation, bibliography... B 485
- patents, foreign..... B 485 (pt. 2)
- index..... B 485 (pt. 3)
- United States..... B 485 (pt. 2)
- index..... B 485 (pt. 3)
- review of literature..... B 485 (pt. 1)
- index..... B 485 (pt. 3)
- Carbonates, metal, correlations..... B 384
- Carbonate district, Mont., mineral deposits, investigation..... IC 7589
- Carbonate ion, thermodynamic properties..... B 384
- Carbonate King zinc mine, Calif., investigation..... RI 4522
- Carbonate-leaching and lime-clinkering process, recovering manganese from open-hearth steel-plant slags by, investigation.... RI 5124
- pilot-plant tests..... RI 5142
- Carbonate ores, analyses..... TP 143
- concentrability..... B 39
- microscopic structure..... B 391
- treatment..... B 81, 157
- Carbonate rocks, combustible matter, determination..... TP 212
- Carbondale colliery, Pa., deep-well pumps, performance records..... RI 4656
- Carbonglo No. 4 mine, Ky., coal, washing characteristics..... RI 4993
- Carbonic acid, thermodynamic properties..... B 384
- Carbonization, coal, BM-AGA and slot-oven methods, comparison..... B 480
- BM-AGA test data, correlation with industrial coking operations data.... RI 5467
- duplicability..... RI 5467
- effect of blending..... RI 5110
- effect of charge density..... RI 5110
- effect of temperature..... RI 5110
- in gas retorts..... IIG 20
- mechanism and kinetics, studies..... IC 7794
- pretreatment, effects, study..... IC 7904
- coal expansion during, studies..... IC 7756, 7794
- Carbonization, low-temperature, coal..... TP 396;
RI 2292, 5123; CIT 8
- investigation..... B 496
- studies..... IC 7352, 7367
- noncoking coal, investigation..... IC 7647
- Carbonization assays, coal..... TP 611
- high-temperature, coal, tests, results.... RI 5383
- lignite, tests, results..... RI 5383
- low-temperature, coal..... B 571; TP 512
- apparatus..... B 530
- modifications..... RI 5383
- test..... B 530
- results..... RI 5383
- lignite, tests, results..... RI 5383
- medium-temperature, coal, tests, results... RI 5383
- lignite, tests, results..... RI 5383
- subbituminous coal..... RI 3457
- Carbonization characteristics, lignites..... RI 5260
- Carbonization plants, low-temperature, Germany, list..... IC 7490
- Carbonization power-plant process, Hellopore, tests..... RI 3783
- Carbonization processes, low-temperature, coal, description..... IC 7430
- Carbonization products, coal, effect of acids and alkalis..... RI 3726
- in externally heated retorts, correlation... RI 3482
- Carbonization tests, BM-AGA, cokes from, properties..... RI 3650
- gases from, yields and properties..... TP 696
- coal, results..... IC 7518
- Carbonization yields, lignite, effect of oxidation on..... RI 5277
- Carbonizing apparatus, tests..... TP 543
- Carbonizing methods, coal..... RI 5123
- Carbonizing procedures, with new experimental coke oven, Bureau of Mines experiment station, Alabama..... RI 5011
- Carbonizing properties, bituminous coal, study..... IC 7904
- coal..... B 344, 411, 474,
493, 496, 500, 501, 506, 510, 511, 522, 523, 528,
511, 512, 519, 524, 525, 531, 542, 543, 548,
562, 564, 570-572, 584, 594-596, 599, 601, 604,
616, 621, 623, 630, 634, 644, 649, 650, 655, 667,
670, 672, 683, 691, 692, 695, 697, 703, 711, 712,
720, 721, 726; M 5; RI 3749, 5029, 5101, 5131,
5136, 5159, 5185, 5229, 5257, 5258, 5269, 5314,
5359, 5374, 5399, 5432, 5453, 5455, 5524; OGS
12, 15.
- American, Bureau of Mines survey, bibliography..... B 536
- index..... B 536; TP 637; RI 3700
- determining, by BM-AGA method..... TP 635
- determination, standard procedures, development..... RI 5011
- Oyón region, Peru..... RI 4222
- preheating, effect..... RI 5418
- surveys..... IC 6992, 7052, 7105, 7143,
7190, 7272, 7322, 7352, 7417, 7446, 7518, 7565,
7618, 7647, 7663, 7669, 7756, 7794, 7904, 7905
- lignite..... TP 695
- subbituminous coal..... RI 3428, 3457
- Carbonizing tests, coal..... TP 702; RI 3695, 3700
- in sole-heated oven, results..... RI 5307
- in Tuscaloosa oven, results..... RI 5125,
5307, 5479
- low- and high-volatile, results..... RI 5307
- review..... IC 7272, 7417
- coke oven, experimental, Bureau of Mines experiment station, Alabama, results..... RI 5186, 5276
- new, Bureau of Mines experiment station, Alabama, results..... RI 5011, 5125
- Carbonyl sulfide, thermodynamic properties... B 406

B Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Carborundum, as electric-furnace lining..... B 77
Carborundum screen, for oil wells..... TP 247
Carboxylic acids, isolation, from coal tar..... B 412
Carburetors, adjustment, to increase mileage..... RI 2616
to save gasoline..... RI 2478
patents, bibliographies..... B 149,
165, 180, 189, 216, 220, 290
Cardinal Gold Mining Co., Calif., milling
methods and costs..... IC 7012
Cardox, field sampling..... RI 3537
handling, suggestions..... IC 7278
stemming, tests..... RI 3669
Cardox blasting devices, in boreholes, confining,
methods..... RI 3714; IC 7272
permissible, list..... RI 3736
pressure, rate of development..... RI 3084
propulsive strength..... RI 3084
tests..... RI 2920
Caretta No. 5 mine, W. Va., coal, carbonizing
properties..... B 522
Cargo coal, fires, prevention..... TP 326
Caribbean Islands, bauxite, deposits..... MS 3
Carius method, for determining sulfur in petro-
leums..... RI 2866
Carlsbad, N. Mex., potash ores, concentra-
tion..... RI 3271
Carlson-Jeffries mine, Mont., coal, wash-
ability data..... RI 5103
Carlton County, Minn., iron sulfide deposits,
investigation..... RI 4937
Carnallite, treatment, to produce potash..... B 274;
FP 16
Carnegie Institute of Technology, mining in-
vestigations..... CIT 63
Carnegieite, heat content..... RI 4955
Carnot cycle, diesel engines..... B 158
Carnotite ores, analyses..... B 70
as source of radium..... B 70,
104; RI 2873, 3057; IC 6312
as source of uranium..... B 104; RI 2873
as source of vanadium..... B 104; RI 2873
concentration..... B 70, 103; RI 3628, IC 6312
deflocculation concentration..... RI 3370
deposits, domestic..... B 70
grinding tests, dry differential..... RI 3636
mining methods..... B 70, 103; IC 6312
radium-uranium ratio..... TP 88
Caron process, for manganese-silver ores, de-
scription..... B 226
Carpenter centrifuge, for dewatering coal, de-
scription..... IC 7009
Carpenter Lake sodium sulfate deposit, N. Dak.,
drilling record..... RI 4880
Carryall, use, for mining manganese nodules..... RI 3839
Carson Hill Gold Mining Corp., Calif., mining
methods and costs..... IC 6940
Carter-Anna brine-disposal system, descrip-
tion..... RI 3434
Carter bed, Ala., coal, flotation tests, results..... RI 5397
Carteret gas masks, description..... IC 6206
Cartersville district, Ga., manganese-bearing ore,
concentration..... RI 3684
Cartersville manganese district, Ga., investiga-
tion..... RI 4539
Cartersville mining district, Ga., manganese,
analyses..... RI 5017
manganese deposits, examination..... RI 5017
Carthage gas field, Tex., petroleum-engineering
study..... RI 4698; IC 7506, 7532, 7551, 7616
Cartridges, blasting, preparation..... B 17, 51, 137, 349
diameter, effect on explosives..... RI 2436
miniature, for testing detonators..... RI 4031;
IC 7352; 7417
Cartridge sheaths, effect on gaseous products
from permissible explosives..... RI 3706,
4031, 4220
Cary mine, Wis., sinking large-diameter drill
holes..... IC 7354
Cascade, Idaho, black sands, beneficiation..... RI 5105
Cascade County, Mont., mineral deposits, in-
vestigation..... IC 7589
Cascade Range, Wash., Taylor hydraulic air
compressor, installation, review..... IC 7683
Caselton mine, Combined Metals Reduction Co.,
Nev., lead-zinc-silver ore, mining and
milling methods..... IC 7586
Casings, drill-hole, ground-resistance measure-
ments..... RI 3756
oil and gas well, corrosion..... B 233
perforated, in oil wells..... TP 247
Casing method, of cementing oil wells..... B 163
Casing troubles, in oil wells..... B 182
Casinghead gas, gasoline recovery..... B 88,
120, 151; TP 87
Cason mine, Ark., manganese ore, mineral-dress-
ing study..... RI 5005
manganese oxides, mineral-dressing study,
results..... RI 5301
Casoretti-Bertani electric zinc furnace, descrip-
tion..... B 208
Caspar Mountain chromite deposit, Wyo., in-
vestigation..... RI 4512
Cassel earth, properties..... IC 6504
Cassiterite, deposits..... IC 6018
metallurgy..... IC 6018
Cassiterite ore, flotation..... RI 3370, 3397
Cast iron, manganese in, effect..... IC 8771
production, in electric furnace..... TP 418
Casting, clay wares, description..... TP 126
sand, aluminum alloy, inclusions..... TP 290
Casting alloys, aluminum-copper, preparation..... TP 287
Casting practice, relation to shrinkage of non-
ferrous alloys..... RI 2410
Castle Gate No. 2 mine, Utah Fuel Co., Utah,
electric power, use..... IC 6747
Castle Mountain, Alaska, limestone, deposit..... RI 4932
Castle Mountain district, Mont., mineral de-
posits, investigation..... IC 7540
Castleman Basin, Md., coal, discussion..... IC 7446
petrography..... B 507
reserves, estimate..... B 507
coal beds, investigation..... B 507
review..... IC 7663
Castro chromite mine, Calif., investigation..... RI 4783
Catalysis, combustible gases, bibliography..... TP 120
petroleum hydrocarbons..... B 114
Catalysts, cobalt, studies..... B 578
Fischer-Tropsch, electron-microscope stud-
ies..... IC 7352, 7417, 7446
manufacture..... IC 7366
for hydrogenating shale oil, evaluation..... RI 5533
in Fischer-Tropsch synthesis, study..... IC 7905
gas, synthesis tests..... B 498
iron, synthesis with, study..... IC 7663
work on, summary..... B 578
manufacture and regeneration, I. G. Farben-
industrie A. G. plants, Ludwigshafen
and Oppau, Germany..... IC 7368
physical properties, correlation..... TP 709
preparation, effect, Bureau of Mines re-
search..... TP 709
synthetic liquid fuels, tests..... IC 7417
studies..... IC 7647
Catalyst beds, pressure-drop measurements, dis-
cussion..... RI 5541
Catalytic reactions, exothermic and endothermic,
occurring within narrow temperature
limits, converters for, design..... IC 7587
effectiveness, calculation..... IC 7587
Catalyzers, for chlorinating natural gas..... TP 255
Cathodes, liquid, electrolysis of magnesium
into..... RI 3805

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Cation exchangers, carbonaceous, in water treatment RI 3571
- Catron County, N. Mex., tin deposits, exploration RI 4068
- Catskill plant, North American Cement Corp., N.Y., limestone, quarrying methods and costs IC 6522
- Caudill-Ward No. 2 mine, Ky., coal, washing characteristics RI 4910
- Caulkins-McGuckin property, Wyo., oxide and silicate manganese ore, beneficiation RI 4445
- Caustic fusion method, for detecting selenium, description RI 5328
- Caustic fusion, for recovery of zirconium, process RI 5091
- Cave-in-Rock fluorspar district, Ill., mining practices IC 7514
- Caviglia-Vietti manganese ore, Nev., concentration tests RI 5023
- Caving methods, costs IC 6503
- discussion IC 6503
- limestone mining IC 6795
- Ceag miners' electric lamp, tests TP 75
- Cedar Grove bed, W. Va., coal, washing characteristics RI 5094, 5112, 5278, 5306
- coking coal, reserves, estimate RI 4966, 5068, 5259
- longwall mining with German coal planer, operation, summary RI 5355
- Cedartown Iron Co., Ga., limonite ore, exploration RI 4178
- Celestite, as paint extender, preparation and use IC 7264
- deposits IC 7200
- exploration RI 4018
- Cells, dry, in mining, use RI 3231
- dust counting, description IC 7331
- heated, internally, for refining titanium, design RI 5494
- tests RI 5494
- Cellosolve vapor, response of guinea pigs to PHS 1389
- Cellulose, in coal and lignite, occurrence B 38
- in explosives, determination B 219
- Cellulose nitrate, thermal decomposition, tracer study RI 4793
- Cellulose nitration, mechanism RI 5006
- Cement, annual data MR 1924-31; MY 1932-51, 1952 (vol. I)-1958 (vol. I); MYA 1932-35
- as briquet binder B 24
- as source of potash RI 2020
- consumption and prices, trends IC 6794, 7265
- defense aspects IC 7179
- demand, outlook IC 7157
- effect of acid mine waters RI 3487
- effect of sulfur compounds in air IC 7064
- hydraulic stripping B 160
- in Latin America, studies IC 7102, 7360
- in well drilling, use B 163, 195, 201; TP 32, 66
- magnesian, bibliography RI 2534
- specifications RI 2534
- uses B 236
- portland, materials for B 160
- retarders TP 451; RI 2705
- storage RI 2377
- transportation RI 2377
- postwar outlook MY 1943, 1944
- preparation, bibliography RI 2534
- crushing and grinding methods and costs IC 6446, 6553, 6554
- potash recovery B 47
- waste B 47
- prices IC 6794
- production B 536
- fuel saving, prospects WPA 5
- quarrying rock for, methods and costs B 160; IC 6356, 6448, 6513, 6522, 6554, 6603, 6608, 6610
- Cement, special, specifications MY 1935
- types B 556
- use, in grouting diamond-drill holes, tests RI 4559
- Cement and lime industry, refractories, annual consumption RI 5183
- Cement clinker, calcium sulfate retarders TP 451
- grinding characteristics RI 3704
- Cement company, bonus, effect on accident record IC 6176
- Cement copper, flotation TP 312
- Cement Creek district, Colo., tungsten deposits, study, results IC 7731
- Cement gun, in metal mines, use RI 2397
- Cement industry, annual review IC 7106
- growth IC 6687
- NRA code MY 1936
- Cement lining, application to old oil-field pipe IC 7314
- Cement manufacture, fuel efficiency, study WPA 5
- Cement materials, Pacific Northwest, data IC 7641
- Cement mills and quarries, accidents and employment, annual data MY 1938-41
- Cement plants, energy consumption WPA 5
- pulverized coal, use B 242
- Cement raw materials, beneficiation RI 3247
- Cement-rock quarries, accidents, annual data B 246, 263, 286, 288, 314, 325, 338, 366, 375, 376, 386, 399, 408, 416, 426, 432, 438, 447, 452, 458; TP 46, 73, 92, 128, 165, 193, 213, 245, 275, 295, 329, 353.
- prevention B 160
- Cementation, roof strata, bituminous-coal mine RI 5304
- Cementing process, for excluding water from oil wells TP 32
- Central America, cement industry, studies IC 7102, 7360
- fluorspar, deposits B 244
- gold, production, summarized data EP 6
- mica, deposits IC 6044
- minerals, production, annual data MR 1924-31; MY 1932-37, 1944-46; MYA 1932-35
- petroleum laws B 206
- silver, production, summarized data EP 8
- Central Coal Basin, coal-mine ventilation, inadequate, gas-accumulation hazards IC 7656
- mine development, suggested plan, for eliminating gas-accumulation hazards IC 7656
- Central Comstock mill, Nev., gold-silver dump ore and tailings, tests RI 4790
- Central district, coal, as generator fuel problems TP 246, 274
- as water-gas fuel B 203; IIG 22, 24
- low-sulfur, mines producing IIG 23
- Central Eureka Mining Co., Calif., mining methods and costs IC 6512
- Central Experiment Station, Pittsburgh, Pa., work B 175; DAR 1915-21, 1923-36; IC 6060
- Central heating systems, corrosion, abatement TP 236
- costs B 27
- for community service, advantages TP 191
- Central mill, Eagle-Picher Mining & Smelting Co., Okla., milling investigations RI 4511
- Central mine rescue station, Mather mine B shaft, Cleveland-Cliffs Iron Co., Mich., description IC 7702
- equipment IC 7702
- underground training facilities IC 7702
- Central mining district, N. Mex., Kearney zinc-lead mine, mining methods and costs IC 7507
- Central-Old Forge colliery, Pa., deep-well pumps, performance records RI 4656
- Central Patricia Mines, Ltd., Ontario, Canada, development methods and costs IC 6681
- Central power plants, economical operation TP 204, 217

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Central States, bituminous coal, strip mining, methods.....	IC 6959	Cerous fluoride, entropy at 298.15° K.....	RI 5510
coal, preparation, practice.....	RI 2669R	heat content values.....	RI 5510
fuel oil, distribution.....	IC 6061, 6204	Certain-teed Products Corp., Acme gypsum mine, Tex., shuttle-car conversion from storage-battery to diesel-electric power.....	RI 4643
metals, production, annual data.....	MR 1924-31; MY 1932-46	Certificates, mine rescue training, recipients, lists.....	TP 167, 226
mining ore, in open stopes.....	B 390; IC 6193	Cerussite, distinguishing, by staining method.....	RI 2932
petroleum products, distribution.....	IC 6061, 6204	flotation, with galena.....	RI 3214
Centrifugal fans, performance charts.....	RI 3298	grinding tests.....	RI 3364
Centrifugal pumps, operation, in anthracite mines, Pennsylvania.....	RI 4749	identification.....	RI 3214
types.....	RI 4749	Cesium, annual data.....	MY 1943, 1948, 1950, 1951, 1952 (vol. I)-1958 (vol. I)
Centrifugal-spray evaporator, for clay suspensions.....	RI 3248	bibliography.....	IC 6215
Centrifugal testing, model mine roof reinforced by bolts.....	RI 5154	deposits.....	IC 7232
Centrifugal-testing apparatus, construction.....	RI 4883	entropies.....	B 394, 434, 476, 477
operation.....	RI 4883	fusion, heats.....	B 393
tests.....	RI 4883	heat and free energy of vaporization equations.....	B 383
Centrifuge, molten-metal, apparatus.....	RI 5007	heat content, data.....	B 476
Centrifuge method, high-speed, for determining water content of oil-reservoir rocks, description.....	RI 5451	metallurgy.....	B 556
Century Zinc Co., Hartley-Grantham zinc mine, Kans., mining methods and costs.....	IC 6286	properties.....	B 556; IC 6215
Ceramics, electric firing, studies.....	RI 3538	specific-heat equations.....	B 371
electrothermal investigations.....	RI 3473	uses.....	B 556
examination, use of polarizing comparison microscope.....	RI 3503	vapor pressure.....	B 383
use of concentrator waste sand in, study.....	RI 5216	Cesium bicarbonate, thermodynamic properties.....	B 384
Ceramic industries, effect of World War I.....	TP 99	Cesium carbonate, thermodynamic properties.....	B 384
Ceramic investigations, bibliographies.....	RI 2437, 2645	Cesium metal, research.....	B 553
Ceramic kilns, down-draft, burning coal in.....	TP 598	Cesium oxide, heat and free-energy-of-formation values, tabulation.....	B 542
Ceramic materials, American, investigations.....	RI 3509	Ceylon, graphite, burning rate.....	RI 3692
consumption and prices.....	IC 6794	mine fatalities, data.....	B 75
Ceramic plants, Pacific Northwest, production, tables.....	IC 7752	minerals, production, annual data.....	MY 1949-51
Ceramic raw-material resources, Pacific Northwest, survey.....	IC 7752	mineral industry, review.....	MY 1945, 1946
Ceramic wares, imports.....	TP 99	mining laws, synopsis.....	IC 6715
Cerargyrite, flotation, factors.....	RI 3436	zirconium industry.....	IC 6456
grinding tests.....	RI 3364	Ceylon Graphite Co., Ala., graphite deposit, description.....	RI 4366
Cerresin wax, from ozokerite, manufacture.....	UTA B 16	Chaffee County, Colo., clay, deposits.....	RI 5553
Cerite, occurrence.....	IC 6847	iron ore, reconnaissance.....	IC 7918
Cerium, analytical methods.....	B 212	tungsten prospects, description.....	IC 7748
annual data.....	MY 1942-44, 1947-50	Chain-grate stokers, ignition and burning of solid fuels on, investigation.....	B 563
bibliography.....	IC 6321	use.....	B 40
deposits.....	IC 6847	Chain reaction, between hydrogen and oxygen, initiation.....	RI 4667
entropies.....	B 350, 394, 434, 476, 477	Chalcedony, grinding characteristics.....	RI 3704
fusion, heats.....	B 393	Chalcoelite, determination, microscopic.....	RI 2257
heat content, data.....	B 476	dissolution.....	RI 3228
in bastnasite ores, determination.....	RI 4919	flotation tests.....	UTA TP 4
liquid-liquid extraction.....	RI 5513	hydrometallurgy.....	RI 3228
monazite sand as source.....	IC 7233	leaching, chemistry.....	TP 473
properties.....	IC 6321	oxidized copper in, determination.....	RI 3228
Cerium (IV), extraction, process, development.....	RI 5536	Chalcopyrite, determination, microscopic.....	RI 2257
Cerium family, properties.....	IC 6847	dissolution tests.....	RI 3228
Cerium-iron alloy, uses.....	B 100, 212	flotation.....	TP 182
Cerium mineral, concentration tests.....	RI 4919	grinding characteristics.....	RI 3704
Cerium monosulfide, entropy at 298.15° K.....	RI 5485	heat treatment, results.....	RI 3223
heat and free energy of formation at 298.15° K.....	RI 5485	hydrometallurgy.....	RI 3228
heat capacities, low-temperature.....	RI 5485	oxidized copper in, determination.....	RI 3228
Cerium nitrate, uses.....	IC 6321	thermodynamic properties.....	B 406
Cerium nitride, thermodynamic properties.....	B 407	Chalcopyrite-pyrrhotite ores, flotation.....	TP 182
Cerium oxides, heat and free-energy-of-formation values, tabulation.....	B 542	Chalk, deposits.....	B 395; IC 6482, 6483
Cerium sesquisulfide, entropy at 298.15° K.....	RI 5485	manufacture, processes.....	IC 7197
heat and free energy of formation at 298.15° K.....	RI 5485	strain pulse in, explosion-generated, propagation.....	RI 5483
heat capacities, low-temperature.....	RI 5485	uses.....	IC 7197
Cerium steels, production.....	B 199	Chamber, underground, natural ventilation.....	RI 3353
Cermak-Spirek furnace, for roasting quicksilver ore.....	B 222	Chamber process, for manufacture of sulfuric acid.....	B 184
		Chamberlain, S. Dak., manganese carbonate ores, matte smelting.....	RI 3659
		manganese nodules, ore-dressing studies.....	RI 3609, 3613
		pilot-plant production of electrolytic manganese from.....	RI 3862

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Chamberlain, S. Dak., manganese ore, matte smelting, pilot-plant tests	RI 3917
Missouri Valley manganese, mining and concentration	RI 3839
Chamberlain-Barnardville iron deposit, Tenn., exploration	RI 3957
Chambers copper deposit, Ga., investigation	RI 4665
Chambers deposit, Oreg., chromite, exploration tests	RI 5238
Chambers property, Oreg., chrome ore, refractory properties, investigation	RI 4929
Champion copper mine, Mich., mining methods and costs	B 390; IC 6515
rock, physical and petrographic properties	RI 4459, 4727
Chance process, for coal separation	RI 2669R
Chancellor fluorite deposit, Colo., diamond drilling	RI 4483
Change houses, American mines	IC 7423
arrangement	IC 7423
essential features	IC 7423
Germany	IC 7423
heating and ventilation	IC 7423
Lake Superior iron-ore district	IC 7489
mines, laws and regulations	IC 7423
miners' construction	TP 116, 289; IC 7423
Channel process, for manufacture of carbon black	RI 2091
Channel-roller, pulverizer, details	RI 3682, 3704
Channeling, in fluidized beds	B 504
Channeling machine, for marble quarries	B 106
for sandstone quarries	B 124
for slate quarrying, comparison with wire saw	RI 2820
Chanute-Humboldt field, Kans., waterflooding operations, for secondary recovery of oil, study	IC 7616
Chapin oxide manganese ore, Calif., concentration tests	RI 4599
Chaplet electric furnace, for ferroalloys	B 67
Char, bituminous, Lurgi gasification, producing synthetic pipeline gas by, economic aspects	RI 5547
flotation	RI 3897
lignite, as reduction fuel, in smelting zinc ores, tests	RI 2575
low temperature, volatile matter, determination	RI 3168
Charcoal, absorbent, for gases	B 178A; TP 248
as fuel, in gas producer	B 13; TP 9
as reducing agent, in electric furnace	B 67, 77
formation of carbon monoxide from	B 7
in black powder, determination	B 51
use	B 15, 17
in coal, origin	B 38
testing, for precipitation	TP 378
Charges, shaped, application to mining	RI 4371
military demolition-type, description	RI 4371
for drilling blastholes	RI 4371
zinciferous, handling, in lead blast furnace	RI 3242, 3244-3246, 3264
preliminary sintering	RI 3243
Charges vs. spelter production rates, in horizontal zinc retort	RI 4335
Charging, lead blast furnace, methods	RI 3246
wet, in leaching copper ores, advantages	RI 3050
Charlie Combs mine, Ky., coal, washing characteristics	RI 4093
Chateaugay iron mine, N.Y., rock, physical and petrographic properties	RI 4459
Cheatham bauxite deposit, Pulaski County, Ark., drilling records	RI 4254
Checking systems, coal mine, summary	IC 6281
Chediski iron deposit, Ariz., investigation	RI 4093
Cheever limonite deposit, Mass., investigation	RI 4423
Chelan County, Wash., copper-zinc-silver-gold ore, mining methods and costs	IC 7870
Chemehuevi mine, Calif., manganese ore, concentration tests	RI 5163
Chemicals, thallium in, determination, spectrochemical method	RI 4461
use, in solidifying soil in tunneling at iron-ore mine	IC 7846
in treating timber, methods	IC 7597
Chemical-cartridge respirators, approved by Bureau of Mines, list	IC 7895
permissible, requirements	S 28B
tests	S 28B
Chemical concentrator, for sulfuric acid works	B 184
Chemical industry, as consumer of silver	EP 14
NRA code	MY 1934-35
Chemical nitrogen industry, resources, North Dakota, discussion	IC 7697
Chemical nitrogen products, manufacture, from North Dakota resources, processes applicable	IC 7697
Chemical plants, investment and operating costs, bibliographies	IC 7516, 7705, 7751, 7848, 7884, 7916
Chemical stoneware, properties	TP 238
Chemical studies, iron catalysts, for synthesis of hydrocarbons	TP 718
Chemical-type operations, cost, estimating, guide	RI 4534
Chemical Warfare Service, carbon monoxide detector, tests, in mines	RI 2207
Chemigum, properties	IC 7242
Chemists, preparedness census	TP 179
Chemistry, gas manufacture, bibliography	TP 120
Chemox oxygen breathing apparatus, care and use	IC 7808
description	IC 7808
Cherokee iron deposits, N.C., exploration	RI 3974
Cherokee iron mine, Ga., exploration	RI 4178
Cherry Creek tungsten district, Nev., investigation	RI 4631
Cherry Valley filled-sink iron deposit, Mo., investigation	RI 4452
Cherryvale oil field, Labette County, Kans., waterflooding project, description	RI 5317
Chert, bibliography	B 266
deposits	B 266
grindability, tests	RI 3239
grinding characteristics	RI 3704
mining methods	B 266
pebbles, for grinding, supplies	TP 99
utilization	B 266
Chesapeake & Ohio RR., tunnels, atmospheres, tests	RI 2658
Chestatee copper-pyrite deposit, Ga., investigation	RI 4397
Chewelah district, Stevens County, Wash., copper, mine production	IC 7872
gold, mine production	IC 7872
lead, mine production	IC 7872
silver, mine production	IC 7872
zinc, mine production	IC 7872
Chicago, Ill., smoke-abatement ordinance	B 49, 254
Chichagof Island, Alaska, Gypsum-Camel prospect, diamond drilling	RI 4852
Mirror Harbor nickel deposits, investigation	RI 4168
Chickaloon formation shale, Matanuska Valley, Alaska, clay-utilisation tests, results	RI 4062
lightweight-aggregate tests, results	RI 4062

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Chickaloon mine, Matanuska Valley, Alaska, coal, carbonizing properties..... B 510
- Chickasaw coal lands, Okla., improved mining methods..... TP 154
- Chickasha gas field, Okla., engineering reports..... OBC 3; OOC
- Chief Consolidated Mining Co., Chief lead-zinc mine, Utah, mining methods and costs..... IC 7828
- water-control methods and costs..... IC 7828
- Utah, milling methods and costs..... B 381; IC 6320
- Chikuho coal field, Japan, safety practices..... IC 7542
- Childers-Delaware field, Okla., oil sands, water-flooding, injection tests..... RI 4600
- Childers No. 7 mine, Ky., coal, washing characteristics..... RI 4993
- Children, accidents from blasting caps..... IC 7275
- Childress filled-sink iron deposit, Mo., investigation..... RI 4452
- Chile, Braden Copper Co., mining methods and costs..... B 390; IC 6565
- cement industry, studies..... IC 7102, 7360
- coal, analyses..... B 474, 512
- carbonisation test..... IC 7417
- carbonizing properties..... B 474
- characteristics..... IC 7352
- mining methods..... B 474
- mining practices, study..... IC 7565
- washing characteristics..... B 474; IC 7565
- cobalt, deposits..... MS 5
- copper, deposits..... MS 6
- production, summarized data..... EP 1
- crude oil, analyses..... RI 4657
- bibliography..... RI 4657
- gold, production, summarized data..... EP 6
- gold-copper ore, chloride volatilization test..... RI 4612
- floatation tests..... RI 4612
- iron ore, deposits..... MS 8
- lead, resources..... MS 9
- Lirquen mine, coal, carbonizing properties..... B 474
- Lota mine, coal, carbonizing properties..... B 474
- manganese, deposits..... MS 10
- Mina Elena, coal, carbonizing properties..... B 474
- Mina Vulcano, coal, carbonizing properties..... B 474
- minerals, production, annual data..... MR 1924-31; MY 1932-47, 1949-51; MYA 1932-35
- mineral industry, review..... MY 1947
- mining industries, situation..... FMS 4
- mining laws, synopsis..... IC 6252
- molybdenum, deposits..... EP 15
- nitrate, deposits..... B 556
- investigation..... DAR 1924
- petroleum laws..... B 206
- effect on production..... RI 2250
- Pupunahue mine, coal, carbonizing properties..... B 474
- Schwager mine, coal, carbonizing properties..... B 474
- silver, production, summarized data..... EP 8
- zinc, resources..... MS 11
- Chilton "A" bed, W. Va., coking coal, reserves, estimate..... RI 5068, 5259
- Chilton bed, Va., coal, carbonizing properties..... B 500; TP 542; M 5
- constitution..... TP 542; M 5
- W. Va., coal, blending with Pocahontas No. 8 bed, W. Va., coal, effect..... RI 4552
- petrographic composition, relation with free-swelling properties..... RI 5294
- washing characteristics..... RI 5306
- coking coal, reserves, estimate..... RI 4966, 5068, 5259
- Chimneys, draft..... B 21
- Chimney gases, analyses..... B 39
- heat losses..... B 23; TP 80
- China, antimony, deposits..... MS 1
- asbestos, deposits..... MS 2
- China, bauxite, deposits..... MS 3; MTN 27
- coal, analyses..... B 512; RI 2708
- weight per cubic foot..... TP 184
- cobalt, resources..... MS 5
- gold, production, summarized data..... EP 6
- iron ore, deposits..... MTN 38
- lead, resources..... MS 9
- light-metals industries..... MTN 23
- manganese, deposits..... MS 10
- minerals, production, annual data..... MR 1924-31; MY 1932-46, 1949-51; MYA 1932-35
- mineral resources..... FMS 16
- mining laws, synopsis..... IC 6111
- molybdenum, deposits..... EP 15
- talc, deposits..... B 213
- tin, deposits..... IC 6018
- production, summarized data..... EP 13
- zinc, production, summarized data..... EP 2
- resources..... MS 12
- China clay, annual data..... MY 1938-51, 1952 (vol. I)-1958 (vol. I)
- deposits, study..... WCM 78
- foreign trade..... B 556
- international aspects, economic study..... McG-H
- production..... B 556
- tests..... B 451
- uses..... B 556
- world data, chart..... MY 1938
- China-clay industry, effect of World War I..... TP 99
- Chinatol zinc-lead deposits, Tex., investigation..... RI 4506
- China-ware, suitability of clays for..... B 128
- Chinn area, Ark., manganese carbonate deposits, investigation..... RI 4859
- wad deposits, investigation..... RI 4859
- Chinn property, Ark., manganese-bearing limestone, mineral-dressing research, results..... RI 5301
- manganese wad ores, beneficiation..... RI 3614
- Chinn, W. A., property, Ark., wad manganese ore, mineral-dressing research, results..... RI 5301
- Chino mines, Nevada Consolidated Copper Co., N. Mex., mining methods and costs..... B 356; IC 6412
- Chino open-pit copper mine, Kennecott Copper Corp., N. Mex., mining methods and practices..... IC 7837
- Chippewa copper-nickel mine, Wis., investigation..... RI 5114
- Chippewa shaft, Leadville district, Colo., investigation..... RI 4518
- Chloracetophenone, as warning agent, for fuel gases, tests..... M 4
- Chlorates, in mixtures with reducing materials, hazards..... IC 7340
- Chlorides, fused mixtures, density measurements..... RI 4858
- electrical conductivity measurements..... RI 4858
- metallic, vapor pressure..... TP 360
- water-soluble, in petroleum, determining..... RI 3517
- Chloride-dilution method, for determining water content of oil-reservoir rocks..... RI 5451
- Chloride electrolytes, electrowinning manganese from, semipilot-plant investigation..... RI 4817
- Chloride volatilization, complex ores..... B 211; RI 2247
- gold, recovery of fumes from..... RI 4582
- lithium from spodumene..... RI 3344
- oxidized lead ore..... RI 5409
- problems..... UTA TP 3
- Chloride-volatilization process, for treating manganese ores..... RI 5281
- Chloridization, manganese ore, in fluidized bed, tests, results..... RI 5271
- in static bed, tests, results..... RI 5271
- Chloridizing roasting, ores..... B 157, 163, 226; TP 90
- silver losses..... TP 317

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Chlorination, low-temperature, columbium-bearing titanium minerals..... RI 5349
 natural gas, study..... TP 255
 Chlorine, as mineral commodity, annual data..... MY 1935
 entropies..... B 350, 394, 434, 476, 477
 flammability limits..... B 279R
 fusion, heats..... B 393
 hazards..... IC 6009
 heat and free energy of vaporization equations..... B 383
 heat content, data..... B 476
 in coal, determination, studies..... IC 7565, 7904
 occurrence..... TP 669
 liberation, from polymonochlorotrifluoroethylene, at decomposition temperature... RI 4756
 specific-heat equations..... B 371
 uses..... B 47
 vapor pressure..... B 383
 Chlorine oxides, heat and free-energy-of-formation values, tabulation..... B 542
 Chlorobenzene, flammability limits..... B 503
 Chlorobutene, flammability limits..... B 503
 Chloroform, flammability limits..... B 279R
 production, from natural gas..... TP 255
 solubility of oil shale in..... RI 2313
 Chloroprene, as raw material for synthetic rubber..... IC 7242
 2-Chloropropene, flammability limits..... B 503
 Choctaw coal lands, Okla., improved mining methods..... TP 154
 Choke damp, definition..... MC 14
 Choke nipples, for measuring gas-delivery rates... M 7R
 Chosen, gold, production, summarized data... EP 6
 minerals, production, annual data... MR 1924-31;
 MY 1932-37; MYA 1932-35
 mining laws, synopsis..... IC 6700
 molybdenum, deposits..... EP 15
 zinc, production, summarized data..... EP 2
 Choteau titaniferous magnetite deposit, Mont., exploration..... RI 3981
 Christensen process, for volatilizing ores..... B 157
 Christmas bed, Tenn., coking coal, reserves, estimate..... RI 5266
 Christmas copper deposit, Ariz., investigation..... RI 4293
 Christmas Island, phosphate rock, exports, annual data..... MY 1949-51
 Christmas mine, Ariz., diamond-drill holes, grouting..... RI 4559
 Christmas property, Utah, alunite deposits, exploration..... RI 3972
 Christy brookite ore, Ark., flotation, results... RI 5064
 Christy process, for electrodeposition of gold and silver..... B 150
 Christy property, Ark., titanium ore, mineral-dressing investigation..... RI 4851
 Christy titanium deposit, Ark., investigation... RI 4592
 Chromates, production, from chromite ores, by roasting..... RI 2999
 from domestic ores..... RI 3480; WSC 3
 Chrome ore, beneficiation, tests..... RI 3328
 domestic, treatment..... RI 3480; WSC 3
 utilization, study..... RI 3322
 Chrome Queen claim, Alaska, chromite ore, beneficiation study..... RI 5377
 Chromic oxide, high-temperature heat content... TP 662
 reduction by carbon, equilibria... TP 662; RI 3747
 Chromic sulfate, isomers, spectrophotometric studies..... RI 4779
 Chromite, annual data... MR 1924-31; MY 1932-46
 Bureau of Mines exploration projects, war... RI 3801
 concentration..... RI 3049
 conversion..... RI 2999

R Revised.

Chromite, deposits..... RI 3694R; IC 6566
 Cedros Island, Lower California, Mexico, examination..... MTN 33
 investigation..... MY 1942;
 RI 3676, 3885, 4311, 4356, 4365, 4368, 4369,
 4383, 4419, 4512, 4516, 4576, 4619, 5238; MTN 33
 ferrous, reduction by hydrogen..... RI 3813
 thermodynamic properties..... RI 3397
 flotation..... RI 3397
 for furnace linings..... B 77
 heat treatment, results..... RI 3223
 in sand deposits, concentration..... RI 3668
 international aspects, economic study..... McG-H
 iron in, reduction, by methane-hydrogen mixtures..... RI 3847
 energy requirements..... RI 3813
 matte smelting..... RI 3322
 mining, Turkey, economic study..... MTN 57
 natural, heat content..... RI 3813
 pilot-plant kiln operation..... RI 3843
 postwar outlook..... MY 1943, 1944
 production, world..... B 556
 refractory properties..... RI 3694R; IC 6974
 investigation..... RI 4929
 reserves..... IC 6068
 resources..... GS 3
 selective reduction, theoretical aspects... RI 3817
 strategic mineral investigations..... MY 1941,
 1942; DAR 1940-42; RI 3574
 supplies, sources, shift..... IC 6886
 thermal balance..... RI 3834
 trade data..... IC 6566, 6886
 world data, chart..... MY 1966
 Chromite concentrate, beneficiation, by roasting and leaching..... RI 3834
 electric smelting..... RI 5268
 magnetic separation tests..... RI 3370
 Chromite mines, investigation..... RI 4963,
 4578, 4597, 4783
 Chromite mine area, investigation..... RI 4383
 Chromite ore, beneficiation..... RI 3484, 4079, 5377
 chemical, effect of variables..... RI 3817
 chlorination..... B 436; RI 3331
 chromium in, determination..... RI 3370
 concentration..... RI 3419, 5172
 flotation tests..... RI 3370
 magnetic separation tests..... RI 3370
 metallurgical investigation..... RI 5268
 reducibility..... RI 3817
 roasting, to produce chromates..... RI 2999
 treatment..... RI 3331
 Chromium, annual data..... MY 1946-51,
 1952 (vol. I)-1958 (vol. I)
 chloride metallurgy, features..... B 436
 decarburization..... B 407; RI 3747
 economic study..... IC 6088
 electrolytic, work on..... RI 5322
 electrometallurgical studies..... RI 3547, 3600
 entropies..... B 350, 394, 434, 476, 477
 fusion, heats..... B 393
 heat and free energy of vaporization equations..... B 383
 heat content, data..... B 476
 high-purity, preparation, by electrodeposition..... RI 5305
 in alloys, determination..... B 212
 in chromite ores, determination..... RI 3370
 in coal, occurrence..... TP 669
 oxidic, gaseous reduction..... B 436
 production..... RI 4084
 methods..... RI 4763
 properties..... IC 6068, 6566
 pure, at elevated temperature, tensile properties..... RI 5056
 tensile tests, results..... RI 5058
 bibliography..... RI 3920

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Chromium, pure, malleability tests..... RI 4905
 preparation from chromium chlorides... RI 3480
 production, by hydrogen treatment of electrolytic chromium..... RI 4905
 by magnesium reduction of chromium chloride..... RI 4905
 reduction, thermodynamic..... RI 3306
 specific-heat equations..... B 371
 sponge, preparation..... B 436; RI 3419
 technology..... B 556
 thermodynamic data..... TP 577
 uses..... B 556; IC 6038, 6566
 vapor pressure..... B 383
 war investigation..... B 178B
 war regulations..... MY 1942
 Chromium-base alloys, high-purity, with ductility, production, study..... RI 5107
 Chromium carbides, high-temperature heat content..... TP 662
 specific heats..... TP 662
 thermodynamic data..... B 407; TP 662
 Chromium chemicals industry, NRA code.... MY 1935
 Chromium chlorides, anhydrous, preparation and properties..... TP 577
 thermodynamic properties..... B 436
 chemistry, thermodynamic study..... RI 3331
 Chromium-cobalt-zirconium alloys, study..... RI 4658
 Chromium industry, Mineral Policy Committee, recommendations..... MY 1985
 status..... IC 6038
 Chromium metal, electrowinning..... RI 5322
 Chromium mica, study..... RI 4721
 Chromium-nickel-iron ore, recovery of nickel from..... RI 4084
 Chromium nitride, thermodynamic properties... B 407
 Chromium oxides, heat and free-energy-of-formation values, tabulation..... B 542
 Chromium plating industry, NRA code.... MY 1935
 Chromium powder, explosibility..... RI 3722
 flammability..... RI 3722
 Chromium-rich alloys, investigation..... RI 5107
 Chromium steel, manufacture..... B 100
 Chromium-vanadium steel, manufacture..... B 100
 Chromium-zirconium alloys, study..... RI 4658
 Chronoscope, electronic, for measuring velocity of explosives, detonation..... RI 3879
 Chrysocolla, dissolution, tests..... RI 2934, 3223
 floatability..... RI 3547
 oxidized copper in, determination..... RI 3228
 Chrysoprase, deposits..... IC 6561
 Chrysotile, deposits..... IC 6790
 Chrysotile- asbestos deposits, Arizona, description..... IC 7706, 7745
 Chulitna district, Alaska, Costello Creek coal mine, investigation..... RI 4360
 Dunkle, W. E., coal mine, investigation... RI 4360
 Chulitna River area, Alaska, argillite, light-weight-aggregate tests, results..... RI 4982
 limestone, deposits..... RI 4932
 Church-Fields-McElroy oil field, Tex., engineering report..... RI 3118
 Churchill County, Nev., mining districts, reconnaissance..... IC 7003
 Churchwell tract, Tenn., brown iron ores, exploration..... RI 8965
 Churn drill, at lime-plant quarries, use..... RI 2424
 operation..... BI 4058
 to obtain ore samples, use..... B 107, 356
 Churn-drill holes, stripping, shaft sinking by... IC 7306
 Churn-drill performance, tests..... RI 4058
 Churn drilling, safety practices, open-pit copper mine, Morenci Branch, Phelps Dodge Corp., Ariz..... IC 7548
 Chutes, hanging ore columns in, blasting..... RI 2790
 loading, trolley wires, safety cut-out..... RI 2248
 Chute accidents, nonferrous-metal mills and concentrators, prevention..... NMP 2
 nonferrous smelters, refineries, and reduction plants, prevention..... NMP 3
 Chute gates, metal mine, description..... IC 6495
 Chute sets, in undercut block-caving methods, description..... IC 6350
 Cinnabar, beneficiation..... RI 3628
 deposits..... IC 6966
 gravity concentration..... RI 3564
 metallurgy..... B 222
 reduction plants, description..... RI 3627
 Cinnabar Creek mercury deposits, Alaska, exploration..... RI 4065
 Cinnabar ore, concentration tests..... RI 4620
 Cinnabar-stibnite ore, recovery of antimony and mercury from, mineral-dressing studies..... RI 5243
 recovery of mercury from, by flotation and fluidized-bed roasting..... RI 5433
 Circuits, in gassy coal mines, voltage..... IC 6556
 Circuit breaker, functions..... IC 7624
 Circuit-breaker protection, adequate, 250-275-volt d.c. systems, coal mines, minimize fire hazards..... IC 7624
 250-275-volt d.c. systems, coal mines, effectiveness, tests..... IC 7624
 Circular system, for mud-laden fluid..... B 134
 Circulatory system, description..... FAI
 Cisco formation, North Texas, recovery of oil, effect of hydraulic fracturing on.... RI 5371
 Cities Service Oil Co. El Dorado Shallow-sand project, Kans., oil sands, waterflooding..... IC 7750
 Citric acid and nonionic detergent, use in clean-out procedures, water-input wells, in waterflooding projects, tests..... IC 7797
 City air, sulfur compounds in, concentration... IC 7066
 City gas, purification, with iron oxide..... IIG 119
 City ordinances, smoke abatement... B 39, 49; TP 338
 Claiborne County, Tenn., coal, analyses..... RI 5229
 carbonizing properties..... RI 5229
 preparation and characteristics..... RI 5229
 coking coal, reserves, estimate..... RI 5229
 Claims, mining, on Public Domain, locating..... IC 6843E, 7535
 Claim Point chromite deposits, Alaska, investigation..... RI 4419
 Clamshell dredge, in sand and gravel excavation..... IC 6826
 Clanny lamp, description..... B 227; MC 12
 development, tests..... B 227
 Clarendon sand, Appalachian oil field, Pa., core properties and interstitial water data..... RI 5438
 Clarendon sandstone, Pa., cable-tool coring, using oil-base drilling mud fluid, investigation, results..... RI 5424
 Clarion bed, Pa., coal, washing characteristics..... RI 4815, 4834, 4941
 coking coal, reserves, estimate..... RI 4734, 4801, 4840, 4998
 Clarion-Brookville bed, Pa., coking coal, reserves, estimate..... RI 4807
 Clarion County, Pa., coal, analyses..... RI 5231
 coking coal, reserves, estimate..... RI 5231
 Clark bed, Ala., coal, washability studies.... RI 3014, 4160
 Clark bottom-hole intermitter, for oil wells, description..... RI 3330
 Clark County, Nev., manganese deposits, exploration..... RI 5446
 mining districts, reconnaissance..... IC 6964
 Clark Fork lead-zinc district, Idaho, investigation..... RI 3992

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Clark mine, Md., coal, washing characteristics. TP 701
 Classification, batch, laboratory study. RI 2924
 coal. B 337; IC 6094, 6933; M 4
 hindered-settling, lead-zinc ores, relation to
 table concentration. RI 2618
 hydraulic, continuous, constitution of teeter
 column. RI 3851
 fundamentals. TP 403
 needs. RI 2669
 ores, difficult. TP 456
 practice. RI 2669R
 red iron. RI 3224
 studies. RI 2989, 2990
 Classifiers, automatic, tests. RI 2669R
 hydraulic, performance, tests. RI 3844
 use of periodic pincer. RI 3750
 multiple cell, products, bilateral diagrams. RI 3789
 Clays, acid extraction of alumina from. RI 3737
 adsorbent, evaluating, methods. IC 7475
 alumina from, preparation, by Miguet proc-
 ess. RI 2393
 production, tests. RI 3675
 American, for ceramics, investigation. RI 3599
 analyses. TP 212
 chemical, procedure. RI 4420
 thermal. RI 3762, 3764
 application. TP 664
 annual data. MR 1924-31; MY 1932-51,
 1952 (vol. I)-1958 (vol. I); MYA 1932-35
 as binder, for briquets. B 24, 58
 as paint extender, preparation and use. IC 7264
 beneficiation, by electro-osmosis, Germany. MTN 18
 for production of whiteware. RI 3427, 3473
 bentonitic, use in oil-well drilling muds, evalu-
 ation. RI 5487
 bibliography. IC 6155
 bleaching, evaluation, method. RI 4295
 bloating tests, results. RI 5065, 5202
 ceramic tests, results. RI 4449
 classification. IC 6155
 by uses. RI 3675
 colored, possibilities. B 304
 economic study. IC 6998
 effect on permeability of petroleum reservoir
 sands to saline waters. RI 5180
 effect on water content of reservoir rocks. RI 5451
 elutriation, practice. RI 2669R
 expansion tests, in rotary kiln, results. RI 5202
 explosive shattering. RI 3223
 extraction of alumina from. TP 688
 flotation. RI 3397
 fractionation, by froth flotation. IC 6974
 geology. B 252
 grinding methods and costs. IC 6913,
 6921, 6929, 6962
 high-alumina, investigation. RI 4427
 in coal, characteristics. TP 648
 in face brick, use. B 252
 in petroleum-reservoir rocks, identifica-
 tion. RI 5425
 in refractories, use. B 252
 investigations. RI 3538, 5065
 lightweight-aggregate tests, results, Alaska. RI 4932
 marketing. IC 6998
 mining methods and costs. IC 6155,
 6657, 6913, 6921, 6929, 6962
 miscellaneous, production. B 556
 oil-bleaching, commercial use. IC 7475
 description. IC 7475
 oil-clarifying capacity, contact process. IC 7475
 percolation process. IC 7475
 Pacific Northwest, data. IC 7641
 postwar outlook. MY 1943, 1944
 preparation. IC 6155
 production. IC 6155

Clays, production of alumina from, elimination
 of iron in ammonium sulfate process. RI 4188
 production of iron-free alum from, laboratory
 development. RI 4191
 pilot-plant development. RI 4351
 production of lightweight concrete aggregates
 from, tests. RI 4401
 properties. B 556
 determination, tests, description. B 565
 purification, electrolytes, use. B 128; TP 281
 recovery of alumina. B 465
 refractory, deposits. RI 5553
 study. OGM 6
 role, in oil-well drilling. RI 3599
 stoneware, properties. TP 233
 tariff. IC 6155
 technology. WCM 18
 tests, for ceramic and nonceramic uses. B 451
 uses. IC 6155
 for softening hard water. RI 3578
 in oil-well drilling fluids. RI 3556
 tests, results, Alaska. RI 4982
 washing tests. B 252
 water sensitivity, effect on permeability of pe-
 troleum-reservoir rocks. RI 5425
 white, mining. RI 2382
 preparation. RI 2382
 removal of stain. RI 3599
 wool-blowing tests, results. RI 5203
 Clay area, exploration. RI 4218
 Clay City oil field, McCloskey limestone, Ill.,
 water-flooding tests. RI 3792
 Clay City Pipe Co., Ohio, grinding methods and
 costs. IC 6913
 Clay deposits, examination. IC 6155
 high-alumina, investigation. RI 4827
 investigation. RI 3676, 4219, 4329, 4379, 4416, 5157
 Clay industries, annual review. IC 7106
 Clay materials, in coal mines. IIG 18
 Clay minerals, pleochroism, artificial. RI 3522
 staining, for identification. RI 3522
 thermal analysis. RI 3737
 Clay products, manufacture. IC 6155
 Clay Products, Inc., Knik Arm, Alaska, clay,
 lightweight-aggregate tests, re-
 sults. RI 4982
 utilization tests, results. RI 4982
 Clay-products industry, growth. IC 6667
 Clay samples, analyses. RI 3737, 4219
 oil-producing formations, water-vapor adsorp-
 tion, tests, results. RI 5423
 Clay sand, sieve analyses. RI 3325
 Clay suspensions, dewatering, by spray evapora-
 tion. RI 3248
 yield point, measurement by eykometer. RI 3495
 Clay testing, syllabus of. B 451, 565
 Clay wares, casting. TP 126; DAE 1924
 Clayburg-Redford magnetite district, N.Y.,
 diamond drilling. RI 4447
 Claycraft Co., Ohio, shale pit, grinding methods
 and costs. IC 6686
 Cleaning plants, coal-dust explosions in, preven-
 tion. IC 6996
 coal dust in, allaying. IC 7248
 Clear Creek County, Colo., iron ore, reconnais-
 sance. IC 7918
 Clearance spaces, for travel, in coal mines, Mine
 Safety Board decisions. IC 6732, 6946
 Clearfield County, Pa., coal, analyses. RI 5166
 preparation characteristics. RI 4994
 study. IC 7668
 coking coal, reserves, estimate. RI 5166
 Cle Elum deposits, Wash., iron-nickel, explora-
 tion. RI 4189
 Cle Elum nickel ore, Wash., smelting tests, con-
 tinuous selective reduction. RI 5021
 partial reduction, results. RI 4122

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Clement-Fraser apparatus, for testing flammability of dust B 365
 Clemmons Hills property, Ga., limonite ore, exploration RI 4178
 Cleveland, Ohio, gas holders, dismantling RI 3337
 liquefied natural-gas plant fire, investigation RI 3867, 4031
 Cleveland-Cliffs Iron Co., Mich., Cambria-Jackson iron mine, tungsten carbide insert bits, use IC 7558
 Cliffs Shaft iron mine, rock, physical and petrographic properties RI 4459, 4727
 tungsten carbide insert and steel detachable bits, use IC 7558
 Mather "A" shaft iron mine, tungsten carbide insert bits, use IC 7558
 Mather mine B shaft, central mine rescue station, description IC 7702
 equipment IC 7702
 underground training facilities IC 7702
 Mather "B" shaft iron mine, tungsten carbide insert bits, use IC 7558
 Clevenger reducing furnace, for ores B 226
 Olivine, thermal analysis RI 3737
 Cliffs Shaft iron mine, Cleveland-Cliffs Iron Co., Mich., rock, physical and petrographic properties RI 4459, 4727
 tungsten carbide insert and steel detachable bits, use IC 7558
 Climax-Brundred Water Flood Division, Lowery flood, Delaware-Childers oil field, Okla., discussion RI 5134
 Climax limestone deposit, Wash., investigation RI 4510
 Climax Molybdenum Co., Climax-Brundred Water Flood Division, Lowery flood, Delaware-Childers oil field, Okla., discussion RI 5134
 Climax Uranium Co., Salt Wash uranium mine, Ariz., underground mining methods IC 7908
 Colo., underground mining methods IC 7908
 Clinchfield No. 2 mine, Va., coal, washing characteristics RI 5405
 Clinchfield No. 9 mine, Va., coal, carbonizing properties and petrography TP 584
 Clinchfield No. 58 mine, Va., coal, washing characteristics RI 5405
 Oline mine, N.C., copper, exploration RI 3873, 4203
 tungsten, exploration RI 4203
 Clinker, cement, calcium sulfate retarders TP 451
 formation, relation to fusibility of coal ash B 364; CIT 29
 in boiler furnace, study RI 2680
 Clinkering, effect of treatment of fuels on B 404
 Clinchlore, properties IC 6205
 Clinton formation, Ala., iron ores, character TP 377
 treatment B 110; RI 3229
 Clinton Jackson quartz crystal deposits, Va., investigation RI 4630
 Clinton sand, Appalachian oil field, Ohio, core properties and interstitial water data RI 5438
 Clintwood bed, coal, carbonizing properties TP 570
 carbonizing tests RI 3695
 petrography TP 570
 washing characteristics RI 5391, 5405
 Close-in claim, Utah, alunite deposit, exploration RI 3972
 Closeplint mine, Ky., coal, carbonizing properties and petrography TP 599
 Clothing, protective, for miners OMC; IC 6724
 Cloverleaf "A" mine, Pa., coal, washing characteristics RI 4894
 Clowdy plant, Dallas Washed & Screened Gravel Co., Tex., mining methods and costs IC 6581

R Revised.

Clum fluorspar mine, N. Mex., mining methods NMM
 Clymer No. 2 mine, Pa., coal, washing characteristics RI 4763
 Coal, absorption of gases B 26,
 29, 72; TP 2, 98, 140, 147
 activated carbon from, production TP 479
 agglomerating index TP 8R; RI 3424
 determination B 492
 agglutinating value TP 512
 Bureau of Mines method TP 524
 determination B 492
 Marshall-Bird test B 336; RI 3011
 test CIT 60
 American, application of international classification of hard coals to RI 5435
 carbonizing properties, Bureau of Mines survey, bibliography B 536
 index B 536; TP 637; RI 3760
 determining, by BM-AGA method TP 685
 studies IC 7352, 7446
 export trade B 76, 344
 heating values, average IC 7538
 mineral matter in, determination, by acid-extraction method, evaluation RI 5470
 petrography B 550
 properties B 344
 tested in sole-heated oven, expanding properties RI 5537
 analyses B 5,
 22, 85, 119, 123, 344, 411, 446, 474, 499, 516,
 567, 572; TP 269, 308, 344, 347, 356, 365, 366,
 405, 411, 416, 417, 455, 465, 484, 491, 512, 519,
 524, 529, 531, 542, 543, 548, 562, 569-572, 574,
 584, 594-596, 599, 601, 616, 618, 626, 628, 630,
 634, 641, 644, 649, 652, 656, 659, 667, 670-673,
 682, 696, 697, 699, 700, 702, 703, 706; DB 6,
 7; M 5; RI 3170, 3200, 3599, 3760, 4030, 4526,
 4814, 4934, 4972, 5009, 5029, 5037, 5068, 5077,
 5083, 5085, 5109, 5131, 5136, 5143, 5148, 5159,
 5160, 5166, 5171, 5185, 5207, 5208, 5221, 5229,
 5231-5233, 5235, 5258, 5259, 5266, 5267, 5270,
 5332, 5401, 5434, 5475, 5489, 5492; BCC 1-5;
 OGM 20.
 bibliographies B 22, 85, 119, 123, 193
 calculation B 492
 chemical B 550
 comparison RI 2432
 correlation with carbonization products RI 3482
 errors B 28; TP 93, 171
 fees S 30
 graphic studies TP 93
 methods B 492
 mine samples B 22,
 85, 123, 193, 499, 516, 572; TP 269, 308, 344,
 345, 347, 356, 365, 366, 405, 411, 416, 417, 455,
 465, 484, 491, 512, 529, 569, 574, 590, 618, 626,
 641, 652, 656, 659, 671, 682, 696, 700, 706.
 petrologic IC 7417
 procedures, new, studies IC 7904, 7905
 study IC 7904
 review IC 6992, 7052, 7105, 7143, 7190, 7322
 solvent, significance IC 6486
 analyzing B 22,
 28, 41, 85, 123, 193; TP 8R, 64, 76, 91, 171,
 586; RI 2096.
 investigations, bibliographies TP 498,
 576, 639, 698
 annual data MR 1924-31;
 MY 1932-51, 1952 (vol. II)-1958 (vol. II);
 MYA 1932-35.
 as buttress, strength B 345
 as domestic fuel, tests B 276
 as furnace fuel, combustion tests B 135
 as gas-producer fuel B 4,
 9, 13, 55, 109; TP 9, 55, 123

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal, as source of carbon, in aluminum production, investigation..... RI 5191
as source of fuel and power, comparison with petroleum, natural gas, and electricity..... IC 7189
as source of synthetic rubber..... IC 7242
as water-gas fuel..... B 203; TP 274, 284, 335
ash content, determination..... B 492
variability..... B 454
ash-forming constituents..... B 129
ash-fusion temperature, relationship to coke..... RI 3505
auger mining, study..... IC 7904
surface, safety standards, recommendations..... IC 7845
available for export, discussion..... B 76
ball-mill grindability indexes..... RI 3409
bearing strength..... TP 527; DAR 1932
bins, temperatures..... RI 3759
biochemical changes..... B 38
blasting, efficiency..... CIT 11
blending properties..... IC 7241
breaking, with Airdox..... IC 7480
briquetting, bibliography..... IC 7469
patents..... IC 7469
research..... IC 7663
tests..... B 30, 58
broken, size distribution, Rosin-Rammler equation, applying graphic form..... IC 7846
B.t.u. values..... IC 7193
average..... IC 7538
Bureau of Mines exploration projects, war..... RI 3801
burning, in down-draft ceramic kilns..... TP 598
information..... CFH; HFH
on anthracite stoker..... RI 3849
on ash-removal-type underfeed stoker..... B 475
on clinker-type underfeed stoker..... B 475
on domestic overfeed stoker..... B 475; RI 3379
results, comparison with results by hand and oil firing..... B 475
sulfur problems..... TP 436
byproducts..... B 114; TP 89, 242, 266
byproduct coke-oven tests..... RI 3717; IC 7322
byproduct-making properties, determining..... B 336; M 5
methods..... B 344
calorific value, determination..... B 223; TP 8R
procedure..... B 492
investigations, bibliographies..... TP 639, 698
carbon dioxide in, determination..... B 492
occurrence..... RI 3233
carbon in, determination..... B 492
carbonaceous cation exchangers from..... RI 3559
carbonization..... RI 4552
ammonium sulfate from, yields..... RI 4526; IC 7618
bibliographies..... TP 120; IC 7304
BM-AGA and slot-oven methods, comparison..... B 480
BM-AGA test data, correlation with industrial coking operations data..... RI 5467
duplicability..... RI 5467
coal tar from, phenol and cresol contents..... RI 4755
developments..... TP 613
effect of blending..... RI 5110
effect of charge density..... RI 5110
effect of temperature..... RI 5110
high temperature..... MY 1984-37
in gas retorts..... IIG 20
low temperature..... TP 896, 512; MY 1984-37; RI 5123; IC 7352; CIT 8
investigation..... B 496
light oils from..... CIT 31
tar from, composition..... CIT 35, 41, 54
mechanism and kinetics, studies..... IC 7794
pretreatment, effects, study..... IC 7904

Coal, carbonization, research..... IC 7867
studies..... IC 7822
tests..... RI 3671, 3695, 3760
results..... IC 7052, 7518
volatile products..... B 1; TP 140
carbonization assays..... TP 611
high-temperature, tests, results..... RI 5383
low-temperature..... B 571
apparatus..... B 580
modifications..... RI 5383
test..... B 580
results..... RI 5383
medium-temperature, tests, results..... RI 5383
carbonization products, effect of acids and alkalis..... RI 3726; IC 7822
carbonizing methods..... RI 5123
carbonizing properties..... B 344, 411, 474, 493, 496, 500, 501, 506, 510, 511, 522, 523; TP 511, 512, 519, 524, 525, 531, 542, 543, 548, 562, 564, 570-572, 584, 594-596, 599, 601, 604, 616, 621, 623, 630, 634, 644, 649, 650, 655, 667, 670, 672, 683, 691, 692, 695, 697, 703, 711, 712, 720, 721, 726; M 5; RI 3749, 5029, 5101, 5131, 5136, 5159, 5185, 5229, 5257, 5258, 5269, 5314, 5359, 5374, 5399, 5432, 5453, 5455, 5524; OGS 12, 15.
determination, standard procedures, development..... RI 5011
Oyón region, Peru..... RI 4222
surveys..... IC 6992, 7052, 7105, 7143, 7190, 7272, 7322, 7352, 7417, 7446, 7518, 7565, 7618, 7647, 7663, 7669, 7753, 7794, 7904, 7905.
carbonizing tests..... TP 702; RI 3695, 3760
in sole-heated oven, results..... RI 5307
in Tuscaloosa oven, results..... RI 5125, 5307, 5479
review..... IC 7272, 7417
charged to coke ovens, effect of compression..... IC 7322
chemical elements..... FC
bibliography..... TP 609
rare..... TP 609
chemical study..... IIG 8
chemical tests, relation to byproduct yields..... M 5
relation to coking properties..... M 5
chemistry of..... B 556; FC
chlorine in, determination, studies..... IC 7665, 7904
classification..... B 22, 29, 85, 123, 193; MY 1984-37; IC 6094
by rank..... B 556
by type..... B 550
by ultimate analysis..... TP 98
charts..... RI 3296B
curves..... IC 6933
cleaning, at truck mines, small jigs for..... RI 3718
by Trent process, comparison with float-and-sink methods..... RI 3781
dense-medium processes, study..... IC 7690
mechanical..... IC 7822
studies..... RI 2263, 3020; IC 7352, 7904, 7905
using magnetite as dense medium, pilot-plant-performance tests..... RI 5212
using pulverized coal-shale refuse as dense medium, pilot-plant-performance tests..... RI 5212
clinker in, bibliography..... B 129
effect on fuel value..... B 63
factors governing..... B 123
formation..... B 364; CIT 29
in gas producers..... B 18; TP 20
in steaming tests..... B 23; TP 187, 189
in water-gas generator..... TP 274
coarse, tests, by float-and-sink method..... RI 2670
coke from..... IC 7659

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal, coke-making properties, determining, methods B 344; M 5
 coking, conversion, from noncoking coals B 505
 expansion, effect of anthraflines RI 5176
 investigations, annual review DAR 1950-53
 reserves, estimate B 556;
 RI 4734, 4757, 4792, 4801, 4803, 4807, 4813, 4840,
 4893, 4907, 4924, 4966, 4970, 4998, 5003, 5016,
 5029, 5037, 5068, 5077, 5083, 5109, 5131, 5136,
 5143, 5148, 5159, 5160, 5166, 5171, 5185, 5207,
 5208, 5229, 5231-5235, 5258, 5259, 5263, 5266,
 5267.
 investigations, annual review DAR 1950-53
 studies IC 7322,
 7352, 7419, 7565, 7647, 7663, 7699, 7756, 7794,
 7904.
 supplies TP 50
 utilizing lower grade, research IC 7559
 coking power, durability IC 7417
 coking properties B 496; TP 673; RI 4814
 constituents affecting B 29
 effect of inerts CIT 57
 effect of resins IC 7322
 effect of washing RI 3114
 modification B 445
 coking tests B 5,
 188, 336, 344; M 5; RI 2278, 3599, 3717; BS
 results, review IC 7699
 column samples, preparation for examina-
 tion IC 7021
 combustion, American Society for Testing Ma-
 terials, laboratory tests, significance IC 7619
 developments TP 613
 investigations, bibliographies B 528; TP 639, 698
 spontaneous TP 16,
 65, 170, 172, 235, 311, 326, 409; IC 7074, 7235
 studies IC 7241
 comparison of sink-float and batch jig data RI 3769
 composition B 38,
 117, 340; TP 2, 5, 93, 113, 140, 183, 195; CFH;
 IC 6212.
 effect of oxidation B 455; RI 3398
 research on IC 6992,
 7062, 7105, 7143, 7190, 7272, 7352, 7417, 7446,
 7904, 7905.
 compressibility TP 527
 concentration RI 2669R
 by agglomeration RI 2669R
 constituents, investigations, results IC 6992
 soluble in phenol TP 5
 constitution, bibliography IC 6212
 chemical IC 6212
 consumption, reduction, in plants, quiz sheets B 466
 Cretaceous, hydrogenation and petrography
 RI 3498
 dedusting, by oil-treating process, explosion
 hazards RI 3383
 delivered, analyses B 11,
 13, 23, 41, 58, 119, 230, 499, 516, 572; TP
 269, 308, 344, 345, 347, 356, 365, 366, 405,
 411, 416, 417, 455, 465, 484, 491, 512, 529,
 569, 574, 590, 618, 626, 641, 652, 656, 659,
 671, 682, 696, 700, 706; RI 4934, 4972, 5058,
 5085, 5221, 5332, 5401, 5489.
 sampling B 11, 63, 116, 230; TP 133R
 desulfurization, study IC 7518
 dewatering, studies RI 3427; IC 7009
 displacement, by fuel oil IC 7261
 distillation B 1, 344; TP 123, 134, 140
 distillation-assay tests, data RI 5009
 distribution, research possibilities IC 7754
 drainage characteristics RI 3473, 3563, 3599
 dropped, bulk density RI 3807
 drying, advantages IC 7009

R Revised.

Coal, drying, studies RI 3427;
 IC 7009, 7518, 7565, 7618, 7647, 7663
 dust-prevention treatment MY 1934-37
 dyeing MY 1934
 economics, investigations, bibliographies TP 639,
 698
 economy, large boiler plants TP 205, 217
 effect of temperature, catalyst, and rank on
 hydrogenation reactions TP 654
 electron-microscope studies IC 7352, 7417, 7618
 elutriation, practice RI 2669R
 equilibration tests RI 4968
 escape of gas B 29, 72; TP 2
 ethane in, occurrence RI 3233
 examination, microscopic B 117
 expanding properties, during coking, stud-
 ies IC 7518, 7565, 7618, 7647, 7663,
 7904, 7905
 expansion, during carbonization, studies IC 7699,
 7756, 7794
 during coking RI 3451, 3644
 with sole-heated oven, studies RI 5464
 expansion tests, in sole-heated oven, re-
 sults RI 5295
 extraction, by aromatic compounds, atmos-
 pheric pressure RI 4662
 Pott-Broche process, Germany IC 7420
 with phenanthrene B 505
 with polynuclear compounds B 505
 falls, accidents MC 9
 prevention CMC;
 CMH; CMM; MC 48R; IC 7461, 7471
 dangers IC 6035
 factors affecting MC 48R; IC 6093
 prevention, supervision to avoid IC 6434
 studies TP 520,
 522, 534, 541, 547, 550; MC 22; RI 3110, 3188,
 3189, 3199, 3207; IC 6617, 6782.
 fine, carbonization, in entrained and fluidized
 state, work on IC 7663
 cleaning, by flotation IC 6714
 with feldspar jig, investigation RI 5412
 cleaning and dewatering, research IC 7699
 cleaning and dewatering in one operation
 by kerosine-flotation process, descrip-
 tion RI 4306, 4707
 cleaning and recovery, study IC 7647
 drying and carbonizing, in entrained and
 fluidized state RI 4954
 Bureau of Mines development work,
 review RI 5123
 recovery from slurry water IC 7446
 table cleaning RI 3234
 fineness, effect on flammability of dust B 389
 firing, in boiler furnaces B 23,
 40; TP 34, 80, 180; RI 2323
 fixed carbon, determination B 492
 flakiness, tests RI 3067, 3170
 float-and-sink data B 495; RI 4747, 4763,
 4783, 4815, 4823, 4834, 4894, 4910, 4920, 4941,
 4993, 5070, 5094, 5112, 5135, 5140, 5230, 5278,
 5306, 5357, 5358, 5391, 5405, 5434, 5475, 5492
 interpreting, by washability curves IC 7045
 float-and-sink tests B 5, 28, 364; TP 361; RI 2570,
 2586, 3012, 3014, 3067, 3083, 3101, 3165, 3170,
 3200, 3204, 3206, 3209, 3234, 3315, WCM 46
 flotation RI 3397
 patents IC 6714
 flotation tests, results RI 5397
 fluid fuels from, work on DAR 1956
 for barricades, use MC 25
 for electrodes, research IC 7699
 for househeating B 27; TP 199; HFH
 for making illuminating gas B 6R
 for synthetic liquid fuels, preparation charac-
 teristics B 495

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Coal, foreign, analyses..... B 474, 512; RI 2708
production, 1943-50..... B 512
forms, resins, information..... TP 680
formation..... B 28, 38, 117; IC 7397
bibliography..... B 38
free-swelling index, determination..... B 492
laboratory test..... RI 3989, 4238; IC 7417
relation to coking characteristics on fuel
beds..... RI 4238
relation to expansion, in experimental coke
ovens..... RI 4238
tests, results..... IC 7565
friability..... TP 512; RI 3215, 3384, 3427
froth flotation..... RI 3263
fusain in, occurrence..... IC 6115
gas from, purification, work on..... RI 5236
gas-making properties, determining, meth-
ods..... B 344; M 5
gas-producer tests..... B 13
gasification, bibliography..... RI 4926
by nuclear heat, study..... RI 5236
developments..... TP 613
in atmospheric-pressure plants, tests, re-
sults..... RI 5236
in high-pressure gasification pilot plant,
tests..... RI 5118
investigations, bibliographies..... B 528; TP 639,
698; IC 7825
Lurgi process, with steam and oxygen under
pressure..... B 498
study..... IC 7647
research..... RI 5506; IC 7367
studies..... IC 7822,
7518, 7565, 7618, 7647, 7663, 7699, 7756, 7794,
7904, 7905.
underground, experiment..... RI 4908
results..... RI 4164
operations..... RI 5043, 5118, 5236
research..... RI 5506
results..... RI 4164
roof rock, test..... RI 4164
tests, applying electrolinking-carboniza-
tion method..... RI 5367
work on..... RI 4965, 4942
using nuclear process heat..... IC 7920
with oxygen, advantages..... RI 4775
work on..... RI 4770, 4965, 4942
Germany, wartime utilization, Technical In-
dustrial Intelligence Committee, stud-
ies..... IC 7417
Government purchases, specifications..... B 11,
41, 63, 116, 119, 230
grindability..... RI 3239,
3301, 3382, 3409, 3427
handling hazards, from static electricity..... B 368
hard, international classification, application
to American coals..... RI 5435
study..... IC 7905
by type..... IC 7904
system, proposal..... IC 7699
review..... RI 5435
haulage, with permissible storage-battery loco-
motives..... RI 3051
heating, spontaneous, cause..... TP 681
heating tendencies, spontaneous..... TP 681
heating value..... B 22,
23, 29, 58, 85, 119, 123, 193; TP 197
deterioration in storage..... B 186; TP 16
determining..... B 11, 22, 85, 119, 123, 193
effect of ash..... B 11, 23, 29, 41, 63
relation to ultimate analysis..... TP 93
high-ash, in producer-gas plants..... TP 123
Coal, high-sulfur, as water-gas fuel..... TP 284
investigation..... RI 5362
upgrading..... B 483
washing characteristics..... TP 689
hindered-settling classifier..... B 337
hydrogen in, determination..... B 492
effect of low-temperature oxidation..... TP 98
organic, determination..... TP 212
hydrogen-oxygen ratio..... B 29
hydrogen-volatile matter ratio..... TP 197
hydrogenation..... TP 654, 690; IC 7241, 7417, 7518
assay oils..... TP 646
batch, description..... TP 666
bibliography..... IC 7304
Billingham process, description..... TP 666
Bureau of Mines research, bibliography..... TP 666
history..... TP 666
continuous, description..... TP 666
developments..... TP 613
direct, description..... TP 666
effect of petrography and rank..... TP 642
experimental plant, description..... TP 622
improvements..... IC 7493
investigations..... TP 622,
639; IC 6992, 7052, 7105, 7143, 7190; PSC 26,
28.
bibliographies..... TP 639, 696
kinetics of..... IC 7663
studies..... RI 4546
liquid fuels by, synthesis..... RI 5118
process development..... RI 5043, 5236
research..... IC 7794
literature, review..... TP 622
low-pressure, in fluidized state, agglomera-
tion studies..... B 579
low-rank..... RI 3498
oils produced, characteristics..... TP 622
pressure, bibliography..... B 485
index..... B 483 (pt. 3)
patents, foreign..... B 485 (pt. 2)
index..... B 485 (pt. 3)
United States..... B 485 (pt. 2)
index..... B 485 (pt. 3)
review of literature..... B 485 (pt. 1)
processes, mechanism..... IC 7822
products..... RI 4467
nature..... TP 642
production of gasoline by, plant and operat-
ing costs, estimate..... RI 4564
production of heavy fuel oil, cost..... RI 4418
reactions..... IC 7832
effect of temperature, catalyst, and rank
on..... TP 654
research..... RI 5506
progress..... MY 1935-37
synthetic liquid fuels by, research and de-
velopment..... IC 7647, 7663, 7699, 7756, 7904
vapor-phase, operations, coal-hydrogenation
demonstration plant, Louisiana, Mo. RI 5043
hydrogenation tests..... IC 7272
igniting, by electric circuits, hazards..... TP 568
illuminating-gas tests..... B 6R
in boiler furnaces, clinkering..... RI 2630
smokeless combustion..... B 40
international aspects, economic study..... McG-H
investigations..... B 141, 175; TP 511, 512; IC 6860
bibliographies..... B 528;
TP 493, 576, 639, 696; IC 7325
review..... DAR 1911-21,
1923-58; RI 8538, 8599; IC 6992, 7062, 7105,
7143, 7190, 7518, 7565, 7618, 7663, 7699, 7756
kerosine flotation of..... RI 5528
light oil, yield..... IC 7322

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Coal, liquefaction..... TP 654, 690; IC 7241
 assay oils..... TP 648
 by direct hydrogenation, research and development..... IC 7585, 7618
 by hydrogenation of carbon monoxide, research and development..... IC 7585, 7618
 developments..... TP 613
 effect of petrography and rank..... TP 642
 investigations..... TP 622
 research..... IC 7417
 bibliography..... TP 686
 history..... TP 686
 review of literature..... IC 7352
 tests..... IC 7272
 liquid fuel from, Bureau of Mines investigations, bibliographies..... IO 7304, 7534
 losses..... B 29; RI 2287; ALC; IGC; OHC; TEN
 loss of heating value on air-drying, tests..... RI 4197
 low- and high-volatile, carbonizing tests, results..... RI 5307
 low-ash, Appalachian, coke from, for carbon electrodes for aluminum industry..... RI 3731
 preparation..... IC 7352
 low-grade, utilization, research..... IC 7699
 low-rank, drying, research..... IC 7699
 hydrogenation and petrography..... RI 3498
 moisture in, determination, methods..... RI 4969
 storage, surface, methods..... RI 5034
 low sulfur, manufacture of retort gas from..... IIG 21
 mines producing..... IIG 23
 low-temperature carbonization, processes, description..... IC 7430
 low-volatile, blending properties, tests in
 BM-AGA apparatus..... RI 3936
 carbonizing properties..... RI 4222
 lump, production..... RI 2697; CIT 11, 19
 markets, new, research possibilities..... IC 7754
 mechanical loading..... IC 7485
 medium-volatile, blending properties, tests in
 BM-AGA apparatus..... RI 3936
 carbonizing properties..... RI 3749
 metallurgical, control of sulfur and ash..... IC 7272, 7322
 mine-run, control of sulfur and ash..... RI 3742
 metamorphism, regional..... B 38
 methane in, occurrence..... RI 3233
 microscopy..... B 38; TP 506, 564; CIT 2
 microstructure, investigations, bibliographies..... TP 639, 698
 mine samples, description..... B 22, 85, 123, 193, 499, 516, 572; TP 344, 345, 347, 356, 365, 366, 405, 411, 416, 417, 465, 484, 491, 529, 569, 574, 590, 618, 626, 641, 652, 656, 659, 671, 682, 696, 700, 708.
 mineral constituents, common..... TP 669
 mineral matter, discussion..... TP 648
 mining, by stripping methods, description..... IC 6383
 hazards from static electricity..... B 368
 hydraulic methods, New Zealand, literature survey..... IC 7887
 U.S.S.R., literature survey..... IC 7887
 investigations, bibliography..... IC 7825
 methods..... B 556; FC; IC 6119, 6151, 6152, 6928
 methods and practices, studies..... IC 7352, 7447, 7518, 7565, 7618, 7646, 7663
 research..... IC 7367
 studies..... IC 7261
 moisture, determination..... B 11, 22, 85, 123, 193, 492; TP 8R, 113, 140
 Brabender semiautomatic tester, tests..... RI 4304
 effect, in steaming tests..... B 23
 on combustion..... B 11, 23, 27; TP 16
 on heating value..... B 63; TP 197
 on spontaneous heating..... TP 16, 172
 on weight..... B 23; TP 172
- Coal, moisture, loss, in samples..... B 28
 vapor pressure..... TP 113
 moisture-holding capacity, determination, by equilibration methods, recommended procedure..... RI 4968
 for classification by rank..... RI 4968
 review..... IC 7699
 more effective use, Swiss developments..... IC 7403
 motor fuel from..... MY 1935-37; IC 6075
 nitrogen in, determination..... TP 64
 by Kjeldahl-Gunning method..... B 492
 noncoking, carbonization, low-temperature, reviews..... IC 7618, 7647, 7663
 conversion to coking coals..... B 505
 volatile matter, determining..... RI 3168
 oils from, studies..... B 415; RI 2832
 100-mile pipeline for transporting, construction and operating costs, estimates..... RI 4799
 organic carbon in, determination..... TP 212
 origin..... B 556; FC
 investigation, bibliographies..... TP 639, 698
 research on..... IC 7352, 7417, 7446, 7904, 7905
 studies..... B 38, 117
 output per miner..... RI 2145
 oxidation, investigation..... B 498
 studies..... B 340; TP 35, 65, 98
 oxidizing agents, chemical..... B 340
 oxidizing tendency..... TP 409
 oxygen in, determination..... B 492
 effect..... B 29
 paleobotany, study..... TP 631
 particle-size distribution..... RI 3427
 petrography..... B 344, 411; TP 511, 519, 524, 525, 531, 542, 543, 548, 562, 564, 570-573, 584, 594-596, 599, 601, 604, 616, 621, 628, 630, 634, 644, 649, 650, 653, 667, 672; M 5; RI 5493.
 studies..... IC 7446, 7518, 7565, 7618, 7647, 7663, 7699, 7756, 7794, 7904, 7905.
 physical tests, relation to byproduct yields..... M 5
 relation to coking properties..... M 5
 phosphorus in, determination, methods..... B 492
 pilot-plant tests, results..... RI 4954
 plasticity, studies..... IC 7322, 7352, 7417, 7446, 7518, 7565, 7618, 7647
 pneumatic tabling..... TP 536
 pore structure, study..... IC 7904
 powdered, analyses..... RI 2545
 as boiler fuel, tests..... B 217, 223, 237; TP 316; RI 2438
 as power-plant fuel, tests..... B 223, 237
 combustion..... RI 2470
 consumption, reduction in plants, quiz sheets..... B 466
 costs..... B 217
 explosion hazards, at industrial plants..... B 217, 242; RI 2242
 fineness, determination..... RI 2545
 ignitibility, in air..... CIT 50
 preparation..... B 217
 self heating, temperatures for..... RI 2960
 size classification, by air currents..... CIT 12
 uses..... B 217
 See also Coal, pulverized.
 precision jigging..... IC 7352
 preheating, effect on carbonizing properties..... RI 5418
 preparation..... FC
 comparison of German and American practices..... IC 7446
 developments, annual review..... MY 1932-37, 1949-53
 for coking..... TP 50
 in Northwest..... RI 2669R
 in western Germany, practice..... IC 7389
 investigations..... TP 613, 641, 652, 656, 659, 671

R. Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal, preparation, methods----- TP 626,
641, 652, 656, 659, 671; WPA 9
bibliographies----- TP 639, 698
research----- IC 7367
studies----- IC 6992,
7052, 7105, 7143, 7190, 7241, 7261, 7322, 7352,
7417, 7446, 7756.
preparation characteristics----- TP 701,
724; RI 4747, 4763, 4788, 4815, 4823, 4834, 4894,
4910, 4920, 4941, 4993, 5029, 5070, 5094, 5112,
5131, 5135, 5136, 5140, 5159, 5185, 5208, 5229,
5230, 5232, 5235, 5258, 5263, 5266, 5278, 5306,
5357, 5358, 5391, 5405, 5434, 5475, 5492.
investigations, bibliographies----- IC 7825
studies----- IC 7518, 7647, 7663, 7699, 7794, 7904, 7905
production, methods, research possibilities----- IC 7754
studies, annual review----- DAR 1944, 1945
underground----- WPA 3
Washington----- B 572
production of synthesis gas from, processes,
development----- RI 5043, 5118
research----- IC 7794
production of synthetic liquid fuels from, Bu-
reau of Mines research----- RI 5506
Fischer-Tropsch process, research, Japan
IC 7594
investigations, bibliographies----- B 528; IC 7825
progress----- RI 4456,
4651, 4770, 4942, 5043, 5118, 5236
properties, research on----- TP 613;
IC 6992, 7052, 7105, 7143, 7190, 7241, 7272,
7352, 7367, 7417, 7446, 7904, 7905.
pulverized, entrained in oxygen and steam,
pilot-plant gasification, at atmospheric
pressure, investigation----- RI 5030
gasification, by pebble heater, operation----- RI 4781
pilot-plant gasification, with oxygen and
steam----- RI 4733
research----- RI 4770, 4865, 4942
studies----- IC 7565, 7618, 7647, 7663, 7904, 7905
See also Coal, powdered.
"pure," B.t.u. value, constancy----- RI 3572
purification, research----- RI 5506
recovery, from washery refuse----- RI 5152
reducing, for sponge iron manufacture----- RI 3822
refuse, separation----- RI 2950
removal of phosphorus----- IC 7272
research, activities----- NC 1, 2
annual review----- DAR 1956-58
Bureau of Mines investigations----- TP 613;
DAR 1932-48; IC 6992, 7052, 7105, 7143, 7190,
7241, 7242, 7322, 7352, 7367, 7417, 7446.
German----- IC 7422
industrial, review----- IC 6837
terminology, correlation----- TP 446
research and technologic work, annual reports
IC 6992, 7052, 7105, 7143, 7190, 7241, 7272,
7322, 7352, 7417, 7446, 7518, 7565, 7618, 7647,
7663, 7669, 7756, 7794, 7904, 7905.
reserves, estimate----- B 507, 556; TP 719; IC 7754
summary----- WPA 9
resins, forms----- TP 680
resources----- GS 3
run-of-mine, as locomotive boiler fuel----- B 34, 37
as torpedo-boat fuel----- B 33, 37
salvage, from mine refuse----- RI 3768
using pulverized rock as dense me-
dium----- RI 5184
sampling, for shipment or delivery----- B 11,
63, 116, 230; TP 133R
fundamentals----- B 454; IC 7322
in mines----- B 344; TP 1, 76; IC 6545
investigations, bibliographies----- TP 639, 698
methods----- TP 596; CSH
moisture losses----- RI 3670
random, theory----- B 454

Coal, saving, at boiler plants----- TP 205
in steam power plants----- TP 217
screen-sizing tests----- B 224;
RI 3012, 3014, 3067, 3165, 3170, 3200, 3204,
3206, 3209, 3234, 3315.
screening, Rosin-Rammler law----- RI 3732; IC 7322
separating refuse from, role of stratification
in----- RI 2950
size, relation to oxidation products----- B 455
slacking properties, study----- TP 512; RI 3055
small pillars, strength----- RI 3575
smoke, boiler furnaces----- B 13, 27, 37, 39, 40
soft. *See* Bituminous coal.
softening properties----- M 5
specific gravity, apparent, determination----- B 492
studies----- B 28; TP 8R; ALA 2
true, determination----- B 492
specific resistance----- TP 568
splint. *See* Splint coals.
spontaneous heating----- TP 16,
65, 170, 172, 235, 311, 326, 409
statistics, investigations, bibliographies----- TP 639,
698
steaming tests, results----- B 23,
27, 33, 34, 37, 237; TP 63, 240, 308, 367
stoker tests, results----- IC 7417
storage----- IC 7235
advantages----- IC 7214
instructions----- IC 7211
requirements----- IC 7446
safe----- B 136; TP 16, 172, 235, 326; RI 2109
satisfactory method----- IC 7235
studies----- IC 7190,
7241, 7322, 7352, 7417, 7518, 7565, 7618, 7904,
7905.
stored, characteristics, changes----- IC 7235
deterioration----- B 136; TP 16
effect on caking and coking properties----- IC 7272
heating, effect of moisture----- TP 172
prevention----- TP 235
study----- TP 170
loss of heating value----- IC 7235
oxygen, diffusion----- TP 170
slacking----- IC 7235
spontaneous combustion----- IC 7235
spontaneous heating----- IC 7272, 7322
strip mines, inspection standards----- IC 7850
strip mining----- IC 7322
stripping, costs----- B 298
economics----- EP 11; IIG 28
for reclaiming land----- RI 3440
methods----- B 298
sulfur content, determination, by bomb-wash-
ing method----- B 492
by Eschka method----- B 492
reduction----- RI 3263
sulfur forms, analysis----- TP 254; RI 2096
determination----- B 364
problem----- TP 496
surface moisture, determining----- RI 3811; IC 7352
swelling properties----- M 5
in coking----- RI 8408; IC 7322, 7352, 7417
synthetic liquid fuels from, research----- IC 7367
tabling, stratification, role----- RI 2950
tars, combustion----- TP 195
yield----- IC 7322
terminology----- TP 446
thin sections, preparation----- IC 7021
tipple, analyses----- B 499, 516, 572;
TP 626, 641, 652, 671, 682, 696, 706; RI 4934,
4972, 5058, 5065, 5221, 5332, 5401, 5489.
transformation from peat----- IC 7397
transportation, hydraulic, feasibility----- IC 7663
history----- RI 4790
survey----- RI 4790

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal, transportation, hydraulic methods, New Zealand, literature survey.....	IC 7887
U.S.S.R., literature survey.....	IC 7887
underground, studies.....	RI 3519, 3577
treated with chemicals, burning.....	B 404
Trent process.....	IC 6714
types.....	TP 642; CFH; HFH
ultra-clean, production for electrode carbon, Germany, methods.....	IC 7481
study.....	IC 7565
use.....	FC
developments.....	TP 613
annual reviews.....	MY 1932-37
for combustion, studies.....	IC 7756, 7794
fuel efficiency, increase.....	IC 6261
studies.....	IC 7241, 7322, 7352, 7417, 7446
varieties.....	FC
volatile matter, combustion.....	B 1, 23, 33, 39, 40, 185; TP 63, 80, 183, 195, 219
determination.....	B 492
study.....	IC 7904
washability, examination.....	B 5, 28, 300, 337; TP 361; RI 3012, 3014, 3020, 3067, 3083, 3111, 3157, 3165, 3170, 3200, 3204, 3206, 3315, 3449, 3450, 3458, 4160, 5103, 5123, 5184, 5393; CIT 16
washery refuse, as gas-producer fuel.....	B 13
washing, advantages.....	B 300
difficulty, relation of specific gravity constant.....	RI 3812
effect on byproduct yields.....	RI 3029
effect on gas yields.....	RI 3020
effect on properties of coke.....	RI 3020
investigations, review.....	IC 6992, 7052, 7105, 7143, 7190
problems.....	RI 3473
processes.....	B 300
publications.....	IC 7531
studies.....	IC 7322, 7518, 7565, 7618, 7647, 7663, 7699, 7756, 7794
tests, results, appraisal.....	RI 5153
washing characteristics.....	TP 701, 719, 724; RI 3209, 3234, 3340, 4596, 4747, 4763, 4789, 4815, 4823, 4834, 4894, 4910, 4920, 4941, 4964, 4998, 5029, 5070, 5094, 5112, 5116, 5131, 5135, 5136, 5140, 5159, 5185, 5208, 5229, 5230, 5232, 5235, 5258, 5263, 5266, 5278, 5306, 5335, 5357, 5358, 5391, 5405, 5434, 5475, 5492; CIT 16
washing tests.....	RI 5397
results, appraisal.....	RI 5153
waste, recovery.....	IC 7352
reduction.....	B 47
water in, properties.....	TP 113
weathering, effects.....	B 29, 82, 136; TP 35, 63
weight, change on drying.....	TP 98
per cubic foot.....	TP 184
western, analyses.....	TP 692
carbonizing properties.....	TP 692
investigation.....	RI 4171
study.....	IC 7446
coking properties, study.....	IC 7322
plasticity.....	TP 692
storage, investigation.....	RI 4171
utilization, properties and trends.....	RI 3680
western Kentucky, data.....	IC 7417
wetting, thermal effect.....	TP 113
work of Technologic Branch, Bureau of Mines.....	IC 6935
world data, chart.....	MY 1936
Coal amalgam, Trent process, manufacture.....	RI 3397
Coal ash, analyses.....	B 344, 547; TP 8R, 76, 511, 519, 524, 525, 531, 542, 543, 548, 562, 564, 570-572, 679; M 5.
method.....	B 492
composition.....	B 567
Coal ash, from powerplants, source of germanium, study.....	B 575
fusibility.....	B 129, 209, 492; TP 8R
effect of furnace type and atmosphere.....	RI 3724
relation to clinker formation.....	B 364; CIT 29
study.....	IC 7322
fusing temperatures, investigations, bibliography.....	TP 639
fusion, bibliography.....	B 129
temperature.....	B 129
properties.....	IC 7322, 7352
relation to clinkering and slagging.....	IC 7272
Coal-ash fusion furnace, electric, check determinations in.....	RI 3003
Coal-ash slags, conductivity.....	IC 7322
flow, on furnace walls.....	TP 663
flow properties.....	TP 663
iron in, determination.....	B 492
iron oxides in, determining.....	TP 8R
thermal conductivity.....	IC 7352
viscosity, study.....	IC 7105
Coal beds, carbon dioxide in, occurrence.....	RI 3223
correlation, in Allegheny formation.....	CIT 10
in Monongahela formation.....	CIT 9
driving oil and gas wells through.....	B 65; TP 53; IC 6195
ethane in, occurrence.....	RI 3233
hydraulic fracturing, evaluation.....	RI 5236
investigation.....	B 507
metamorphism.....	B 29
methane in, occurrence.....	RI 3233
microscopy.....	TP 508
mining, development, methods.....	IC 6872
pillars, extraction.....	IC 6872
sampled, names.....	B 22, 85, 123, 193
sulfur forms in, distribution.....	IIG 125
thick, mining methods.....	IC 6376
weathering, investigation.....	TP 38
Coal briquets, as fuel, for househeating boilers, tests.....	B 27
for locomotive boilers.....	B 34, 37
for torpedo boats.....	B 33, 37
binders, tests.....	B 24
Coal-burning plants, smoke production, suggestions for abatement.....	RI 3001
Coal carbonizing, power-plant process, Helio-pore, tests.....	RI 3733; IC 7322
Coal charge, in byproduct coke ovens, control of bulk density.....	RI 3743
Coal chemicals, production, effect of use of natural gas on, study.....	IC 7579
Coal-chemical materials, annual data.....	MY 1946-51, 1952 (vol. II)-1958 (vol. II)
production, 1948-57.....	IC 7925
Coal City Basin, Ala., coal, reserves.....	TP 719
Coal-coke mixtures, as low-pressure boiler fuel, tests.....	TP 367
as water-gas generator fuel, tests.....	TP 284
Coal-column study, petrologic values, summary.....	IC 7352
Coal Creek bed, Tenn., coal, washing characteristics.....	RI 5185, 5229, 5258
coking coal, reserves, estimate.....	RI 5185, 5229, 5258
Coal Creek district, Colo., coal, carbonizing properties.....	B 501
petrography.....	B 501
coal deposits, investigation.....	RI 4104
investigation, review.....	IC 7663
Coal cutters, alternating current, safe use.....	RI 2123
permissible, description.....	B 382
lists.....	IC 6942, 7007, 7110
tests.....	B 78
safeguarding, regulations.....	RI 2419
trailing cables for, investigations.....	RI 2506

R. Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal cuttings, effect on propagation of coal-dust explosions, tests..... RI 5264

Coal-cutting and loading machine, Eickhoff-Schrämlder, description..... IC 7390

Coal deposits, Alaska, development, proposal. RI 4150

drilling records..... RI 4030

exploration..... B 501, 515; TP 719; RI 3934, 3951, 3960, 4104, 4150

review..... IC 7322, 7352, 7417

inactive, fire in, control..... IC 7932

annual review..... DAR 1950-59

control and extinguishment, methods... IC 7932

Coal Division, investigations..... DAR 1937-42

Coal drills, permissible, approved list..... IC 7283

hand-held electric, description..... RI 3363

Coal-drying plants, thermal, description..... RI 5198

explosion hazards..... RI 5198

fire hazards..... RI 5198

operating practices, safe, suggestions... RI 5198

Coal dust, airborne, reducing during mining by water infusion, effectiveness, tests, results..... RI 5353

allaying..... IC 7566

during operation of continuous-mining machines..... IC 7608

in tipples and cleaning plants..... IC 7248

amount needed, to propagate an explosion. RI 3132

analyzing..... B 82, 102, 365, 369, 389; TP 144

coking, in mine explosions..... B 20, 26, 167, 268

combustion, rate..... CIT 12, 22

control, by water infusion of coal pillars, test..... RI 4836

dangers, abatement..... MC 3

explosibility, bibliography..... TP 464

international test method..... IC 6878

investigations..... B 20, 26, 44, 56, 82, 141, 167, 217, 242, 268, 368; TP 84, 141, 366, 448; MC 21; RI 2054, 3132, 3462, 3489; IC 6112.

tests..... RI 5052

explosion hazards, at industrial plants..... B 217, 242; RI 2242

Bureau of Mines publications, bibliography..... TP 705

in mines..... IC 6112

in steel mills..... B 217, 242; RI 2242

research..... IC 7804

flammability..... B 50, 102, 365, 389; TP 141; IC 7241

flammable, momentary heating..... RI 2306

ignition, by electric arcs..... RI 2365

by permissible explosives, prevention... RI 4873

tests..... RI 4873

effect of size on pressure..... CIT 22

in excavating mine dump..... RI 2498

ignition hazard, during multiple blasting, tests, results..... RI 4875

during rock-dust distribution with permissible explosives, tests, Experimental coal mine..... RI 4688, 4793

in coal mines, sources..... TP 507

in coal-mine haulageways, Mine Safety Board decisions..... IC 6732, 6946

mine, allaying..... RI 3631

by wetting agents..... IC 7131

by wetting machine cuttings and tops of cars, Mine Safety Board decision... IC 6946

collection..... IC 7089

formation..... IC 7089

treatment..... IC 7089

origin..... MC 8

sampling..... B 26, 82, 102

sampling studies, results..... IC 7804

wetting, to prevent explosions..... TP 84

Coal dust-air mixtures, explosibility, determining..... TP 141

Coal-dust explosions, cause..... TP 448; MC 3

development, effect of released pressure... SMR 14

development and control, studies..... IC 7785

in cleaning plants, prevention..... IC 6895

in mine dump..... RI 2498

in tipples, prevention..... IC 6895

initiation, by gas explosions..... RI 3023

electrical..... RI 3044

mine, tests of salt as substitute for rock dust..... RI 8529

pressures..... TP 448

prevention..... B 277; MC 21

by "mudding"..... IC 6099

by rock dusting..... B 20, 99, 167, 225, 247, 268, 277, 353, 369; TP 58, 84, 507; MC 21, 27; DAR 1923, 1927; RI 2006, 2856, 3015, 3034, 3060, 3261, 3295; IC 6008, 6030, 6059, 6087, 6244, 6578, 6596; CIT 18, 21; SMR 13.

Mine Safety Board decisions..... IC 6091, 6126, 6198, 6732, 6946, 7109

specifications..... RI 2606

propagation, effect of coal cuttings on, tests..... RI 5264

effect of loaded mine cars in entries on, tests..... RI 5264

in mine rooms, prevention, investigation, results..... IC 7518

tests..... RI 4195

prevention, by incombustibles, tests... RI 5083

saving lives..... RI 2838

studies..... RI 4502, 4667

tests, description..... B 20, 26, 56, 82, 141, 167, 268, 369, 389; TP 448; DAR 1911-21, 1923-36; RI 3132.

in Experimental mine..... B 44, 56, 82, 167, 175, 268, 369, 389; TP 464; DAR 1911-21, 1923-41; RI 4176, 5006, 5264; IC 6257, 6755.

studies..... IC 6992, 7052, 7105, 7143, 7190, 7352, 7417, 7446

use of rock dust and water..... IC 7421

Coal-dust explosion gallery, portable, operation..... IC 7520

Coal dust-shale dust mixtures, flammability, determination..... TP 141

Coal Economics Division, investigations. DAR 1987-42

Coal-extraction plant, Germany..... IC 7420

Coal fields, description..... TP 269, 308, 344, 345, 347, 356, 366, 405, 411, 416, 417, 455, 465, 484, 491, 529, 569, 574, 623, 641, 652, 656, 659, 671, 682, 696, 700.

investigation..... RI 3784, 3951, 4520

review..... IC 7417, 7446

reconnaissance..... RI 5480

Coal fires, hydrocarbon equilibrium..... TP 183

Coal fireman, questions and answers, hand-book..... CFH

Coal formations, plants in, types..... TP 681

Coal gas, analyses..... B 1, 26, 72; TP 2, 104, 140

explosion limits..... B 15

flammability limits..... B 279R, 503

hazards..... IC 6009

iron oxide in, reduction by..... RI 2485

retort, manufacture, from low-sulfur coal... IIG 21

Coal-gas-coke-oven gas mixtures, flammability limits..... B 508

Coal-gas methane, synthetic products, developments..... TP 618

Coal-gas-methane mixtures, flammability limits..... B 279R, 503

Coal-gas-water-gas mixtures, in air, flammability limits..... B 279R, 503

Coal gasifier, powdered, steam-carbon reaction, kinetic study..... RI 5236

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal Glenn mine, Pa., coal, washing characteristics	RI 4941	Coal mines, conveyor loading, hazards	IC 6300
Coal-handling equipment, permissible, description	B 343	cooperative, description	RI 2217
Coal-Hydrogenation Demonstration Plant, Louisiana, Mo., construction, equipment used	RI 4584	dangerous practices	MC 22, 27
early operations	RI 4944	deep, roof-control practices, United Kingdom	IC 7599
improvements	IC 7603	roof-control problems, United Kingdom	IC 7599
liquid-phase processing of lignite	RI 5043	delay-action detonators in, use, hazards	IC 6147
operation	RI 5043; IC 7618, 7647	development, suggested plan, for eliminating gas-accumulation hazards	IC 7656
termination	RI 5043	diesel engines, use, study	IC 7272
processing	RI 4770, 4865, 4942	diesel locomotive, use	RI 3320
testing	IC 7565	distribution systems, adequate voltage, importance	RI 3347
vapor-phase hydrogenation of coal, operations	RI 5043	drainage	RI 3097, 3098, 3102, 3146
Coal-hydrogenation oils, phenols in, studies	IC 7647	standard practice	B 570
tar acids from, characterization	B 487	driving rock slopes	IC 6277
Coal-hydrogenation plants, engineering cost estimates	RI 4865	dust, allaying	IC 7568
Coal-hydrogenation process, description	RI 4944	control, by water infusion of coal pillars, tests	RI 4836
tetrallin, function, tests	RI 4499	dust explosions, causes, research, progress	IC 7573
Coal-hydrogenation reaction, mechanism	RI 4499	prevention, research, progress	IC 7573
Coal industry, Brazil	TP 713	dust sampling	RI 5054
technology	B 556	electric arcs in, hazards	RI 2626
Coal lands, leasing	B 36, 142, 153; DAR 1916, 1922, 1923; RI 2726, 2743, 2780.	electric arcs in Airdox operations, prevention	IC 7515
statutes	B 94	electric blasting	B 240
stripped, reclamation	RI 3440	electric cap lamps, permissible	B 359; IC 6942
Coal-liquefaction reaction, kinetics	TP 654	electric circuits, accident prevention, State regulations	RI 2224
Coal matter, volatilization, chemistry	TP 183	electric man-hoist	IC 6301
Coal mines, abandoned, unwatering	B 570	electric-power-distribution systems, studies	IC 7716
acid water	RI 3097, 3098, 3102, 3119, 3146, 3193; CIT 4	electric shock, prevention	IC 7620
action of rock dust in, facts and fallacies	IC 7755	electric shot firing	B 17, 240; TP 108
air, composition	B 105; TP 119, 190	electric sparks and arcs, hazards	B 277; RI 2626; MC 7; RI 2405
humidity	B 20, 83	electric switches, tests	B 68
air conditioning, with water sprays, to prevent roof falls	RI 3775	electrical equipment, grounding	RI 3734; IC 7322
Airdox systems, electric currents, stray, study	RI 4537	installation, safe	B 514; TP 402; IC 6269
auger mining operations	RI 5325	regulations	TP 138
auxiliary fans, hazards	IC 7295	safety rules	IC 6269
belt conveyors in, control equipment	IC 7749	State laws	TP 271
fire hazard	IC 7749	use, safe	B 514; TP 402
installation and operation, safe methods	IC 7749	voltage	IC 6556
black blasting powder in, explosion hazards	IC 7492	electrical hazards, study	IC 7518
blasting, effect on roof	MC 48R	electricity, State laws	TP 271
electric	IC 6264	use, analysis	RI 3683
incombustible stemming plugs in, safety, tests	RI 4686	investigation	IC 7272
multiple, short-delay, special precautions	IC 7895	elevators, automatic electric, for transporting men, study	IC 7628
multiple shot	RI 3269	escapeways, emergency	IC 7478
practice	IC 6300, 6837	Europe, survey	B 414
responsibility	RI 2488	explosives	MC 27
stemming explosives in, use of incombustible plugs for	RI 4793	characteristics	IC 7040
blasting devices, permissible tests	S 26A	composition	B 5
blow-out shots, detecting	TP 210	handling, suggestions	IC 7278
boreholes, Cardox blasting devices, confining methods	RI 3714	investigations, review	IC 7241
brattices in, use	MC 25; RI 2872	Mine Safety Board decisions	IC 6091, 6198, 6732, 6946
bumps, causes	B 535; RI 3267	permissible, tests	S 1G, 17C
hazards	B 535	use	B 137
occurrence	B 535	precautions	B 17; MC 2, 7, 21; IC 6300
prevention	B 535	thermochemistry	B 15
car trips in, runaway	IC 6436	use, safe	IC 7040
checking systems	IC 6281	study	IC 7272
clay materials in	IIG 18	suggestions	IC 7278
clearance spaces, for travel, Mine Safety Board decisions	IC 6732, 6946	explosive hazards, prevention	IC 7618
concrete stoppings, to stop explosions	B 345; RI 3036	falls of roof and coal	TP 410, 520, 522, 534, 541, 547, 550, 563; MC 9, 22; RI 3070, 3110, 3188, 3189, 3199, 3203, 3207; IC 6032, 6035, 6053, 6093, 6110, 6225R, 6315, 6344, 6345, 6434, 6570, 6617, 6783, 6863.
		timbering along robbing line, effect	IC 6042
		Federal inspection, progress	IC 7625
		report	IC 7625
		results	DAR 1942-47, 1949-54

B Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal mines, fire-fighting equipment..... IC 6323
 selection, placement, and care..... IC 7662
 fire-fighting facilities, comparison with other
 industry..... IC 7931
 study..... RI 5363
 fire hazards, minimizing, 250-275-volt d.c.
 systems, by adequate circuit-breaker
 protection..... IC 7624
 fire-protection system..... IC 7852
 fireboss, duties..... RI 2167
 firing open shots, explosion disasters..... IC 7632
 hazards..... IC 7632
 first-aid training..... IC 6020
 flooded, unwatering..... TP 549
 hazards..... RI 2649
 gases, analyses..... B 26, 72, 105; TP 39, 119, 190
 analyzing..... B 42, 197; TP 14
 bibliography..... RI 3233
 detection..... VE 39
 training mine officials, method..... IC 7639
 training mine workers, method..... IC 7639
 emission, factors..... RI 3233
 explosive, occurrence..... B 72; MC 14
 properties..... CMM
 gas-analysis laboratories, apparatus..... TP 14
 gas explosions, prevention..... TP 56
 gas ignition, by friction, by mining machines. IC 7727
 prevention, measures..... IC 7727
 gassy, circuits, voltage..... IC 6556
 definition, Mine Safety Board decisions. IC 6091,
 6198, 6732, 6946, 7153
 diesel engines, use..... RI 3527
 electrical equipment, Mine Safety Board de-
 cisions..... IC 6798, 6732, 6946
 safeguarding..... IC 6083
 international viewpoint..... IC 6690
 grease cars, description..... IC 7244
 haulage..... IIG 132
 Mine Safety Board decisions..... IC 6732, 6946
 relation to safety..... IC 6242, 6243
 ventilation, Mine Safety Board deci-
 sions..... IC 6139, 6198, 6732, 6946
 haulage machines..... RI 2352
 haulageways, coal dust in, Mine Safety Board
 decisions..... IC 6732, 6946
 health hazards..... IC 7352, 7417
 high recovery ratios..... IC 6872
 high-tension power circuits, installation..... IC 7044
 hoisting, high speed..... RI 2296
 ventilation, Mine Safety Board deci-
 sions..... IC 6139, 6198, 6732, 6946
 hoisting signals..... IC 7352
 inclines, runaway car trips..... IC 6436
 inspection, procedure..... IC 7625
 results..... DAR 1955-57
 inspection laws..... B 94
 inspection standards, tentative..... IC 7204, 7243
 internal-combustion engines, State regula-
 tions..... IC 7019
 leasing conditions..... RI 2726, 2743, 2780
 lighting..... IC 7035
 by permissible electric lamps, Mine Safety
 Board decision..... IC 7035
 State laws..... IC 7035
 loading, mechanical..... CIT 17, 26
 loading equipment..... B 343
 permissible, list..... IC 6942
 longwall mining, methods..... IC 6893
 roof-movement study..... RI 5028
 low-voltage, hazards..... IC 6201
 lubricants, transportation, storage, and han-
 dling..... IC 7244
 mechanical equipment, installation..... B 358
 mechanical loading..... IC 6300; CIT 17, 26
 mechanization, status..... IC 7063

Coal mines, mechanized, roof control, ques-
 tions and answers..... RSH
 methane, electrical ignition, prevention, rec-
 ommendations..... IC 7648
 methane detectors, evolution..... IC 6733
 methane hazards, ventilation recommenda-
 tions..... IC 7648
 miners' lamps, Mine Safety Board deci-
 sions..... IC 6091, 6126, 6198, 6732, 6946
 mining, methods and practices, studies..... IC 7794,
 7804
 "muditing," advantages..... IC 6099
 natural gas, escape..... B 65
 old workings, precautions..... IC 7288
 100-percent first-aid training program, plan
 and organization, Colorado Fuel & Iron
 Corp., Colo..... IC 7712
 open lamps in, dangers..... RI 2567
 operation without accidents..... IC 6762
 pillar extraction, alinement, factors..... IC 6727
 plan..... IC 7322
 power consumption, analysis..... RI 3615
 power studies..... IIG 144
 refuse, salvage of coal..... RI 3768
 refuse dumps, construction..... IC 7439
 fires, causes..... IC 7439
 control..... IC 7439
 rescue apparatus, use..... TP 334
 rescue standards..... TP 334
 rescue work..... RRH
 respiratory apparatus, regulations..... IC 6206
 rock drilling in, dust collectors, permissible,
 tests..... S 25A
 dust-control methods..... RI 5004
 intermittent, dust exposure, study..... RI 5004
 rock dust, application..... IC 7322
 for preventing explosions, sources..... B 225,
 247, 277
 rock-dust barriers, construction..... RI 2977
 tests..... B 353
 rock-dust requirements..... IC 7755
 rock dusting, effectiveness..... B 30, 167, 225,
 247, 277; DAR 1924; RI 3015, 3060; IC 6080,
 6039, 6300.
 examples..... IC 6878
 material..... B 167, 225, 247, 277; IC 6006
 methods..... RI 3465
 roof, effect of blasting..... IC 6738
 inspection, need..... CMC
 penetration, determination, fluid-injection
 tests, results..... RI 5804
 studies..... TP 534, 541, 550, 563; RI 3188
 suspension support..... IC 7538
 testing, methods..... CMC
 proper method..... MC 48R
 unsupported, area..... IC 6040
 roof bolts, recovery, methods..... IC 7826
 roof bolting, advantages..... MC 48R
 Alabama, systems..... IC 7678
 as accident-prevention measure..... CMC
 cost, comparison with peg-timbering
 method..... IC 7658
 method..... IC 7653
 study..... IC 7663
 roof control..... IC 7641, 7471
 studies..... IC 7322, 7562, 7565, 7618, 7647, 7699
 roof movement, studies..... RI 3355, 3452, 3506, 3562
 roof support, essentials..... MC 48R
 wooden bolts, successful use..... IC 7637
 royalties..... RI 2726, 2743, 2780
 safe practices..... MC 22; RI 2366; IC 6675
 safety, progress..... IC 6671, 6810, 6811
 relation of electricity to..... IC 6894
 safety activities, annual review..... DAR 1949-53
 safety committees..... IC 6283
 safety conditions..... IC 6812

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal mines, safety in, studies..... IC 7904, 7905
safety methods, description..... B 277;
RI 2372; IC 6339, 6570
safety organizations, formula..... IC 6045, 6414
work..... TP 489
safety practices, Ruhr district, Germany... IC 7549
safety records..... IC 6130, 6417, 7365
outstanding..... IC 7482
safety work..... IC 6045, 6339, 6344, 6345, 6374, 6625
sanitary survey..... RI 2746
sealing, Mine Safety Board decisions..... IC 6091,
6198, 6732, 6946
sealing following fire, procedure..... IC 7418
shaft-bottom lay-outs, arrangement..... IC 6949
short-circuiting contactor, electrical protec-
tive device, description..... RI 4759
tests..... RI 4759
shot firing, methods, Mine Safety Board deci-
sions..... IC 6198, 6732, 6946
regulations..... B 240
shuttle-car roadways, allaying dust with
salts..... RI 3828
skip hoisting..... IIG 151
slope, hoisting-signal code, suggestions..... IC 7291
slope-bottom lay-outs, arrangement..... IC 6949
small, inspection, study..... IC 7562
squeezes, prevention..... B 60
stone dusting, to prevent explosions..... B 20,
167, 225, 247
subsidence, studies... B 25, 238; IC 6501; IIG 17, 91
supervision..... IC 6434
surface structures, pillar supports..... TP 527
ties in, treated, use..... IC 6797
timber, cost..... B 235
recovery..... B 235
supply, future..... RI 2784
support, tests..... IC 6851
treated, use..... B 235; IC 6797
withdrawal..... IC 6722
timbering, data..... TP 534,
541, 547, 550; MC 31; RI 2465, 2546, 3070;
IC 6300, 6651; VE 40.
methods..... MC 38, 40, 48R
questions and answers..... MC 31
State laws..... TP 421
systematic..... IC 6316
transportation, haulage hazards..... IC 7467
precautions..... IC 7467
trolley-locomotive haulage system, hazards... IC 7328
250-275-volt d.-c. systems, circuit-breaker pro-
tection, adequate, minimize fire haz-
ards..... IC 7624
effectiveness, tests..... IC 7624
under gasoline pipelines, hazards..... IC 7708
unsealing following fire, by air-locking meth-
ods..... IC 7418
unwatering, hazards..... RI 2849
ventilation..... VE 41
adequate, importance..... CMV
air for, Mine Safety Board decisions..... IC 6091,
6126, 6198, 6732, 6946
aspects..... CMV
definitions, Mine Safety Board decisions... IC 6091,
6126, 6198, 6732, 6946
factions..... B 285; MC 27; RI 3127
fans, features..... RI 2637
inadequate, gas-accumulation hazards... IC 7656
health hazards..... IC 7221
information for miners..... IC 7137
observations..... IC 7082, 7047
phases..... IC 6126
precautions..... MC 16
research..... IC 7689
progress..... IC 7573
study..... IC 6614

R. Revised.

Coal mines, ventilation, systems..... CMC
without doors, to control main air cur-
rents..... IC 7853
ventilation doors, Mine Safety Board de-
cision..... IC 7018
wash and change houses, laws and regula-
tions..... IC 7423
water in, investigations, bibliographies... TP 639, 698
water supply..... MC 28
western Arkansas, mining methods and prac-
tices, study..... RI 4448
wetting, disadvantages..... B 225
to allay coal dust, Mine Safety Board de-
cisions..... IC 6732, 6946
Coal-mine accidents, annual data..... B 69,
355, 373, 380, 387, 397, 409, 420, 430, 437, 444,
448, 456, 462; TP 27, 48, 69, 85, 107, 159, 175,
192, 231, 259, 291, 313, 340, 358, 380, 406, 426,
435, 467, 478, 509, 540, 553, 627, 647; MY 1932-
46; IC 6506, 6530, 6664, 6672, 6763, 6864.
causes..... B 481; IC 7485
costs..... TP 580; IC 6529, 6618, 6791, 6860
electrical, fatal..... IC 7011
nonfatal..... IC 7011
prevention..... CMC; CMM; IC 7620
explosives..... IC 7485
data..... TP 107, 159, 192, 231
prevention..... B 481; CMC; CMM
falls of coal, prevention... MC 48R; CMC; IC 7461
falls of rock, prevention..... IC 7461
falls of roof..... MC 9;
RI 3203; IC 6225R, 6334, 6345, 6434, 6570
prevention..... MC 38; CMC; CMM
haulage, prevention..... CMC; CMM
machinery, prevention..... CMM
miscellaneous, prevention..... CMC
monthly statement..... TP 27
prevention..... B 277;
MC 38, 48; CMM; RI 2345; IC 6191, 6409,
6417, 6436, 6731, 6762, 6919, 7461.
progress..... IC 7485
recommendations..... IC 7869
reduction..... IC 6191, 6434, 6530
reporting, forms..... TP 194
review..... DAR 1951-53; IC 7167
severity rates, study..... RI 2783
statistics, Bureau of Mines publications, bibli-
ography..... TP 705
compilation..... RI 2641
tool, prevention..... CMM
Coal-mine accident-prevention course..... MC 47R-50R,
58R-60R
Coal-mine barriers, tests..... B 20,
82, 99, 167, 225; TP 56, 84; MC 21, 27; RI
2977.
to resist water..... TP 527
Coal-mine blowers, Mine Safety Board de-
cision..... IC 6946
Coal-mine cages, safety catches, testing..... IC 7290
Coal-mine disasters, barricading after, as life-
saving measure..... MC 42R
list..... B 481
major..... B 456, 462
Coal-mine dust, allaying..... IC 7352, 7566
breathing, pathogenic effects..... RI 5361
control, survey..... IC 7733
water infusion, tests..... RI 4836
formation..... IC 7089
sampling, by impinger methods..... IC 6048
for incombustible content..... IC 7113
sources..... RI 2793
Coal-mine entries, air flow, resistance to... RI 2621,
2647, 2671, 2853
Coal-mine equipment, operation, by compressed
air..... RI 3196

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coal-mine explosions, arresting, rock dusting, tests----- RI 5264
 results----- IC 7755
 causes----- CMC
 review----- IC 7900
 caused by defective safety lamps----- IC 7271
 caused by smoking, review----- IC 7141
 coal dust needed to propagate----- RI 3132
 concrete stoppings to resist, strength, tests----- RI 3036
 data----- B 17,
 20, 26, 56, 167, 225, 277; TP 21, 56, 84, 190;
 MC 21; RI 2638, 3036, IC 6178, 6352, 6424,
 6710, 6752-6754, 6760, 6761, 6764-6766, 6801,
 6802, 6819, 6870, 6927, 6956, 6986, 7004, 7048,
 7092, 7136, 7163, 7208, 7274, 7322, 7330, 7352,
 7359, 7456, 7572, 7661.
 development, facts and fallacies----- IC 7755
 electrical hazards----- IC 7352
 from mud-capped shots----- IC 6158
 major, 1839-1957, description----- IC 7900
 occurrence, time of day----- RI 2638
 prevention----- CMC; CMM
 methods, review----- IC 7900
 progress, review----- IC 7900
 review----- IC 7274
 studies----- TP 507; IC 6352, 7163, 7272
 Coal-mine fans, auxiliary, Mine Safety Board
 decision----- IC 6946
 main, Mine Safety Board decision----- IC 7050
 Mine Safety Board decisions----- IC 6091,
 6198, 6732, 6946, 7050
 observations----- IC 7032
 Coal-mine fatalities, annual data----- B 69,
 115, 196, 241, 251, 275, 283, 296, 319, 341, 355,
 373, 380, 387, 397, 409, 420, 430, 437, 444, 448,
 456, 462, 509, 525, 540, 549, 559; TP 27, 48, 69,
 85, 107, 159, 175, 192, 231, 259, 288, 291, 302,
 313, 339, 340, 358, 380, 406, 426, 435, 467, 478,
 509, 540, 558, 627, 647; IC 7859.
 causes, studies----- IC 7647, 7663
 costs----- TP 589
 from electric contacts----- IC 7120
 investigation, by Federal coal-mine in-
 spectors----- IC 7625
 review----- IC 6177,
 6354, 6505, 6517, 6519, 6672, 6746, 6909, 6813,
 6823, 6868, 6890, 7006, 7103.
 Coal-mine fires, annual reports----- IC 6761,
 6819, 6870, 6927, 6986, 7048, 7092, 7136, 7208,
 7274, 7830, 7859, 7456, 7572, 7661.
 caused by arcs and sparks from trolley wires,
 prevention----- IC 7302
 control----- RI 4685
 study----- IC 7618
 tests, in Experimental mine----- RI 4793
 with high-expansion foams, tests, in Experi-
 mental mine----- RI 5419
 data----- IC 7661
 electrical, cause and prevention----- IC 6961,
 7352, 7716
 extinguishing, by water infusion----- RI 4836
 with carbon dioxide----- IC 7563, 7564
 fighting----- B 229, 277; TP 330; IC 6323
 gob, extinguishing, with liquid carbon
 dioxide----- IC 6970
 prevention----- B 229,
 277; TP 24; MC 10, 27; CMC; CMM
 Coal-mine foreman, good safety record, ac-
 count----- IC 6130
 Coal-mine haulageways, coal dust in, abating,
 Mine Safety Board decision----- IC 6946
 safety suggestions----- IC 6969
 Coal-mine hazards, new, elimination----- IC 7140
 reducing, work on, Europe----- IC 7739
 Coal-mine injuries, annual data----- B 509,
 525, 540, 549, 559; IC 7859
 Coal-Mine Inspection Branch, activities----- IC 7562
 wartime----- IC 7487
 annual report----- IC 7685
 organization----- IC 7625
 Coal-Mine Inspection Division, annual re-
 ports----- IC 7734, 7765, 7795, 7833, 7902
 organization----- IC 7243
 personnel, training----- IC 7243
 work----- IC 7243
 Coal-mine inspection standards, tentative----- IC 7204,
 7243
 Coal-mine lamps, types----- IC 7035
 Coal-mine officials, certificates, Mine Safety
 Board decisions----- IC 6732, 6946
 instruments, use----- IC 7037
 responsibility, in mechanical mining----- IC 7061
 Coal-mine pillar, stress conditions----- B 585
 Coal-mine refuse, salvage of coal from, using
 pulverized rock as dense medium----- RI 5184
 Coal-mine roof, disintegration, reduction, meas-
 ures----- RI 3588
 protecting, by paint----- RI 3588
 Coal-mine safety, contributors to----- IC 7666
 Coal-mine studies, health hazards----- IC 7852, 7417
 Coal-mine tests, permissible explosives, poison-
 ous gases from, comparison with those
 obtained with Bichel-gage tests----- RI 4663
 Coal-mine waste, pyritic, beneficiation----- RI 3628
 utilization----- IC 7106
 for darkening light-color soils----- RI 3516
 Coal miners, education, underground----- IC 6054
 explosives, directions for use----- B 17
 output----- RI 2145
 safety manual----- CMM
 Coal Mines Administration, organization and
 duties----- MY 1943
 RI 2448
 Coal mining, brattice cloth used in, tests----- IC 6070
 concentrated, hazards----- B 296
 costs----- TP 606,
 explosives used, annual data----- 627, 636, 647; RI 3350, 3414
 correct----- B 14, 15; 219; MC 7
 faulted beds, problems----- B 190
 health, promotion, by watering----- IC 7041
 highway subsidence caused by----- RI 3562
 investigations, review----- IC 7322
 machine cuttings, removal, Mine Safety Board
 decisions----- IC 6732, 6946
 mechanical, multiple shift, investigation----- IC 7272
 mechanized, responsibility of officials----- IC 7061
 methods----- B 141,
 298; TP 154, 308, 344, 347, 356, 366, 405, 411,
 416, 417, 455, 465, 484, 491, 529, 569, 574.
 bibliography----- TP 689
 investigations----- TP 626,
 641; RI 3470, 3536; IC 6973, 6992, 7052, 7055,
 7105, 7143, 7190, 7322, 7352, 7417, 7446; WPA
 9.
 review----- WPA 9
 methods and practices, Ruhr district, Ger-
 many----- IC 7549
 study----- IC 7699, 7756
 panel system----- IIG 113
 safety----- B 277, 296; RI 2372; IC 6189
 promotion, by watering----- IC 7041
 status----- IC 7181
 shaft-sinking methods----- IC 6378, 6602
 Spain, information----- IC 7896
 static electricity, hazards----- B 368
 statutes----- B 94
 steep beds, problems----- B 190
 technology----- WPA 1
 Coal-mining areas, natural gas, storage, under-
 ground----- IC 7634

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Coal-mining industry, accidents, economic relations RI 2345
 diseases RI 2345
 electrical accidents, physiological aspects... IC 7620
 health and safety conditions and practices, accomplishments, 10-year period..... IC 7625
 Coal Mining Institute of America, contributor, to coal-mine safety..... IC 7665
 Coal-mining laws, summary..... MC 39
 Coal-mining machinery, tramming, nipping hazards, reduction..... IC 7056
 Coal-mining towns, sanitary survey..... RI 3184
 Coal Mountain mine, W. Va., coal, carbonizing properties..... TP 683
 Coal-oil amalgams, distillation, low temperature RI 2312
 Coal-oil mixtures, distillation, destructive... RI 2301
 preparation and combustion..... IC 7272
 use in oil burning equipment..... IC 7322
 Coal particles, size distribution, determination by electron microscope..... RI 3827
 Coal pieces, ash, variability, relation to weight and ash content..... B 454
 Coal pile, heat, dissipation..... B 455
 generation..... B 455
 liability to heat spontaneously..... B 455
 Coal pillars, small, strength, tests..... TP 605
 water infusion, to control dust, tests..... RI 4836
 Coal planer, discussion..... IC 7446
 German, longwall mining, operating data..... RI 5062
 operations, study..... RI 5355; IC 7699
 tests..... RI 4922
 pneumatic, design..... RI 5380
 tests in hard anthracite..... RI 5380
 Ruhr district, Germany, design and operation IC 7377
 Coal products, annual data..... MR 1924-31;
 MY 1932-37; MYA 1932-35; DAR 1943-47
 Coal pyrite, flotation..... RI 3263
 Coal-rock dust mixtures, incombustible matter, determining..... TP 144
 Coal samples, collection..... TP 586
 Coal-sampling truck, Bureau of Mines, description..... IC 6545
 Coal-shale refuse, pulverized, as dense medium for cleaning coal, pilot-plant-performance tests..... RI 5212
 Coal slurry, filtration, flocculation as aid..... RI 5535
 Coal stokers, domestic, burning coal on..... B 475
 tests..... RI 3599
 Coal substance, study..... IC 6211
 Coal tar, analytical distillation..... RI 3171
 composition..... B 412
 crude, annual data..... MY 1949-51,
 1952 (vol. II)-1958 (vol. II)
 from carbonizing coal, phenol and cresol contents..... RI 4755
 low-temperature, research..... IC 7794
 products..... TP 89
 production, by low-temperature methods, Germany..... IC 7490
 properties..... TP 268
 Coal-tar creosote, as preservative, for mine timber..... RI 2321
 Coal-tar distillate, composition..... B 569
 Coal-tar industry, high temperature, Germany, investigation..... IC 7409
 Coal-tar pitch, extinguishing magnesium fires with..... RI 3672
 Coal technology, Bureau of Mines investigations... TP 618; DAR 1937-42; IC 6992, 7052, 7105, 7143, 7190, 7241, 7272, 7322, 7352, 7417, 7446.
 Coal trade, international, competitive conditions..... IC 6918
 Coal utilization, investigations..... IC 6992,
 7052, 7105, 7143, 7190
 Coal washer, cyclone-type, Netherlands, for fine coal, description..... IC 7446
 Coal washery, dense-medium, using pulverized mine rock in recovering coal from mine refuse, description..... RI 5184
 table middlings, classification..... RI 3448
 Coal-washery water, clarification..... RI 3427,
 3494, 3538; IC 6992
 Coal-washing jig, Baum-type, performance..... RI 3371
 pulsator-type, performance..... RI 3372, 3427
 Coal-washing table, efficiency, effect of operating variables..... RI 3111
 re-treatment of jig middlings on..... RI 3101
 re-treatment of washed coal on..... RI 3165
 separation of coal and refuse on, stratification, role..... RI 2950
 sizing action..... RI 2755
 Coal waste, activated carbon from..... RI 3599
 for water purification..... RI 3548
 as soil conditioner, use..... RI 3538
 as water softener, use..... RI 3599
 carbonaceous cation exchangers from..... RI 3559
 utilization..... RI 3427, 3473, 3675
 Coal-water gas-tar mixture, distillation, gas from, unsaturated hydrocarbons..... RI 2318
 Coal-water slurries, flashing in heated coils, study..... RI 5236
 Coalbeds. See Coal beds.
 Coalburg bed, Ky., coal, washing characteristics..... RI 4910
 coking coal, reserves, estimate..... RI 4792, 4893
 W. Va., coal, washing characteristics..... RI 5278
 coking coal, reserves, estimate..... RI 4966,
 5063, 5259
 Coaldale, Nev., coal, used in gas producer... RI 3994
 Coalfields. See Coal fields.
 Coalinga oil field, Calif., study..... B 195
 Coalmont bed, Colo., coal, surface moisture, tests..... RI 3811
 Coastal fields, Calif., oil, secondary recovery, by gas and water injection..... RI 4887
 Cobalt, annual data..... MR 1924-31;
 MY 1932-51, 1952 (vol. I)-1958 (vol. I)
 as alloy in steel..... B 100
 bibliographies..... MS 5; IC 6331
 Bureau of Mines exploration projects, war... RI 3801
 carbonate, precipitation..... RI 3832
 preparation..... RI 3832
 concentrates, preparation..... RI 3836
 deposits..... IC 6331
 exploration..... RI 4012
 foreign..... MS 5
 United States..... MS 5
 effect, on electrodeposition of manganese... RI 3872
 electrodeposition..... RI 3836
 factors..... RI 3832
 quantitative..... RI 3370
 electrolytes, properties..... RI 3832
 electrolytic, production, Bureau of Mines research..... RI 4172
 by hydrometallurgical process..... RI 4064
 cost..... RI 4172
 electrometallurgical studies..... RI 3547, 3600
 entropies..... B 350, 434, 476, 477
 exports, United States..... MS 5
 fusion, heat..... B 371
 Government controls, history..... MS 5
 heat and free energy of vaporization equations..... B 333
 heat content, data..... B 476
 high-purity, electrolytic deposition..... RI 5175
 production, experimental..... RI 5175
 history..... MS 5
 hydrometallurgy, factors..... RI 3832

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Cobalt, imports, foreign..... MS 5
 United States..... MS 5
 in manganese ores, studies..... RI 3896
 metallurgy..... B 556; IC 6331
 extractive, bibliographies..... IC 7805, 7883
 literature, review..... IC 7805, 7883
 outlook..... B 556
 postwar..... MY 1943
 producers, foreign..... MS 5
 United States..... MS 5
 production, world..... B 566; MS 5
 properties..... IC 6331
 pure, bibliography..... RI 3920
 recovery, from lead-copper sulfide minerals.
 investigations..... RI 4999
 resources..... GS 3
 foreign..... MS 5
 United States..... MS 5
 samples, spectrochemical analyses..... RI 4198
 separation and electrodeposition from manga-
 nese electrolytes..... RI 3866
 specific-heat equations..... B 371
 trade data..... IC 6331
 uses..... B 556; IC 6331
 vapor pressure..... B 383
 Cobalt and nickel, electrolytic separation
 studies..... RI 5394
 separation, electrolytic method..... RI 5543
 Cobalt carbide, preparation and properties..... RI 3770
 thermodynamic data..... B 407
 thermodynamic properties..... B 384
 Cobalt catalysts, for Fischer-Tropsch process,
 use..... IC 7366
 studies..... B 578
 Cobalt chloride, vapor pressure..... TP 360
 Cobalt-chromium-zirconium alloys, study..... RI 4658
 Cobalt-copper ores, ore-dressing methods..... RI 4279
 Cobalt-copper oxide ores, electrometallurgy..... MTN 47
 hydrometallurgy..... MTN 47
 Cobalt Hydraulic Power Co., Canada, Taylor
 hydraulic air compressor, installation,
 review..... IC 7683
 Cobalt-nickel-copper deposit, exploration..... RI 3950
 Cobalt-nickel-iron-bearing deposits, investiga-
 tions, results..... RI 5532
 Cobalt-nickel ores, exploration, Cuba..... RI 5099
 reserves, Cuba..... RI 5099
 Cobalt-nickel stockpiles, upgrading, by roast-
 flotation process..... RI 5388
 Cobalt ore, flotation tests..... RI 3370
 metallurgical treatment..... RI 3836
 Cobalt oxides, heat and free-energy-of-formation
 values, tabulation..... B 542
 Cobalt powder, granulation..... RI 5133
 melting..... RI 5133
 refining..... RI 5133
 Cobalt solutions, electrodeposition tests, re-
 sults..... RI 3370
 purifying, procedure..... RI 5175
 Cobalt sulfate, thermodynamics properties..... B 406
 Cobalt sulfide, thermodynamics properties..... B 406
 Cobalt-zirconium alloys, study..... RI 4658
 Cobaltinitrite staining method to determine
 feldspars in pegmatites, description..... IC 7412
 Cochran mine, Pa., coal, washing character-
 istics..... RI 4823
 Coconino County, Ariz., manganese deposits,
 description..... IC 7843
 Codes, National Recovery Administration..... MY 1934,
 1935
 Coe bauxite deposit, Pulaski County, Ark., drill-
 ing..... RI 4255
 Coen burner, for fuel oil..... B 214
 Coercimeter, development..... B 425; RI 3400
 uses..... B 425; RI 3400, 3419
 in grinding magnetite..... RI 3331
 Coeur d'Alene district, Idaho, copper ores, flota-
 tion..... B 265; TP 182
 mine rescue organization..... IC 6068
 mine rescue stations..... MC 39
 mine ventilation..... IC 6382
 Sunshine silver mine, survey..... IC 6376
 Coffey tract, Kans., lead-zinc deposits, investiga-
 tion..... RI 4337
 Cogs, as mine-roof supports..... B 25
 Coggins chromite mine, Calif., investigation..... RI 4587
 Coin, 5-cent, nickel substitutes..... RI 3658
 Coke, advantages..... RI 2980
 analyses..... B 6, 20; TP 50; RI 2432
 annual data..... MR 1924-31; MY 1932-51,
 1952 (vol. II)-1958 (vol. II); MYA 1932-33
 as fuel, domestic..... B 27;
 TP 97, 242, 315, 367; RI 2980
 for brass melting..... B 73
 for manganese-smelting furnace..... B 178
 for producer-gas plants..... B 4, 13; TP 9
 for water-gas generators..... B 203;
 TP 246, 274, 284
 as substitute for anthracite, qualities..... RI 2519, 2520
 for house heating..... IC 7260
 ash-fusion temperature, relationship to that
 of coal..... RI 3505
 beehive, annual data..... MR 1924-31; MY 1932-51,
 1952 (vol. II)-1958 (vol. II); MYA 1932-35
 coking tests..... B 5
 development..... TP 50
 manufacturing methods..... RI 3551
 production..... MY 1942; RI 3711
 studies..... IC 7322
 quality..... B 3
 studies..... IC 7352
 use..... TP 50
 bibliography..... RI 2980
 byproduct, analyses..... RI 3907
 annual data..... MR 1924-31;
 MY 1932-45; MYA 1932-33
 as boiler fuel, tests..... TP 315
 manufacturing methods..... RI 3551
 production, wartime progress..... RI 3907
 use of anthracite fines in..... RI 3906
 carbon monoxide, formation..... B 7
 carbonization products, yields..... RI 4104
 characteristics, desirable..... RI 3601
 combustibility..... RI 2904
 combustion, American Society for Testing Ma-
 terials laboratory tests, significance..... IC 7619
 rate..... RI 2904
 consumption, heating, residential and com-
 mercial buildings, 1935-51..... IC 7657
 cupola tests..... B 8
 desulfurization..... RI 2469; CIT 7
 study..... IC 7518
 electric furnace, use..... B 67; 77, 81
 for steel production, western..... IC 7352
 foundry, production from Sunnyside coal,
 Utah, study..... IC 7618
 use..... B 3
 from BM-AGA carbonization tests, proper-
 ties..... RI 3650
 from coal..... IC 7559
 air-cleaned..... RI 3114
 from peat..... B 16
 gas house, yield, from various coals..... B 6E
 grinding, laboratory methods..... RI 2679
 improved, increased pig-iron output through
 RI 3711, 3745
 in air, combustibility..... RI 3499
 investigations, bibliographies..... B 528; TP 639, 696
 low ash, for carbon electrodes, use..... IC 7322

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coke, low-temperature, hydrogenation.....	IC 6075	Coke filter, moving-bed, design.....	RI 5033
production, German developments.....	IC 7395	for removing dust from gas, operation... RI 5033	
volatile-matter determination.....	RI 3168	operation, in coal-gasification pilot plant. RI 5033	
precision.....	RI 3739	Coke industry, relation to foundry.....	B 3
lump, moisture, determining.....	TP 148	Coke making, coals for, selection.....	RI 3601
manufacture, using fluid petroleum coke as		Coke-making properties, coal, determining,	
blending agent, tests, with Tuscaloosa		methods.....	B 344; M 5
oven.....	RI 5276	Coke ovens, accident statistics, Bureau of Mines	
metallurgical, breakage processes, study... RI 5096		publications, bibliography.....	TP 705
coal, Upper Silesia, Germany.....	IC 7462	anthracite in, use in mixes.....	IC 7352
for western furnaces, problems.....	IC 7322	beehive, accidents, annual data.....	TP 151,
noncoking coals, Germany.....	IC 7462	173, 206, 239, 266, 293, 318, 349, 371, 388, 408,	
properties.....	TP 50; RI 3101	437, 443, 468, 495, 508, 526, 559, 614, 623, 640,	
size-distribution patterns, study.....	RI 5096	651, 660, 675; MY 1938-46; RI 3273; IC 7820,	
treatment of coal by two-stage process... IC 7462		7831.	
natural, analyses.....	B 22	combustion in, control.....	IC 7352
oven, annual data.....	MY 1947-51;	employment, annual data.....	TP 151,
1952 (vol. II)-1958 (vol. II)		173, 206, 239, 266, 293, 318, 349, 371, 388, 408,	
petroleum, annual data.....	B 280, 289, 297, 318, 339,	437, 443, 468, 495, 508, 526, 559, 614, 623, 640,	
367; MR 1924-31; MY 1932-37; MYA 1932-35		651, 660, 675; MY 1938-46; RI 3273, 3280	
economic survey.....	EP 9	fatalities, annual data.....	B 527,
fluid, use as blending agent in manufacture		548, 553, 564; TP 151, 173, 206, 239, 266, 293,	
of coke, tests, with Tuscaloosa oven... RI 5276		318, 349, 371, 388, 408, 437, 443, 468, 495, 508,	
physical properties.....	IC 7518,	526, 559, 614, 623, 640, 651, 660, 675; MY	
7565, 7618, 7647, 7663		1938-46; RI 3273, 3280; IC 7899.	
production, effect of use of natural gas on,		injuries, annual data.....	B 527,
study.....	IC 7579	548, 553, 564; IC 7841, 7862, 7899	
using anthraflines in blends of coal.....	RI 5287	status.....	RI 3711
properties.....	TP 597	bulk densities, control.....	RI 3807, 3935; IC 7352
chemical.....	RI 2884	byproduct, accidents, annual data.....	TP 151,
effect of coal-cleaning methods.....	RI 3114	173, 206, 239, 266, 293, 318, 349, 371, 388, 408,	
effect of coal washing.....	RI 3020	437, 443, 468, 495, 508, 526, 559, 614, 623, 640,	
requirements.....	RI 2884	651, 660, 675; MY 1938-46; RI 3273.	
sampling procedures.....	RI 4735	annual data.....	MR 1923-31;
screen analysis.....	RI 4735	MY 1932-37; MYA 1932-33	
precision, investigation, results.....	RI 4933	bulk densities, control.....	RI 3935
standard deviations, equation.....	RI 4933	coal charge, bulk density, control.....	RI 3743
screening.....	B 234	coal for, surface moisture, tests.....	RI 3811
shatter test.....	TP 8R, 50	employment, annual data.....	TP 151,
method.....	B 492	173, 206, 239, 266, 293, 318, 349, 371, 388, 408,	
precision, study.....	RI 4987	437, 443, 468, 495, 508, 526, 559, 614, 623, 640,	
shrinkage.....	RI 3539	651, 660, 675; MY 1938-46; RI 3273, 3280	
sizes.....	HFH	fatalities, annual data.....	B 527,
tests.....	RI 4735	548, 553, 564; TP 151, 173, 206, 239, 266, 293,	
steamed, sulfur forms.....	RI 2518	318, 349, 371, 388, 408, 437, 443, 468, 495, 508,	
steaming tests.....	B 23, 27; TP 303, 367	526, 559, 614, 623, 640, 651, 660, 675; MY	
studies.....	IC 7322	1938-46; RI 3273, 3280.	
sulfur in, forms, analysis.....	RI 2096	injuries, annual data.....	B 527, 548, 553, 564
testing methods.....	TP 50	tests of coal.....	B 336; RI 3717; IC 7322
statistical procedure.....	RI 4735	types.....	TP 50
treated with chemicals, burning.....	B 404	waste, pollution of streams by.....	PHS 1042
tumbler test, method.....	B 492	experimental, Bureau of Mines experiment	
types.....	HFH	station, Alabama, carbonizing tests,	
water gas, reactions.....	B 7	results.....	RI 5186, 5276
weight per cubic foot.....	HFH	diagram.....	RI 5186
western, properties.....	IC 7105	new, Bureau of Mines experiment station,	
wet- and dry-quenched, from coal carbonized		Alabama, carbonizing procedures.....	RI 5011
in Tuscaloosa oven, properties,		carbonizing tests, results... RI 5011, 5125	
study.....	RI 5479	description.....	RI 4923; IC 7518
Coke ash, analysis.....	TP 8R	tests, results.....	RI 4923; IC 7565
method.....	B 492	test results, reproductibility.....	RI 5125
Coke breeze, annual data.....	MY 1942-51,	operation, volatile matter, effect.....	B 1
1952 (vol. II)-1958 (vol. II)		slot-type, annual data.....	IC 7861
as fuel, for boilers, with bituminous coal... RI 2244		fatalities, annual data.....	IC 7841, 7862, 7899
for gas producers.....	B 13; TP 123	injuries, annual data.....	IC 7841, 7862, 7899
bricketting tests.....	B 24, 58	small, coking pressure, measurement.....	RI 4285
utilization.....	B 3	operation.....	RI 4285
yield.....	TP 50	tests.....	RI 4285
Coke byproducts, annual data.....	MY 1938-45	Coke-oven accidents, annual data.....	TP 118,
postwar outlook.....	MY 1943, 1944	151, 173, 206, 239, 266, 293, 318, 349, 371, 388,	
Coke-coal mixtures, as fuel, for low-pressure		408, 437, 443, 468, 495, 508, 526, 559, 614, 623,	
boilers.....	TP 387	640, 651, 660, 675; MY 1938-46; RI 3273.	
for water-gas generators.....	TP 284	Coke-oven ammonia, annual data.....	MY 1949-51,
Coke district, beehive, conditions.....	RI 3711	1952 (vol. II)-1958 (vol. II)	
E Revised.		production, 1919-47.....	IC 7504
		1948-57.....	IC 7925

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coke-oven charges, bulk density, research--- IC 7417
 variations in, effects on cooking time--- RI 5027
 Coke-oven crude light oil, production, 1948-57. IC 7925
 Coke-oven employment, annual data----- TP 151,
 173, 206, 239, 266, 293, 318, 349, 371, 388, 408,
 437, 443, 468, 495, 508, 526, 559, 614, 623, 640,
 651, 660, 675; MY 1938-46; RI 3273, 3280
 Coke-oven fatalities, annual data----- B 527,
 548, 553, 564; TP 118, 151, 173, 206, 239, 266,
 293, 318, 349, 371, 388, 408, 437, 443, 468, 495,
 508, 526, 559, 614, 623, 640, 651, 660, 675;
 MY 1938-46; RI 3273, 3280; IC 7841, 7862,
 7899.
 Coke-oven gas analyses----- B 16
 annual data----- MY 1942-51,
 1952 (vol. II)-1958 (vol. II)
 hazards----- IC 8009
 production, 1919-47----- IC 7504
 1948-57----- IC 7925
 Coke-oven gas-coal-mixtures, flammability
 limits----- B 530
 Coke-oven injuries, annual data----- B 527;
 IC 7841, 7862, 7899
 Coke-oven practice, beehive, discussion----- RI 3738
 Coke-oven tar, byproducts, production----- TP 268
 production, 1919-47----- IC 7504
 1948-57----- IC 7925
 Coke plants, beehive, annual data----- IC 7820,
 7861, 7934
 status----- RI 3711
 byproducts, coal used----- RI 3807
 operation, effect of use of natural gas on,
 study----- IC 7579
 oven, annual data----- IC 7816, 7861, 7934
 Coker zinc deposits, Wis., investigation----- RI 4226
 Coking, beehive, status----- TP 50
 chemistry----- B 445
 coal, expansion during----- RI 3451
 swelling properties--- RI 3403; IC 7272, 7352, 7417
 determination----- RI 3403
 mechanism----- B 445
 Coking coals, bituminous, boiler tests----- RI 2943
 carbonization tests, small-scale, results--- IC 7352,
 7417
 composition----- B 29, 38
 conversion, from noncoking coals----- B 505
 expansion, effect of anthrafines----- RI 5176
 exploration----- IC 7322
 in Koppers-type oven----- BS
 in Rocky Mountain area, location----- RI 3680
 oil shales, study----- TP 398
 plastic properties----- IC 7272; CIT 60
 reserves, investigations, annual review. DAR 1950-
 53
 estimate----- B 556;
 RI 4734, 4757, 4792, 4801, 4803, 4807, 4813,
 4840, 4893, 4897, 4924, 4966, 4970, 4998, 5003,
 5016, 5029, 5037, 5068, 5077, 5083, 5109, 5131,
 5136, 5143, 5148, 5159, 5160, 5166, 5171, 5185,
 5207, 5208, 5229, 5231-5235, 5258, 5259, 5263,
 5266, 5267.
 studies----- IC 7322,
 7352, 7417, 7565, 7647, 7663, 7699, 7758, 7794,
 7904.
 spontaneous heating----- RI 3711
 utilizing lower grade, research----- IC 7559
 Coking power, coals, durability----- IC 7352, 7417
 Coking process, expansion of coal during----- IC 7322
 Coking properties, bituminous coals, determina-
 tion----- B 445
 Coking tests, coal----- B 5, 138,
 336, 344; M 5; RI 2278, 3599, 3717; BS
 effect of inerts----- CIT 57
 Coking time, relation with flue temperature, in
 experimental coke oven, calculation. RI 5186
 study----- RI 5186
 relation with inner wall temperature, in ex-
 perimental coke oven, calculation--- RI 5186
 Colbert tungsten deposit, Alaska, investiga-
 tion----- RI 4174
 Cold Springs mine, Colo., mining methods and
 costs----- IC 6678
 Cole bauxite deposit, Pulaski County, Ark.,
 drilling records----- RI 4259
 Coleman iron deposits, Mo., exploration----- RI 8570
 Colemanite, calcium borate from, production,
 by carbonic acid leach----- RI 3525
 data----- IC 6499
 thermal reduction----- RI 3490
 Collar method, for treating timber with chemi-
 cals, for mine use----- RI 4960
 Collecting outfit, for sampling coal in mines--- TP 1
 Colleges, safety instruction----- MC 87
 Collier zinc mine, Calif., investigation----- RI 4760
 Collins No. 1 mine, Calif., manganese ore, con-
 centration test----- RI 5163
 Collins No. 2 mine, Calif., manganese ore, con-
 centration test----- RI 5163
 Collins Pine mine, Calif., manganese ore, con-
 centration tests----- RI 5163
 Colloids, in china clays----- B 128
 in coal----- TP 113
 relation to adsorption----- TP 200
 types----- TP 200
 Cologne earth, properties----- IC 6504
 Colombia, cement industry, studies----- IC 7102, 7380
 coal, analyses----- B 512
 coal production, development, study----- IC 7699
 crude oil, analyses----- RI 4657
 bibliography----- RI 4657
 properties----- TP 346
 gold, production----- MTN 11
 summarized data----- EP 6
 minerals, production, annual data----- MR 1924-31;
 MY 1932-47, 1949-51; MYA 1932-35
 mineral industry, review----- MY 1947
 mining laws, synopsis----- IC 6181
 molybdenum, deposits----- EP 15
 petroleum, analyses----- TP 346
 petroleum laws----- B 206; RI 2107
 effect on production----- RI 2250
 platinum, deposits----- IC 6389
 reciprocal trade agreement----- MY 1966
 silver, production, summarized data----- EP 8
 Colonial Colliery Co., Pa., mining anthracite
 without roof falls----- IC 6783
 Color, oil tanks, effect on evaporation
 losses----- B 200; RI 2677
 Color work, analysts, selection----- RI 2268
 Colorado, Alma district, mining and milling
 methods and costs----- IC 7101
 alunite, resources----- RI 3561
 American Smelting & Refining Co., Alice unit,
 mining and milling methods and
 costs----- IC 7058
 Genesee-Vanderbilt mine, mining meth-
 ods----- IC 7554
 American Zinc, Lead & Smelting Co., American
 No. 1 custom mill, lead-zinc ore, milling
 methods----- IC 7554
 Bachelor mine, mining methods----- IC 7554
 San Antonio mine, mining methods----- IC 7554
 anthracite, analyses----- B 22, 119; TP 574
 arsenic, production----- EP 17
 Baca County, clay, deposits----- RI 5553
 Bandora mine, mining methods----- IC 7554
 Bent County, refractory clay, deposits----- RI 5553
 bentonite, deposits----- TP 609
 Big Four zinc-silver mine, exploration----- RI 3884

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Colorado, bituminous coal, analyses.....	B 5, 22, 23, 41, 85, 119, 123, 193, 230; TP 574; RI 2832
heating value, effect of storage on.....	RI 5386
bituminous-coal mines, production by thick- ness of seams mined, 1950.....	IC 7642
Blue Jay fluorite deposit, diamond drilling.....	RI 4483
Boulder, Bureau of Mines field office, work.....	IC 6060
Boulder County, clay, deposits.....	RI 5553
iron ore, reconnaissance.....	IC 7918
tungsten district, investigation.....	RI 4973
tungsten-ore reserves, survey, results.....	IC 7721
Brown Derby pegmatites, tests.....	RI 5204
Buckley Field 1, oxide manganese ore, bene- ficiation.....	RI 4845
Buckley Field 2, oxide manganese ore, bene- ficiation.....	RI 4845
Bucky pegmatite, diamond-drill data.....	RI 4939
Bureau of Mines Experimental Oil-Shale mine, benching jumbo, for drilling vertical blastholes, development.....	RI 4810
borehole blower, for cleaning vertical blast- holes, development.....	RI 4810
design factors, review.....	RI 5429
diesel exhaust gas, conditioning, equipment for, development.....	RI 4810
drilling equipment, for drilling vertical blastholes, development.....	RI 4810
mining operations.....	RI 5044
mining techniques, progress.....	RI 4943
mobile electric substation, development.....	RI 4810
oil shale, rotary drilling, research.....	RI 5174
open-stope mining, evaluation.....	RI 5429
pillar size and spacing, determination.....	RI 5089
research, for improving blasting tech- niques.....	RI 4956
rock, physical and petrographic prop- erties.....	RI 4459, 4727
roof spans, safe, determination.....	RI 5089
scaling rig, hydraulic, operation.....	RI 5074
underground mine openings, design.....	RI 5089
Burrows mine, mining methods.....	IC 7554
Camp Bird lead-zinc deposits, investiga- tion.....	RI 4230
Caribou, geophysical prospecting.....	TP 439
carnotite ores, deposits.....	B 70
mining.....	B 103
tests.....	TP 88
Cement Creek district, tungsten deposits, study, results.....	IC 7731
Chaffee County, clay, deposits.....	RI 5533
iron ore, reconnaissance.....	IC 7918
tungsten prospects, description.....	IC 7748
Chancellor fluorite deposit, diamond drill- ing.....	RI 4483
Clear Creek County, iron ore, reconnais- sance.....	IC 7918
Climax Uranium Co., Salt Wash uranium mines, underground mining methods.....	IC 7908
coal, analyses.....	B 2, 22, 23, 41, 85, 119, 123, 193, 230, 446, 482, 516, 567; TP 574, 692; RI 2832, 4934, 4972, 5009, 5085, 5221, 5270, 5332, 5401, 5489.
briquetting tests.....	B 58
B.t.u. values, average.....	IC 7538
carbonization.....	RI 3680
carbonization assays, low-temperature.....	B 571
carbonising properties.....	TP 692
classification, chart.....	RI 3296R
coking tests.....	B 5
delivered, analyses.....	B 230, 516; TP 574; RI 4934, 4972, 5085, 5221, 5270, 5332, 5401, 5489.
distillation-assay tests, data.....	RI 5009
extraction yields.....	B 482
flammability.....	B 50
Colorado, coal, gas-producer tests.....	B 13
illuminating-gas tests.....	B 6R
mine samples, description.....	TP 574
origin.....	B 38
properties.....	IC 7322
purchase, Government specifications.....	B 11
steaming tests.....	B 23
tipple, analyses.....	B 516, RI 4934, 4972, 5085, 5221, 5270, 5332, 5401, 5489
washing tests.....	B 5
weight per cubic foot.....	TP 184
coal ash, analyses.....	B 567; TP 679
coal beds, metamorphism.....	B 38
Coal Creek district, coal, carbonizing proper- ties.....	B 501
petrography.....	B 501
coal deposits, investigation.....	RI 4104
investigation, review.....	IC 7663
coal-cutting machines, safeguarding, regu- lations.....	RI 2419
coal deposits, exploration.....	IC 7352
coal dust, explosibility.....	B 268
flammability.....	B 50
coal-dust explosion, saving lives.....	RI 2838
coal mines, blasting, responsibility.....	RI 2488
dust-allaying practices.....	IC 7566
electric circuits, laws.....	RI 2224
electric shot firing, regulations.....	B 240; RI 2405
electrical equipment, regulations.....	IC 6108
timbering, laws.....	TP 421
watering practices.....	TP 593
coal-mine accidents, annual data.....	B 69, 115, 196, 241, 251, 275, 283, 293, 319, 341, 355, 373, 380, 387, 397, 409, 420, 430, 437, 444, 448, 456, 462; TP 27, 48, 85, 107, 159, 175, 192, 231, 259, 288, 291, 302, 339, 340, 358, 380, 406, 435, 467, 478, 509, 540; IC 6177.
costs.....	IC 6860
coal-mine explosions, review.....	IC 6753
major, description.....	IC 7900
coal-mine fatalities, annual data.....	B 69, 115, 196, 241, 251, 275, 283, 293, 319, 341, 355, 373, 380, 387, 397, 409, 420, 430, 437, 444, 448, 456, 462, 509, 525, 540, 549, 559; TP 27, 48, 85, 107, 159, 175, 192, 231, 259, 288, 291, 302, 339, 340, 358, 380, 406, 435, 467, 478, 509, 540; IC 6177, 7859.
costs.....	B 509, 525, 540, 549, 559; IC 7859
coal mining, methods.....	TP 574
Coalmont bed, coal, surface moisture, tests.....	RI 3811
cobalt, resources.....	MS 5
coke-oven accidents, annual data.....	TP 118, 151, 173, 206, 239, 371, 388
Cold Springs mine, mining methods and costs.....	IC 6673
Colorado Copper Co. properites, investiga- tion.....	RI 4869
Colorado Fuel & Iron Corp., Allen coal mine, fire-protection system.....	IC 7852
coal mines and quarries, 100-percent first- aid training program, plan and organi- zation.....	IC 7712
Colorado Minerals Co. calcite deposits, investi- gation.....	RI 4554
Colorado No. 3 copper claim, investigation.....	RI 4869
Colorado No. 9 copper claim, investigation.....	RI 4869
copper ores, tests.....	RI 3484
Copper Rivet copper claim, investigation.....	RI 4869
Costilla County, iron ore, reconnaissance.....	IC 7918
Cresson Consolidated Gold Mining & Milling Co., mining methods and costs.....	B 363; IC 6806
Cripple Creek district, pumping methods.....	IC 6882
rock-strata gases.....	B 105, 317; RI 2865

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Colorado, crude oil, analyses..... RI 5309
 bibliographies..... IC 7470, 7921
 Custer County, iron ore, reconnaissance..... IC 7918
 refractory clay, deposits..... RI 5553
 Delta County, iron ore, reconnaissance..... IC 7918
 refractory clay, deposits..... RI 5553
 Denver, Bureau of Mines experiment station,
 work..... B 175; DAR 1915
 Bureau of Mines pilot plant, tests, coal,
 results..... RI 4954
 lignite, results..... RI 4954
 coal testing..... B 5
 drill cores, storage and cataloging by Bu-
 reau of Mines..... IC 7777
 Denver Basin manganese ores, beneficia-
 tion..... RI 4845
 Denver region, subbituminous coals, friability,
 slacking characteristics, and carboniza-
 tion assays..... RI 3457
 low-temperature distillation tests..... RI 3342
 subbituminous slack, properties..... RI 3655
 size consist..... RI 3655
 Dolores County, iron ore, reconnaissance..... IC 7918
 Douglas County, refractory clay, deposits..... RI 5553
 Eagle County, iron ore, reconnaissance..... IC 7918
 East Gateway area, vanadium deposits, ex-
 ploration..... RI 3930
 El Paso County, iron ore, reconnaissance..... IC 7918
 refractory clay, deposits..... RI 5553
 Esmeralda lease, mining methods..... IC 7554
 explosives laws..... IC 7255
 production, annual data..... TP 69, 85, 107, 159,
 175, 192, 231, 259, 291, 313, 340, 358, 380, 406,
 426, 435, 467, 478, 509, 540, 558, 606, 627,
 636, 647, 658, 665; RI 3257, 3285, 3317, 3350,
 3414.
 storage inspections..... IC 7398
 transportation, regulations..... RI 2528
 Fairview Hill manganese deposits, investiga-
 tion..... RI 4589
 fluorite ores, concentration tests..... RI 4139
 fluorspar, deposits..... B 244
 mining..... RI 2480
 fluorspar ore, beneficiation, tests..... RI 3528
 Foursome Mining Co., Columbus mine, mining
 methods..... IC 7554
 Frederick bed, coal, plastic properties..... TP 692
 Fremont County, iron ore, reconnaissance..... IC 7918
 refractory clay, deposits..... RI 5553
 tungsten prospects, description..... IC 7748
 G-1 uranium mine, underground mining meth-
 ods..... IC 7908
 Garfield County, refractory clay, deposits..... RI 5553
 Garry Owen lease, mining methods..... IC 7554
 Gilpin County, iron ore, reconnaissance..... IC 7918
 gold, dredging..... B 127
 gold mines..... B 363
 gold ore, custom plants..... IC 6842
 flotation tests..... RI 3770
 gold-silver ore, containing lead, copper, and
 zinc, tests..... RI 3629
 gold-silver tailings, tests..... RI 3629
 Golden, Bureau of Mines experiment station,
 work..... B 175; DAR 1916-20
 pilot plant, gasifying subbituminous coal
 and lignite in..... RI 3901
 Golden Cycle mill, Golden Cycle Corp., milling
 methods and costs..... IC 6739
 Grand County, clay, deposits..... RI 5553
 Greasewood Flat oil field, crude oil, proper-
 ties..... RI 8174
 Great Eastern Mining Co., mining methods..... IC 7554
 Green River formation, Mahogany ledge, oil
 shales, properties..... RI 4825
 studies..... RI 4825

Colorado, Green River formation, oil shales,
 assaying..... RI 4769
 hydrogenation, study..... B 533
 mining technique..... B 556
 sampling, methods..... RI 4769
 thermal solution, process, investigation..... B 533
 Green River oil shale, analyses..... RI 5286
 autothermic retorting..... RI 5522
 oil yields..... RI 5081, 5521
 steam retorting, tests, results..... RI 5522
 Green River shales, data..... B 415
 Gunnison County, clay, deposits..... RI 5553
 iron ore, reconnaissance..... IC 7918
 tungsten prospects, description..... IC 7748
 gypsum industry..... B 247; TP 155; IC 6173
 Gypsum Valley district, vanadium deposits,
 exploration..... RI 3980
 Hiawatha field, petroleum, analyses..... RI 3358
 Highland Mary Mines, Inc., mining and mill-
 ing methods..... IC 7554
 Highway mine, subbituminous coal, low-tem-
 perature distillation tests..... RI 3342
 Hinkle Investment Co., Beaver and Belfast
 property, mining methods..... IC 7554
 Hinsdale County, iron ore, reconnaissance..... IC 7918
 Huerfano County, iron ore, reconnaissance..... IC 7918
 refractory clay, deposits..... RI 5553
 Humphreys Gold Corp., placer operations..... IC 6961
 Ida L. mine, mining methods..... IC 7554
 Idarado Mining Co., mining and milling meth-
 ods..... IC 7554
 iron ores, titaniferous, deposits..... B 64
 Iron Springs mining district, mining meth-
 ods..... IC 7554
 Jamestown fluorite deposits, investigation..... RI 4483
 Jefferson County, iron ore, reconnaissance..... IC 7918
 refractory clay, deposits..... RI 5553
 Jewell Tunnel zinc property, exploration..... RI 3983
 King Lease, Inc., Camp Bird mine, mining and
 milling methods..... IC 7554
 King Solomon tunnel, air, analyses..... IC 7606
 test..... IC 7608
 ventilation, method..... IC 7608
 Kokomo mining district, zinc-lead-silver ore,
 investigation..... RI 5138
 Lake County, iron ore, reconnaissance..... IC 7918
 tungsten prospects, description..... IC 7748
 La Plata County, clay, deposits..... RI 5553
 iron ore, reconnaissance..... IC 7918
 Larimer County, clay, deposits..... RI 5553
 iron ore, reconnaissance..... IC 7918
 tungsten prospects, description..... IC 7748
 Lark mine, mining methods..... IC 7554
 Las Animas County, iron ore, reconnais-
 sance..... IC 7918
 refractory clay, deposits..... RI 5553
 lead, resources..... MS 9
 Lead Carbonate mill, milling methods..... IC 7554
 Lead Carbonate mine, mining methods..... IC 7554
 lead-zinc ore, flotation tests..... RI 3425
 Leadville, manganese, production, possibili-
 ties..... IC 7125
 manganese ores, matte smelting..... RI 3659
 Leadville district, Adams shaft, investiga-
 tion..... RI 4518
 American shaft, investigation..... RI 4518
 Badger State shaft, investigation..... RI 4518
 Barry shaft, investigation..... RI 4518
 Blanche shaft, investigation..... RI 4518
 Capitol shaft, investigation..... RI 4518
 Chippewa shaft, investigation..... RI 4518
 Donovan shaft, investigation..... RI 4518
 Eclipse shaft, investigation..... RI 4518
 Eliza shaft, investigation..... RI 4518
 Elk shaft, investigation..... RI 4518

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Colorado, Leadville district, Evelyn shaft, investigation.....	RI 4518	Colorado, mineral industry, annual review... MY 1952	
Fairview No. 4 shaft, investigation.....	RI 4518	(vol. III)-1958 (vol. III)	
Gallagher shaft, investigation.....	RI 4518	Mineral Joe uranium mine, underground mining methods.....	IC 7908
Hayden shaft, investigation.....	RI 4518	mineral pigments, resources.....	B 370
Irene shaft, ventilation raise, by cage method.....	IC 7368	Mineral Point district, examination.....	RI 4508
Little Miami shaft, investigation.....	RI 4518	mining methods.....	IC 7554
Little Nell shaft, investigation.....	RI 4518	mining statutes.....	B 210
Mab shaft, investigation.....	RI 4518	Minnesota Creek coal area, coal, carbonizing properties.....	TP 721
mine shafts and underground workings, examination, mapping and sampling.....	RI 4518	petrography.....	TP 721
mining, effect of ground water upon.....	RI 4493	reserves.....	TP 721
Minnie Pump shaft, investigation.....	RI 4518	investigation, review.....	IC 7565
Modoc shaft, investigation.....	RI 4518	Moffat County, iron ore, reconnaissance.....	IC 7918
Negro Infant shaft, investigation.....	RI 4518	refractory clay, deposits.....	RI 5553
New Monarch shaft, investigation.....	RI 4518	molybdenum, deposits.....	B 111; EF 15
North Sunday shaft, investigation.....	RI 4518	molybdenum ore, flotation tests.....	RI 3370
No. 1 shaft, investigation.....	RI 4518	Monarch mining district, Madonna mine, lead-zinc ores, exploration.....	RI 5218
No. 3 shaft, investigation.....	RI 4518	monazite, deposits.....	TP 110
Ollie Reed shaft, investigation.....	RI 4518	Montezuma County, clay, deposits.....	RI 5553
Penfield shaft, investigation.....	RI 4518	iron ore, reconnaissance.....	IC 7918
Penn No. 1 shaft, investigation.....	RI 4518	Montrose County, clay, deposits.....	RI 5553
Penn No. 3 shaft, investigation.....	RI 4518	Mountain Queen mine, Eureka Mining & Milling Co., mining methods.....	IC 7554
Rattling Jack shaft, investigation.....	RI 4518	Nations Treasure fluorite deposit, diamond drilling.....	RI 4483
Resurrection No. 1 shaft, investigation.....	RI 4518	natural coke, analyses.....	B 22
Robert Emmet shaft, investigation.....	RI 4518	natural gas, analyses.....	B 486, 576
Sedalia shaft, investigation.....	RI 4518	statistics, 1936-50.....	IC 7644
Seventy-Six shaft, investigation.....	RI 4518	New Anniversary-Bucky pegmatite, investigation.....	RI 4939
Silver Spoon shaft, investigation.....	RI 4518	New Green Mountain mine, mining methods.....	IC 7554
South Sunday shaft, investigation.....	RI 4518	nonmetal-mine accidents, annual data.....	B 377, 398, 410, 422, 428, 435, 440, 450, 457, 461
Sunday No. 2 shaft, investigation.....	RI 4518	nonmetal-mine fatalities, annual data.....	B 377, 398, 410, 422, 428, 435, 440, 450, 457, 461; IC 7798, 7915.
Tenderfoot shaft, investigation.....	RI 4518	nonmetal-mine injuries, annual data.....	IC 7798, 7915
Triumph shaft, investigation.....	RI 4518	northern, coal mines, roof, falls.....	RI 3199
Tucson shaft, investigation.....	RI 4518	coal seams, data.....	IC 7442
Waterloo shaft, investigation.....	RI 4518	Northgate fluorspar deposits, investigation.....	RI 4106
Yankee Doodle shaft, investigation.....	RI 4518	occupational diseases, compensatory provisions.....	IC 7650
Leadville drainage tunnel, driving operations.....	RI 4493, 5284	oil pipelines, mileage, table.....	IC 7585
Leonard mine, oxide manganese ore, beneficiation.....	RI 4845	oil sands, porosities, lists.....	RI 4548, 5025
Little Fanny claim, mining methods.....	IC 7554	oil shale, analysis.....	RI 2152
Little Ida mine, lead-zinc ore, mining methods.....	IC 7554	batch retorting, in pilot plant, tests.....	RI 4874
Lost Day mine, mining methods.....	IC 7554	distillation.....	B 210, 315; RI 2141
manganese ore, amenability to sulfur dioxide leaching test.....	RI 4077	kerogen in, concentrating, with acetic acid gravity separation.....	RI 4872
beneficiation tests.....	RI 4117	hydrogenolysis study.....	RI 5458
reserves, estimate.....	MS 9	thermal decomposition study.....	RI 4744
manganosiderite ore, concentration.....	RI 3513	mining, proposed methods.....	IC 7218
Mayday Mining Co., mining methods.....	IC 7554	preheating, study.....	RI 4787
Mesa County, clay, deposits.....	RI 5553	properties.....	RI 5504
metals, production, annual data.....	MR 1924-31;	solubility, in petroleum solvents.....	RI 2313
	MY 1932-51, 1952 (vol. III); MYA 1932-35	specific heats, determination.....	RI 4151
metal mines, safety.....	IC 6275	test plant, description.....	B 315
metal-mine accidents, annual data.....	B 248, 264, 282, 292, 310, 320, 342, 362, 374, 377, 398, 410, 422, 428, 435, 440, 450, 457, 461; TP 40, 61, 94, 129, 168, 202, 224, 252, 286, 299, 331, 354; IC 6811.	treatment.....	B 210, 315
costs.....	IC 6713	use in operating N-T-U retorts.....	RI 5279
metal-mine fatalities, annual data.....	B 248, 264, 282, 292, 310, 320, 342, 362, 374, 377, 398, 410, 422, 428, 435, 440, 450, 457, 461; TP 40, 61, 94, 129, 168, 202, 224, 252, 286, 299, 331, 354; IC 6811, 7798, 7915.	oil-shale deposits.....	B 210
metal-mine inspection laws.....	B 75	description.....	RI 4269
metallurgical accidents, annual data.....	TP 124, 164, 201, 215, 256, 280, 297, 327, 350, 374, 395, 412, 430, 458, 474, 503, 532, 557.	oil-shale laboratory.....	COL
mine telephones, law.....	RI 2258	ores, low grade, tests.....	TP 283; RI 2206
mine timber used.....	B 235	ore-testing laboratories, list.....	IC 7695
minerals, production, annual data.....	MR 1924-31;	Osceola mine, mining methods.....	IC 7554
	MY 1932-51, 1952 (vols. I, III)-1958 (vols. I, III); MYA 1932-35.	Otero County, refractory clay, deposits.....	RI 5553

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Colorado, perlite, composition.....	RI 5199	Colorado, Saguache County, iron ore, reconnaissance.....	IC 7918
Pershing dump, manganese ore, beneficiation.....	RI 4845	St. Joe Mining & Milling Co., mining and milling methods and costs.....	IC 6976
Pershing mine, manganese ore, beneficiation.....	RI 4845	San Bernardo mine, mining methods.....	IC 7554
petroleum, analyses.....	B 29; RI 2235, 3358	San Juan County, iron ore, reconnaissance.....	IC 7918
pour point.....	RI 2290	tungsten deposits, study, results.....	IC 7731
properties.....	RI 3174	San Juan region, mining methods.....	IC 7554
viscosity.....	RI 2290	San Miguel County, iron ore, reconnaissance.....	IC 7918
petroleum laws.....	B 206	refractory clay, deposits.....	RI 5553
Philadelphia claim, mining methods.....	IC 7554	tungsten deposits, study, results.....	IC 7731
pilot plant, gasification tests.....	IC 7352	sandstones.....	B 124
pitchblende, deposits.....	B 70	sandstone copper deposits, mining operations.....	IC 7740
Pitkin County, clay, deposits.....	RI 5553	School of Mines, address to students.....	IC 6373
iron ore, reconnaissance.....	IC 7918	safety course.....	IC 6349
placer mining, districts.....	TP 591; IC 6611	semibituminous coal, analyses.....	B 22, 85, 119, 123, 193; TP 574
methods.....	IC 7013	shale oil, distillation, analyses.....	RI 2332, 2390
Poughkeepsie Gulch lead-zinc-silver district, examination.....	RI 4508	shale-oil plant, description.....	B 315
mining methods.....	IC 7554	Shenandoah-Dives mine, sulfide-oxide ore, concentration tests.....	RI 4283
Powder Wash field, petroleum, analyses.....	RI 3358	Shenandoah-Dives Mining Co., mining and milling methods.....	IC 7554
Pride of the West, Inc., mining and milling methods.....	IC 7554	shot-firing regulations.....	B 240
Prowers County, refractory clay, deposits.....	RI 5553	Silver Bell Mines Co., mining and milling methods.....	IC 7554
psilomelane, beneficiation.....	RI 3484	silver-gold ore, composition.....	TP 143
Pueblo County, iron ore, reconnaissance.....	IC 7918	silver ore, composition.....	TP 143
refractory clay, deposits.....	RI 5553	custom plants.....	IC 6842
Puritan mine, subbituminous coal, carbonizing properties.....	RI 3428	manganiferous, treatment.....	B 226
hydrogenation, neutral oil from, characteristics.....	TP 646	Silver Pick mine, mining methods.....	IC 7554
low-temperature distillation tests.....	RI 3342	Silverton area, mining methods.....	IC 7554
Pyramid copper group, investigation.....	RI 4869	Sinbad copper group, investigation.....	RI 4909
pyrite, production.....	B 184	Smuggler lead-zinc mine, investigation.....	RI 4906
pyrolusite, beneficiation.....	RI 3484	Sneffels-Telluride area, mining methods.....	IC 7554
quarry accidents, annual data.....	B 246, 263, 286, 288, 314, 325, 333, 366, 375, 376, 386, 399, 408, 416, 426, 432, 438, 447, 452, 458; TP 46, 73, 92, 128, 165, 193, 213, 245, 275, 295, 329, 353; IC 6811.	sources of steel, projects.....	RI 5801
quarry injuries, annual data.....	B 566; IC 7842, 7927	southern, coal seams, data.....	IC 7442
radium ores.....	B 104	South Burns shaft, Golden Conqueror Mines, Inc., mining methods and costs.....	IC 7094
Rangely oil field, core analyses.....	RI 4716	South Park mine, manganese ore, beneficiation.....	RI 4845
method.....	RI 4716	Southwest Metals Co., Michael Breen mine, mining methods.....	IC 7554
coring, drilling fluid used, properties.....	RI 4716	Spartan mine, manganese ore, beneficiation.....	RI 4845
development, history.....	RI 4761	State regulations, blasting on shift.....	IC 7165
Weber sandstone reservoir, description.....	RI 4761	hoisting men.....	IC 7067
oil in, characteristics, studies.....	RI 4761; IC 7506, 7616, 7643, 7659	internal combustion engines in mines.....	IC 7019, 7789
"Red Bed" copper deposits, mining operations.....	IC 7740	Sterling lease, mining methods.....	IC 7554
Red Mountain district, mining methods.....	IC 7554	subbituminous coal, analyses.....	B 22, 85, 19, 123, 193; TP 574
Revenue Tunnel Mines Co., mining methods.....	IC 7554	subbituminous-coal mines, hazards.....	IC 6862
Rifle, Bureau of Mines field office, work.....	IC 6060	subbituminous slack coal, storage in open pits.....	RI 8915
Bureau of Mines oil-shale project, mining program.....	RI 4269	sulfide ore, containing gold, silver, copper, zinc, and lead, tests.....	RI 8629
Oil-Shale Demonstration Plant, processing.....	RI 4771, 4943	sulfur, deposits.....	IC 7770
Oil-Shale Engineering Branch, gas-combustion process, development.....	RI 5044, 5119	Summit County, iron ore, reconnaissance.....	IC 7918
pilot-plant retorting activities.....	RI 5044, 5119	tungsten prospects, description.....	IC 7748
Oil-Shale Experiment Station, work.....	RI 5237	Summitville Consolidated Mines, Inc., mining and milling methods and costs.....	IC 6990
Oil-Shale Experimental mine, mining activities.....	RI 5044, 5119	Telluride Mines, Inc., mining and milling methods.....	IC 7554
Oil-Shale Mining Branch, work.....	RI 5044, 5119	Treasure Mountain Gold Mining Co., mining methods.....	IC 7554
Rio Blanco County, clay, deposits.....	RI 5553	tungsten ores, treatment.....	B 187
Robinson No. 1 coal mine, good safety record.....	IC 6130	Uncompahgre district, mining methods.....	IC 7554
rock gas, composition.....	B 105, 317; RI 2865	Union Carbide Nuclear Co., Salt Wash uranium mines, mining methods and costs.....	IC 7922
Ross Basin-Lake Como area, lead-zinc deposits, exploration.....	RI 5518	Upper Uncompahgre district, examination.....	RI 4506
Routt County, refractory clay, deposits.....	RI 5553	mining methods.....	IC 7554
		U.S. Vanadium Corp., mining methods and costs.....	B 890; IC 6662

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Colorado, vanadium ore, beneficiation.....	RI 3564	Columbite, deposits.....	IC 6328
deposits.....	B 70	occurrence.....	IC 7319
Victory claims, oxide manganese ores, benefici- cation.....	RI 4845	in pegmatites.....	RI 3404
western, vanadium district, exploration....	RI 3930	Columbite-tantalites, density, determination..	RI 5150
Wolf Tongue Mining Co., milling methods and costs.....	IC 6685	investigation, by fluorescent X-ray spectrog- raphy.....	RI 5150
mining methods and costs.....	IC 6673	by X-ray diffraction.....	RI 5150
zinc, resources.....	MS 12	relationship of density to composition, cal- culation.....	RI 5150
Colorado Copper Co. properties, Colo., investi- gation.....	RI 4869	Columbium, annual data.....	MY 1934-51, 1952 (vol. I)-1953 (vol. I)
Colorado Development Co., Calif., manganese ore, concentration tests.....	RI 4985	entropies.....	B 434, 476, 477
Colorado Fuel & Iron Corp., Colo., Allen coal mine fire-protection system.....	IC 7852	extraction, by liquid-liquid system, using methyl isobutyl ketone.....	RI 5239
coal mines and quarries, 100-percent first- aid training program, plan and organi- zation.....	IC 7712	heat and free energy of vaporization equa- tions.....	B 383
Wyo., iron-ore mine, 100-percent first-aid train- ing program, plan and organization..	IC 7712	heat content, data.....	B 476
Sunrise iron mine, block-caving methods....	IC 7759	properties.....	IC 6328
Colorado Minerals Co. calcite deposits, Colo., investigation.....	RI 4554	recovery from black sands.....	RI 5064
Colorado No. 3 copper claim, Colo., investiga- tion.....	RI 4869	resources, Arkansas.....	RI 5064
Colorado No. 9 copper claim, Colo., investiga- tion.....	RI 4869	separating tantalum from, by liquid-liquid extraction system, using methyl iso- butyl ketone.....	RI 5239
Colorado Plateau, uranium mines, mining meth- ods and costs.....	IC 7301, 7803, 7811, 7908, 7922	technology.....	B 556
uranium mining, description.....	IC 7726	uses.....	B 556; IC 7550
uranium-vanadium ore mine, mining meth- ods and costs.....	IC 7766	vapor pressure.....	B 383
Colorado School of Mines, first-aid course....	IC 6349	Columbium-tantalum-bearing minerals, in black- sand deposits, beneficiation studies...	RI 5105
mine rescue course.....	IC 6349	Columbium-zirconium alloys, study.....	RI 4658
petroleum safety course.....	IC 6349	Columbus, Ohio, Bureau of Mines experiment station, work... B 175; DAR 1918-21, 1923-25	
Colorimetric carbon monoxide detectors, descrip- tion.....	MC 33R	National First-Aid and Mine Rescue Con- test, 1951, conducting.....	IC 7658
M.S.A., description.....	MC 33R	State office building explosion.....	IC 7142R
Saf-CO-Meter, description.....	MC 33R	Columbus mine, Foursome Mining Co., Colo., mining methods.....	IC 7554
Colorimetric carbon monoxide indicator, Nation- al Bureau of Standards, descrip- tion.....	B 557	Columbus No. 4 mine, Ky., coal, carbonizing properties and petrography.....	TP 672
Colorimetric method, for determining ben- zene.....	RI 3287, 3293	Colville district, Stevens County, Wash., copper, mine production.....	IC 7872
for determining low concentrations of pine oil in water.....	RI 4990	gold, mine production.....	IC 7872
for determining thiophene in synthesis gas..	RI 4753	lead, mine production.....	IC 7872
Colstrip mine, Mont., coal, hydrogenation, neu- tral oil from, characteristics.....	TP 646	silver, mine production.....	IC 7872
washability data.....	RI 5103	zinc, mine production.....	IC 7872
Colta coal washery, Ala., table middlings, classi- fication.....	RI 3448	Comanche oil-gas field, Okla., underground problems.....	OKL 1
Columbia manganese deposit, Va., investiga- tion.....	RI 4602	Combination silver-tungsten mine, Mont., in- vestigation.....	RI 4914
Columbia mine, Columbia Steel Co., Utah, safety practices.....	IC 6743	Combined Metals Reduction Co., Casleton mine, Nev., lead-zinc-silver ore, mining and milling methods.....	IC 7586
Utah, coal, hydrogenation, neutral oil from, characteristics.....	TP 646	Combustibles, in explosives, determining.....	B 319
petrography.....	TP 573	in manholes, investigation.....	RI 3109, 3192, 3213, 3260, 3321, 3375, 3383, 3412, 3433, 3454, 3490, 3496 3537, 3602, 3604, 3669.
properties.....	M 5	in rocks, determining.....	TP 212
Columbia mining district, Utah, oxide manga- nese ore, concentration tests.....	RI 4466	Combustion, anthracite, study.....	IC 7699
Columbia River magnetite sands, Oreg., investi- gation.....	RI 4011	coal, American Society for Testing Mate- rials laboratory tests, significance....	IC 7619
Wash., investigation.....	RI 4011	coal utilization for, studies.....	IC 7756, 7794
Columbia River Valley, air movements.....	B 453	coke, American Society for Testing Materials laboratory tests, significance.....	IC 7619
meteorological investigations.....	B 453	incomplete, in natural-gas heaters.....	TP 362
petrography and climate.....	B 453	solid fuels, in thin beds.....	B 563
Columbia Steel Co., Utah, safety practices....	IC 6743	spontaneous, aluminum dust.....	TP 152
Columbian ilmenite, recovery from bauxite ores.....	RI 5064	coal.....	TP 16, 65, 170, 172, 235, 311, 326, 409; IC 7074, 7235
Columbian Iron Works, Tenn., cupola practices, electrolytic manganese, tests, re- sults.....	RI 4861	studies, fuels.....	IC 7367, 7616, 7659, 7717
		underfeed.....	B 378
		Combustion characteristics, packaged fuel, con- taining anthracite fines.....	RI 3882
		containing bituminous coal.....	RI 4797
		Combustion conditions, effect on temperatures in horizontal zinc retort.....	RI 3334

R. Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Combustion Engineering-Superheater, Inc., Tenn., welding-rod coatings, electrolytic manganese, tests, results.....	RI 4861	Concentration classifier, open bottom, tests with.....	RI 3789
Combustion gases, research.....	IC 7804	Concentration process, description.....	RI 2921
thermodynamics.....	RI 4806, 4938, 4958, 4983, 5035	Concentration table, improved laboratory, description.....	RI 3831
review.....	RI 5006	Concentration tests, bastnasite ores.....	RI 4919
thermodynamic properties, determination.....	RI 4806	cerium mineral.....	RI 4919
Comet Coalition lead-zinc deposit, Nev., investigation.....	RI 4541	chromite ore.....	RI 5172
Comet mine, Ariz., oxide manganese ore, beneficiation.....	RI 5024	cinnabar ore.....	RI 4620
Commerce Department, transfer of Bureau of Mines to.....	DAR 1925	copper ores.....	RI 4927
Commercial buildings, heating, fuels, consumption, 1935-51.....	IC 7657	results.....	RI 5245
Commercial fertilizers, production, in lead blast furnace.....	RI 3242	copper-zinc ore.....	RI 4927
Commercial gases, annual data.....	MY 1935	lead sulfide slime.....	RI 5444
Commodity Credit Corporation, activities.....	MY 1952	lead-zinc-silver ores.....	RI 4927
(vol. I), 1953 (vol. I)		magnetite ore.....	RI 4984
Communication, underground, radio, tests.....	RI 2407, 2599, 2651, 4294	manganese ores.....	RI 4767, 4985, 5022, 5163
through earth strata, tests.....	TP 433	mercury ores.....	RI 4620
Commutator brushes, graphite for, use.....	IC 6123	oxide manganese ores.....	RI 4389, 4439, 4441, 4466, 4524, 4545, 4551, 4599, 4754, 4780, 4785, 4818, 4844, 4846, 4848, 4849, 4884, 5023.
Comox coal area, British Columbia, Canada, No. 2 bed, coal, carbonizing properties.....	B 510	oxidized antimony ores.....	RI 4927
Compartments, explosion proof, covers, design.....	IC 6267	silicate manganese ores.....	RI 4754, 4849
Compensation-insurance premiums, as measure of cost of metal-mine accidents.....	RI 2625	zinc-iron ore.....	RI 4442
Compensation provisions, occupational diseases.....	IC 7650	zinc-lead ore.....	RI 4927
Compressed air, for blasting granite, use.....	RI 2154	Concentrators, centrifugal, types.....	TP 457
for operating coal-mining equipment.....	RI 3196	dry-ore, description.....	RI 4286
for operating mine ventilation doors.....	RI 2273	nonferrous-metal, accidents, prevention.....	NMP 2
for recovering oil.....	B 148; RI 2778	employment, data.....	NMP 1
leaks, geophone for detecting.....	RI 2380	injury experience.....	NMP 1
work in, dangers.....	RI 2670	ore, fine grinding in.....	IC 6757
Compressed-air blowers, for mine ventilation.....	RI 2154, 2309	pilot mill, units, Boulder City, Nev., description.....	RI 4123
Compressed-air illness, treatment.....	TP 285	Concentrator waste sand, use in ceramics, study.....	RI 5216
with helium-oxygen mixtures.....	RI 2670	Conchollar mill, Nev., gold-silver ore, tests.....	RI 4790
Compressed-air line, high pressure, explosion.....	RI 2218	Concordia electric cap lamps, description.....	B 131
Compressed-air receivers, large-capacity, for underground mines, summary of published articles.....	IC 7541	Concrete, lightweight, industrial insulation with.....	IC 7263
Compressed-air systems, carbon monoxide in, formation.....	RI 4465	lightweight aggregates for.....	IC 7195
Compressibility, of natural gas, at high pressure.....	TP 131	penetration, by solutions.....	RI 3047
Compression plants, residual gas, gasoline in, recovery.....	TP 232	use, for fireproofing mine shafts.....	IC 7075
Compressors, air, permissible, lists.....	B 543; IC 7569, 7722	Concrete mixers, permissible, list.....	IC 6942
permissible electric, description.....	RI 3309	Concrete reservoirs, for oil storage.....	B 155
Compressor and utility station, mobile, construction.....	RI 4709	Concrete stoppings, in coal mines, to stop explosions.....	B 99, 345
operation.....	RI 4709	strength, tests.....	RI 3036
Comstock district, Nev., ores, flotation, tests.....	RI 3275	Concrete supports, for mine roof.....	B 25
Comstock lode, Nev., ore, analysis.....	RI 2883	Condenser plates, electrical, manganese alloys for.....	RI 3689
tallings, re-treating.....	RI 2883	Conduction, of heat, modes.....	B 18
Concentrates, magnetite, oxidation.....	RI 4728	Conductivity, electric, metals.....	B 77
pilot-plant production.....	RI 3980	Conductors, electric, effect of acid mine water.....	TP 58
phosphorus content, reduction, investigations.....	RI 4199	metallic, effect on line radio underground.....	RI 2682
thallium in, determination, spectrochemical method.....	RI 4461	Conduits, underground, gases and explosions.....	RI 3337, 3375, 3383, 3412, 3433, 3454, 3490, 3496, 3537, 3602, 3604, 3669.
zinc, reduction, with methane gas, pilot-plant operation.....	RI 4730	Cone Butte district, Mont., mineral deposits, investigation.....	IC 7544
Concentrating mills, lead-zinc ore, efficiency.....	TP 41, 95, 301	Confederate region, Mont., mineral deposits, investigation.....	IC 7592
Concentration, centrifugal, principles.....	TP 457	Conglomerate mine, Calumet & Hecla Consolidated Copper Co., Mich., mining methods and costs.....	B 390; IC 6526
gravity, phosphatic sands.....	RI 3018	Conglomerate ore, milling methods and costs.....	IC 6394
magnetic, study.....	RI 2669R	Congress mine, Wash., nickeliferous ore, flotation tests, results.....	RI 5261
pneumatic, study.....	RI 2669R	Conisaurum Mines, Ltd., Ontario, Canada, milling methods and costs.....	B 363; IC 6541
		Conifers, in coal formations, study.....	TP 631
		Conjunctivitis, caused by exposure to ultraviolet rays, caution.....	RI 2173
		Conklin process, for coal washing.....	RI 2669R

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Connecticut, arsenic, production.....	EP 17	Consolidated No. 7 mine, Ill., coal, washing characteristics.....	TP 724
Atlas Sand, Gravel & Stone Co., Avon Mountain trap-rock quarry, quarrying methods and costs.....	IC 6912	Consolidated Rock Products Co., Calif., mining methods and costs.....	IC 6607
Farmington plant, sand and gravel, mining methods and costs.....	IC 6676	Consolidation Coal Co., No. 261 mine, W. Va., shaft-sinking methods and costs.....	IC 6602
quarrying methods and costs.....	IC 6912	Consolidation No. 63 mine, W. Va., coal, microscopy.....	TP 564
barite, deposits.....	IC 6221	petrography.....	TP 564
Continental Compressed Air Power Co., hydraulic air compressor, installation, review.....	IC 7683	properties.....	M 5
dolomite, deposits.....	IC 7226	Consolidation No. 155 mine, Ky., coal, carbonizing properties.....	TP 572
explosives, laws.....	IC 7251	petrography.....	TP 572
production, annual data.....	TP 69,	Consolidation No. 204 mine, Ky., coal, properties.....	M 5
85, 107, 159, 175, 192, 231, 259, 291, 313, 340,		Consolidation No. 251 mine, W. Va., coal, properties.....	M 5
358, 380, 406, 426, 435, 467, 478, 509, 540, 558,		Construction industry, NRA code.....	MY 1934
606, 627, 636, 647, 658, 665; RI 3257, 3285,		Consumable electrodes, fabrication, processes.....	RI 5247
3317, 3350, 3414.		requirements, general.....	RI 5247
storage inspections.....	IC 7398	Consumable-electrode arc-melting furnace, description.....	RI 5247
feldspar, deposits.....	B 92	Consumes Gold Dredging Co., Calif., scheelite concentrates, treatment tests, results.....	RI 5087
ore-dressing studies.....	RI 3425	Consumption, miners', studies.....	TP 545, 552; PHS 85
metal-mine accidents.....	B 410;	Contact manganese mine, N. Mex., exploration.....	RI 3969
TP 61, 94, 129, 202, 224, 252, 286, 299		Contact mine, Ariz., oxide manganese-silver ore, beneficiation.....	RI 5024
metal-mine fatalities, annual data.....	B 410;	Calif., mercury problem.....	IC 7206
TP 61, 94, 129, 202, 224, 252, 286, 299		Contact potential, in electrostatic separation, discussion.....	RI 3667
mica, deposits.....	IC 7617	Contact process, clays, oil clarifying.....	IC 7475
minerals, production, annual data.....	MR 1924-31;	for manufacture of sulfuric acid.....	B 184
MY 1932-51, 1952 (vols. I, III)-1958 (vols. I, III); MYA 1932-35.		Contact, short-circuiting, electrical protective device, for coal mines, description.....	RI 4759
mineral industry, annual review.....	MY 1952	tests.....	RI 4759
(vol. III)-1958 (vol. III)		Contaminants, atmospheric, measuring, methods.....	IC 7210
mineral pigments, resources.....	B 370	protection against.....	IC 7236
New Haven Trap Rock Co., Plainville trap-rock quarry, quarrying and crushing methods and costs.....	IC 6920	Contests, effect on mine safety.....	IC 6151
nonmetal-mine accidents, annual data.....	B 410,	first aid, conducting, rules.....	TP 579;
422, 428, 435, 440; TP 40		MC 15; RI 2186, 2294; IC 6090	
occupational diseases, compensatory provisions.....	IC 7650	first aid and mine rescue, conducting.....	TP 579
oil pipelines, mileage, table.....	IC 7585	Continental colliery, Pa., deep-well pumps, performance records.....	RI 4656
ore-testing laboratories, list.....	IC 7695	Continental Compressed Air Power Co., Conn., hydraulic air compressor, installation, review.....	IC 7683
peat, analyses.....	B 16	Continental mine, Pa., coal safety achievements and operating methods.....	IC 7468
Pennsylvania anthracite, shipments.....	SFA 1-I,	Continental No. 1 uranium mine, Continental Uranium, Inc., Utah, mining methods and costs.....	IC 7801
	2-I, 3-I	Contra Costa County, Calif., asbestos, deposit.....	IC 7860
Portland beryl-mica district, investigation.....	RI 4425	Controlled Materials Plan, iron, regulations.....	B 556
quarry accidents, annual data.....	B 246,	steel, regulations.....	B 556
263, 286, 288, 314, 325, 338, 366, 375, 376, 386,		Converters, annular-volume, catalytic reactions occurring within narrow temperature limits, design.....	IC 7587
399, 408, 416, 426, 432, 438, 447, 452, 458;		effectiveness, calculation.....	IC 7587
TP 46, 73, 92, 128, 165, 193, 213, 245, 275,		basic-lined, side-blown, dephosphorizing ferrophosphorus in.....	RI 5102
295, 329, 353; IC 6811.		dephosphorizing phosphor iron in.....	RI 5102
quarry fatalities, annual data.....	B 554;	description.....	RI 5102
IC 7842, 7927		inner-catalyst, catalytic reactions occurring within narrow temperature limits, design.....	IC 7587
quarry injuries, annual data.....	B 554,	effectiveness, calculation.....	IC 7587
566; IC 7842, 7927		outer-catalyst, catalytic reactions occurring within narrow temperature limits, design.....	IC 7587
rare alkali deposits.....	IC 7232	effective, calculation.....	IC 7587
sandstones.....	B 124		
siderite, grinding characteristics.....	RI 3704		
Stanley Works, basic open-hearth furnace practice, electrolytic manganese, tests, results.....	RI 4861		
tests of electrolytic manganese in low-carbon steel.....	RI 3911		
Conowingo tunnel system, proposal, for draining anthracite mines.....	545-547, 560		
Conrad Hill mine, N.C., copper-gold deposit, investigation.....	RI 4290		
Consistometer, use.....	RI 3469R		
Consolidated Cortez silver mine, Nev., mining methods and costs.....	B 356, 357, 390; IC 6327		
Consolidated iron deposit, N. Mex., exploration.....	RI 3988		
Consolidated No. 1 iron deposit, N. Mex., exploration.....	RI 3988		

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Converters, plate, for catalytic reactions occurring within narrow temperature limits, design..... IC 7587
effectiveness, calculation..... IC 7587
Converter slag, copper in, forum..... RI 2985
flotation tests..... RI 3068
Converto process, for cleaning and dewatering coal-washery slurries, Germany, description..... IC 7660
Conveyors, coal mines, installation..... RI 3843
description..... B 343
permissible, lists..... B 543;
IC 6942, 7007, 7110, 7158, 7207, 7240, 7283, 7316, 7432, 7465, 7569, 7606, 7722, 7840.
Conveyor belts, fire-resistant, tests for..... S 28
Conveyor-belt haulage, in sand and gravel excavation..... IC 6875
Conveyor loading, in coal mines, hazards..... IC 6300
Conweigh loaders, in metal mines, use..... RI 2300
Conyer, W. M., fluorite property, Ky., investigation..... RI 4646
Cook and White bed, N. Mex., coal, analyses..... RI 4814
coking properties..... RI 4814
petrographic composition..... RI 4814
Cook Inlet, Augustine Island, Alaska, pumice, deposits..... RI 4932
Cookeite, deposits, New England..... IC 7232
Cooks Peak mining district, N. Mex., White Eagle fluorspar mine, exploration..... RI 3903
Cooling, mine air..... RI 2554;
IC 6136
Cooling systems, effect on gasoline evaporation losses..... RI 2531
Coon Hollow mine, Ark., zinc deposits, drilling records..... RI 4343
Cooperative Refinery Association Hicks Unit and No. 2 Unit project, Okla., oil sands, waterflooding..... RI 4795
Cooperative Refining Association Rock Unit 3, Rock oil field, Kans., discussion..... IC 7831
Coos Bay area, Oreg., black-sand deposits, chromite-bearing, exploration..... RI 4001
Coos Bay coal field, Oreg., coal, chemical analyses..... TP 707
Gibbs, L. B., mine, coal, washability..... TP 707
investigation, review..... IC 7352,
7417, 7446, 7518
Southport mine, coal, washability..... TP 707
Coos County, Oreg., manganese deposits, investigation..... RI 5369
Coosa coal field, Ala., investigation..... TP 719
review..... IC 7417, 7446, 7565
Coosa tin deposits, Ala., investigation..... RI 4704
Coppee coke oven, description..... TP 50
Copper, annealing..... RI 2926
annual data..... MR 1924-31,
MY 1932-51, 1952 (vol. I)-1958 (vol. I); MYA 1932-35.
as fertilizer, use..... IC 6830
buying and selling..... TP 83
chloride volatilization..... B 211
deficiency, effects on animals, review of literature..... IC 7666
effects on plants, review of literature..... IC 7666
deposits, development..... MY 1942; IC 7822
foreign..... MS 6
geology..... B 405
investigation..... MY 1942,
1945; RI 4088, 4108, 4110, 4120, 4170, 4293, 4362, 4617, 4665, 4666, 4691, 4694, 4701, 4706, 4718, 4791, 4850, 4890, 4906, 4986, 5343.
mining operations..... IC 7740
United States..... MS 6
effect on electrodeposition of manganese..... RI 3872
entropies..... B 350, 394, 434, 476, 477
exports, United States..... MS 6
Copper, fusion, heat..... B 393
gaseous, specific heat, calculation, from spectroscopic data..... RI 3341
gray, microscopic analysis..... RI 8236
health hazards, review of literature..... IC 7666
heat and free energy of vaporization equations..... B 388
heat content, data..... B 476
ignition temperature, effect of oxygen pressure..... RI 2507, 2521
imports, United States..... MS 6
in chalcopyrite ore, estimation, by spectrographic analysis..... RI 3870
in coal, occurrence..... TP 669
in converter slag, form..... RI 2985
in cyanidation, study..... TP 494
in gold-silver ores, disposal, during cyanidation..... RI 3425
international aspects, economic study..... McG-H
losses..... B 73, 81; UTA B 9
marketing, practice..... TP 83
metallurgical processes, description..... MS 6
metallurgy, Bureau of Mines work, annual review..... RI 3357, 3419, 3480, 3547, 3600
research, outlook..... RI 3228
studies..... RI 3228, 3306, 3331, 3340
mine production, Bossburg district, Wash..... IC 7872
Chewelah district, Wash..... IC 7872
Colville district, Wash..... IC 7872
Deer Trail district, Wash..... IC 7872
Kettle Falls district, Wash..... IC 7872
Metaline district, Wash..... IC 7872
Newport district, Wash..... IC 7872
Northport district, Wash..... IC 7872
Orient district, Wash..... IC 7872
Springdale district, Wash..... IC 7872
Valley district, Wash..... IC 7872
mining methods..... MS 6; IC 7502
outlook..... B 556
postwar..... MY 1943, 1944
oxidized, in ores, determining..... RI 3228
precipitation, by sponge iron, tests, results..... B 519
from acid mine water..... RI 3746
on sponge iron..... B 281; RI 2812
Premium Price Plan, 1942-47, review..... IC 7536
primary, annual data..... MY 1947-51,
1952 (vol. I)-1958 (vol. I)
producers, foreign..... MS 6
production, by electrolytic method..... RI 3483
in lead blast furnace..... RI 3242
summarized data..... EP 1
Japan..... MTN 26
world..... B 556; MS 6
prospecting..... B 405
recovery, by electrothermal-electrolytic method..... RI 3483
from Great Gossan Lead, Va., pyrrhotite ore..... RI 4945
reserves..... B 556; WPA 12
resources..... GS 3
secondary, annual data..... MR 1924-31;
MY 1932-51, 1952 (vol. I)-1958 (vol. I)
soluble, extraction from leached ores..... TP 453,
472; RI 3078
acceleration..... TP 472
specific-heat equations..... B 371
technology..... B 556
uses..... B 556; RI 3228
in treating diseases, review of literature..... IC 7666
vapor pressure..... B 383
waste, reduction..... B 47
world data, chart..... MY 1936
Copper alloys, freezing points..... B 122
melting points..... TP 60

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Copper-bismuth-lead-silver-zinc deposits, investigation	RI 4170	Copper-manganese system, properties	IC 6768
Copper bullion, estimation of gold, silver, and platinum	RI 2228	Copper matte, low-grade, recovery of elementary sulfur from	B 406
sampling	B 122	Copper mines, blasting operations, safety practices	IC 7742
Copper Bullion claims, Knight Island, Alaska, investigation	RI 4986	block-caving methods	IC 7890
Copper Butte mine, Ariz., exploration	RI 3914	development	B 405
Copper Canyon lead-zinc deposit, Nev., investigation	RI 4774	diamond drilling	RI 3914, 4316, 4349, 4364, 4544, 4579, 4860
Copper Canyon mining district, Nev., gold-silver ore, tests	RI 3765	methods	B 356; IC 6708
Copper carbonates, flotation tests	UTA TP 5	drill sampling	B 356
Copper Center ore, Kasaan Peninsula, Alaska, beneficiation	RI 5312	drilling practices, safety and efficiency	IC 7742
Copper Chief mine, Nev., oxidized copper ore, leaching	RI 4952	electronic mine-shaft signal system	IC 7318
Copper-cobalt ores, ore-dressing methods	RI 4279	employment, annual data	MY 1938-46
Copper-cobalt oxide ores, electrometallurgy	MTN 47	estimating practice, examples	B 356
hydrometallurgy	MTN 47	examination	RI 5320
Copper company, accident-prevention work	IC 6059	explosives, handling	IC 7356
Copper concentrates, flash roasting, tests	RI 3340	fire, lessons	B 188
Copper concentrators, design, trends	IC 6866	first-aid organization	RI 2193
Copper-constantan thermocouple, calibration, below zero	RI 3077	geologic factors affecting block caving, study	RI 5336
Copper districts, investigation	RI 4384, 5187	ground movement	B 295
Copper ferrites, heat capacities, low-temperature	RI 5502	health conditions	B 257
preparation	RI 3228	high-pressure air line, explosion	RI 2218
properties	RI 3228	investigation	RI 3873, 3896, 3914, 4006, 4015, 4023, 4026, 4029, 4046, 4203, 4221, 4341, 4358, 4395, 4492, 4732, 4989
Copper Flat zinc deposit, N. Mex., exploration	RI 4228	miners' consumption, study	TP 260
Copper gauzes, for flame safety lamps, safety	TP 228; RI 2124	mining methods and operations	IC 7848
Copper Giant deposits, Ariz., investigation	RI 4850	mining methods and practices	IC 7786
Copper-gold deposit, investigation	RI 4290	Morenci Branch, Phelps Dodge Corp., Ariz., safety program, use of visual aids	IC 7598
Copper-gold mine, investigation	RI 4689	in	IC 7598
Copper-gold ore, chloride volatilization tests	RI 4612	visual aids, equipment	IC 7598
flotation tests	RI 4612	natural ventilation	TP 516
leach-precipitation-flotation tests	RI 5342	open-cut, blasting methods	B 273
tests	RI 4790	drilling methods	B 273
Copper-gold-silver deposits, investigation	RI 5139	mining methods and costs	B 298; IC 6234
Copper-gold-silver ore, beneficiation	RI 3569	open-pit, mining methods	IC 7888
mining methods and costs	B 356, 357, 390; IC 6413	mining methods and costs	IC 7911, 7929
Copper-gold-silver-zinc ore, mining methods and costs, Holden mine, Howe Sound Co., Wash.	IC 7870	mining methods and practices	IC 7837
Copper Hill mine, Calif., copper-zinc ore, concentration tests	RI 4927	pay-roll methods	IC 6822
investigation	RI 4760	purchasing department, procedure	IC 6623
Copper industry, employment opportunities	WPA 12	safety conditions	B 257
growth	MS 6	safety organizations	TP 452; RI 2260
major trends	WPA 12	safety posters	IC 6827
Mineral Policy Committee, recommendations	MY 1935	safety practices	IC 7501
NRA code	MY 1934, 1935	codes of	IC 7742
war regulations	MY 1942	shaft sinking, methods and costs	B 357
Copper King copper-gold-silver deposits, Wyo., investigation	RI 5139	stench warning tests	RI 3850
Copper King mine, Nev., oxidized copper ore, flotation	RI 4952	subsidence	B 295
leaching	RI 4952	supply department, procedure	IC 6623
N. Mex., investigation	RI 4046	timekeeping system	IC 6822
Copper-lead concentrate, recovery of cadmium and germanium from, study	RI 5190	undercut block-caving method	B 390; IC 6350
Copper-lead deposits, argentiferous, exploration	RI 3940	underground sampling, methods and costs	B 357
Copper-lead-tin alloys, corrosion tests, results	B 555	ventilation	B 204, 330; TP 516
Copper-lead-zinc deposits, examination	RI 5313	ventilation doors, compressed-air operated	RI 2273
Copper leg wires, in explosive mixtures, tests	RI 2983	Copper-mine accidents, annual data	B 243, 264, 282, 292, 310, 320, 342, 362, 374, 377, 398; TP 40, 61, 94, 129, 168, 202, 224, 252, 286, 299, 331, 354, MC 51; MY 1938-46.
Copper-manganese alloys, heat contents above 25° C	RI 3835	prevention	TP 229
high-damping, fabrication, commercial	RI 5127	record	RI 2259
melting and casting	RI 5127	Copper miners, effects of technologic changes on	WPA 12
		Copper minerals, dissolution	RI 3228
		bibliography	RI 3228
		in oxidized ores, determining, by sulfur dioxide method	TP 198
		dissolution	RI 2934
		oxidized, flotation	RI 3419, 3480
		Copper mining, caving methods, description	B 390; IC 6107
		costs	B 405

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Copper mining, open-cut, discussion..... WPA 12
 review..... B 433
 Copper-mining methods, summary..... B 405
 underground, study..... WPA 12
 Copper-molybdenum property, exploration... RI 4016
 Copper-nickel-cobalt deposit, exploration... RI 3950
 Copper-nickel deposits, investigation..... RI 4431
 Copper-nickel mine, investigation..... RI 4895, 5114
 Copper-nickel mineralization, investigation... RI 5177
 Copper-nickel ore, flotation tests, results... RI 5261
 investigations..... RI 3419
 mining 55 tons, costs..... IC 7029
 Copper ores, analyses..... B 81; RI 3106, 3288, 3290
 annual data..... MR 1924-31;
 MY 1932-46; MYA 1932-35
 assaying, methods and costs..... B 107; TP 198
 blasting methods..... TP 383
 classification..... TP 143; RI 2228
 concentration, costs, trends..... IC 6792
 methods..... B 392; IC 6460, 6467, 6792
 concentration tests..... RI 4927
 results..... RI 5245
 cyanidation..... TP 494
 flotation..... B 205, 392;
 TP 182; RI 2203, 2811, 2921, 2985, 3068
 grade, study..... WPA 6
 heap leaching, factors..... IC 6425
 hydrometallurgy..... B 260
 leaching..... B 321, 329;
 TP 198, 312, 441, 472, 473, 486, 487, 498; RI
 2984, 3050, 3073, 3228, 3370; IC 6303, 6357.
 dissolution, in ferric sulfate solutions... B 321;
 RI 2967
 in sulfuric acid..... B 321; RI 2967
 of bornite..... TP 486
 of covellite..... TP 487
 sulfur dioxide processes, description... RI 2350
 mill products, mineralogical distribution... TP 533
 milling, methods and costs... B 392; IC 6241, 6261,
 6285, 6358, 6394, 6404, 6479, 6489, 6544, 6550,
 6573, 6619.
 research..... RI 2878
 mining methods and costs... B 107, 298, 306, 356,
 357, 390; IC 6145, 6149, 6167-6169, 6240, 6247,
 6250, 6260, 6289, 6412, 6440, 6464, 6503, 6515,
 6526, 6565, 6666, 6736, 6815.
 nonsulfide, leaching, with sulfur dioxide... TP 312;
 RI 2350
 ore dressing..... B 419; WPA 12
 oxide-sulfide, treatment, by segregation pro-
 cess..... RI 5501
 oxidized, flotation..... RI 2811, 4952
 leaching..... RI 3106, 4952
 treatment, by segregation process... RI 5501
 precious metals in, estimating..... RI 2228
 prospecting..... B 107, 356
 sampling..... B 107, 356; TP 86
 shattering, explosive..... RI 3201
 silver, yield..... IC 6773
 smelting, in electric furnace... B 77, 81; IC 6955
 manganese distribution..... RI 3340
 soluble copper, extraction, from leached
 ores..... TP 453, 472; RI 2073
 stripping, methods and costs..... B 298
 tailings, recovery of gold..... IC 7085
 tests..... RI 3484
 treatment, progress..... TP 499
 value, effect of silver price on..... IC 6773
 volatilization..... B 211
 See also Porphyry copper ores.
 Copper oxides, heat and free-energy-of-forma-
 tion values, tabulation..... B 542
 Copper-palladium-gold-silver concentrates, anal-
 ysis..... RI 2731
- Copper poisoning, possible sources, review of
 literature..... IC 7666
 treatment, review of literature..... IC 7666
 Copper powder, explosibility..... RI 3722
 flammability..... RI 3722
 Copper project, exploration..... RI 3973
 Copper properties, exploration... RI 3873, 3939, 4013,
 4025, 4806
 Copper prospects, investigation... RI 3873, 4038, 4357,
 4823
 Copper-pyrite deposit, investigation..... RI 4397
 Copper Queen concentrator, Phelps Dodge
 Corp., Ariz., mill products, mineralog-
 ical distribution..... TP 583
 milling methods and costs..... IC 6404
 Copper Rivet copper claim, Colo., investiga-
 tion..... RI 4969
 Copper-silver ore, mining methods and costs... B 356,
 390; IC 6307
 Copper slags, magnetite in, determining... RI 3120
 Copper smelters, accidents, prevention... IC 7061
 flue dusts, composition..... RI 2871
 treatment, methods..... RI 2871
 sulfuric acid, production from..... B 184
 Copper sulfate, crystallization, from solu-
 tions..... TP 453
 reaction, in flotation of sphalerite... RI 2970
 thermodynamic properties..... B 406
 Copper sulfate method, for determining metallic
 iron and oxygen in sponge iron... RI 3824
 Copper sulfate solutions, purification..... TP 359
 tests..... TP 359
 Copper sulfides, flotation..... RI 2669R
 Copper sulfide ore, flotation tests..... RI 3370
 hydrometallurgy..... RI 3228
 milling methods and costs..... B 392; IC 6343
 Copper-sulfur deposit, exploration... RI 3042
 Copper tailings, leaching, to obtain iron... B 396
 Copper-tin mine, investigation..... RI 4378
 Copper-titanium alloys, data..... IC 7381
 Copper tungsten mine, exploration... RI 4208
 Copper-zinc alloys, smelting furnaces... B 73
 Copper-zinc deposits, investigation... RI 4214, 4504
 Copper-zinc-lead mine, investigation... RI 4344
 Corbus zinc-lead tract, Kans., churn drilling... RI 4398
 Copper-zinc mines, investigation... RI 4124, 4760
 mining methods and practices... IC 7788
 Copper-zinc ore, concentration tests... RI 4927
 Penn mine, Calif., tests..... RI 4224
 water samples, tests..... RI 4224
 Copper-zinc sulfide ores, metallurgy... MTN 47
 Copper-zirconium alloys, production, litera-
 ture on..... IC 7341
 study..... RI 4668
 Cordeau Bickford, effect of temperatures of
 liquid-oxygen explosives on..... RI 2619
 in open-cut copper mines, use... B 273
 Corduroy, saving gold with..... IC 7085
 Core, in fuse, analysis..... RI 3235
 oil-sand, analysis, method..... RI 3481
 Core barrel, pressure, for petroleum reservoirs,
 development..... RI 3481, 3501
 Core drills, for marble prospecting, use... B 106
 for oil-field prospecting, use... B 243
 for ore samples..... B 356
 for salt beds..... IC 6156, 6679
 Core samples, collection and examination... RI 3616
 Coring bits, cast-set, performance... RI 4233
 Cornstarch, explosibility..... RI 4725
 oil-treated, explosibility..... RI 4725
 Cornwall district, Pa., magnetite ore, concen-
 tratability..... RI 3229
 Corona, discharge, effect on petroleum... TP 375
 Corona bed, Ala., coal, screening tests... RI 3157
 washing tests..... RI 3157

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Coronado Copper & Zinc Co., Johnson Camp copper-zinc mine, Ariz., mining methods and practices.....	IC 7788	Cosgray No. 2 mine, Pa., coal, analyses.....	RI 5434
Correlation index, to aid in interpreting crude-oil analyses.....	TP 610	washing characteristics.....	RI 5434
Correll zinc mine, Pa., exploration.....	RI 4180	Cosmos Creek asbestos deposits, Alaska, investigation.....	RI 4414
Corrosion, boilers, causes.....	BWH	Coso mercury deposit, Calif., exploration by rotary-bucket drill rig, description.....	RI 4201
control.....	BWT	Coss mercury prospect, Nev., investigation.....	RI 5285
prevention.....	BWH; RI 2727	Cossatot River barite prospect, Ark., investigation.....	RI 4348
central heating systems, abatement.....	TP 236	Costs, accidents.....	RI 2535; IC 6166
control, steam heating systems, chemical treatment of boiler water, study.....	TP 714	coal mine.....	IC 6872, 6896
cracking plants, prevention.....	TP 551	metal mine.....	TP 514; IC 6713, 6861
damage to metal structures, reducing, by cathodic protection.....	IC 7827	mine.....	IC 6855
external, wall tubes, in steam generators, study.....	IC 7618	clay, grinding.....	IC 6913, 6921, 6929, 6962
firearms, under oil films, study.....	TP 188	mining.....	IC 6155, 6657, 6913, 6921, 6929, 6962
galvanic, titanium, factors, study.....	RI 4965	coal, mining.....	IC 6119, 6151, 6208, 6928
heating surfaces, air preheaters, study.....	RI 4996	copper-gold-silver ore, milling.....	IC 7058
iron, prevention.....	B 233; TP 15, 236	mining.....	B 356, 357, 390; IC 6413, 7058
materials, in air preheaters, tests, information.....	RI 5471	copper mine, open-pit, mining.....	IC 7929
metals, in acid mine water.....	B 555;	copper ore, milling.....	B 392;
TP 58; RI 3149; CIT 4, 6, 15		IC 6241, 6261, 6285, 6358, 6394, 6404, 6479, 6489, 6515, 6544, 6550, 6573, 6619.	
water containing dissolved gases, studies.....	IC 7643, 7659	mining.....	B 107,
oil- and gas-field equipment, prevention.....	B 233	298, 306, 356, 357, 390; IC 6145, 6149, 6167-6169, 6240, 6247, 6250, 6260, 6289, 6412, 6440, 6464, 6503, 6515, 6528, 6565, 6666, 6736, 6815, 7502.	
return-line, steam heating systems, control.....	BWT	copper-silver ore, mining.....	IC 6307
steam-condensate lines, heating systems, prevention, research.....	IC 7518, 7565, 7618, 7647, 7663, 7669	copper sulfide ore, milling.....	IC 6343
steel, by gases containing hydrogen sulfide.....	TP 560	crosscutting.....	IC 6825
prevention, electrolytic method.....	B 233;	crushing.....	IC 6405,
TP 15, 236		6446, 6531, 6553, 6615, 6744, 6920, 6967, 6971	
tank steel, by hydrogen sulfide gas, effect of oxygen.....	RI 3160	cut-and-fill stoping.....	B 390; IC 6503
tubing, gas-condensate wells, study.....	IC 7505	developing mines.....	B 356; IC 6681, 6707, 6735
Corrosion properties, chemical, titanium, determination, tests, results.....	RI 5423	dredging.....	IC 6421, 6582, 6626, 6659, 6696
titanium alloys, determination, tests, results.....	RI 5423	drift mining.....	B 357; IC 6612, 6825
galvanic, titanium, determination, tests, results.....	RI 5423	ferberite ore, mining.....	IC 6673
in organic acids, investigation.....	RI 5189	glass sand, milling.....	IC 6837
in inorganic solutions, study.....	RI 5201	mining.....	IC 6837
titanium alloys, determination tests, results.....	RI 5423	gold ore, milling.....	B 363,
zirconium, in inorganic solutions, study.....	RI 5201	IC 6408, 6411, 6476, 6508, 6541, 6612, 6742, 6824, 6900, 6901, 6905, 6914, 6945, 6947, 6985, 6987, 6990, 6991, 7012, 7015, 7024, 7039, 7096, 7111, 7123.	
titanium alloys, evaluation.....	RI 5299	mining.....	B 356,
titanium alloys and titanium, comparison.....	RI 5299	357, 363, 390; IC 6186, 6311, 6322, 6402, 6470, 6490, 6503, 6512, 6525, 6543, 6612, 6709, 6741, 6799, 6800, 6806, 6823, 6824, 6851, 6900, 6901, 6905, 6914, 6940, 6945, 6947, 6985, 6987, 6990, 6991, 7015, 7024, 7039, 7094, 7096, 7111, 7123, 7903.	
warning agents, for fuel gases.....	M 4	packing.....	IC 6898
Corrosion rate, metals, in hot sulfuric acid, tests, results, tabulation.....	RI 4996	trucking.....	IC 6898
Corrosion tests, accelerated, metals and alloys.....	CIT 4, 6	gold-silver ore, milling.....	IC 6319,
spot-welded titanium samples in red fuming nitric acid, results.....	IC 7711	6555, 6739, 6836, 6976, 7101, 7194	
Corundum, annual data.....	MR 1924-31; MY 1932-37	mining.....	IC 6543, 6880, 6976, 7101, 7194
bibliography.....	IC 7295	granite, quarrying.....	IC 6744
concentration tests.....	RI 4161	gravel, auriferous, dredging.....	IC 6659
defense aspects.....	IC 7168	dredging.....	IC 6421, 6582, 6626
deposits.....	B 556; IC 6471	grinding.....	IC 6885, 6887, 6889, 6913, 6921, 6929, 6962
exploration.....	RI 4039, 4050, 4052, 4113; IC 7607	gypsum, crushing.....	IC 6615, 6967, 6971
extraction from aluminum dross.....	RI 3874	mining.....	IC 6615, 6967, 6971
mining and milling.....	IC 7295	hematite, mining.....	B 239,
occurrence.....	IC 7295	356, 357, 390; IC 6138, 6179, 6180, 6348, 6369, 6380, 6390.	
outlook.....	B 556	iron ore, milling.....	IC 7807
production, world.....	B 556	mining.....	B 239,
uses.....	IC 7295	298, 356, 357, 390; IC 6254, 6361, 6369, 6390, 6397, 6503, 7807.	
Corundum-andalusite deposit, exploration.....	RI 3895, 4298	lead ore, milling.....	B 381,
Corundum Hill mine, N.C., investigation.....	RI 4042	TP 95; IC 6342, 6447, 6497, 6600, 6658, 6776, 7875.	
Corundum mines, investigation.....	RI 3855, 4042, 4309, 4310	mining.....	B 356,
Corundum property, exploration.....	RI 3895	357, 381, 390; TP 41, 95; IC 6113, 6159, 6160, 6170, 6174, 6232, 6776, 7875.	
		lead-silver-copper ore, milling.....	B 381; IC 6314

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Costs, lead-silver-gold ore, milling-----	B 381; IC 6320
lead-silver ore, milling-----	B 381; IC 6759
mining--	B 356, 357, 381, 390; IC 6327, 6360, 6407
lead-zinc-copper ore, milling-----	B 381; IC 6605
mining-----	IC 6377
lead-zinc-copper-silver ore, milling--	B 381; IC 6359
lead-zinc ore, milling-----	B 281;
IC 6430, 6492, 6574, 6590, 6758, 7077, 7428	
mining-----	B 356
357, 381, 390; IC 6113, 6121, 6159, 6328, 6371,	
6372, 6377, 6416, 6503, 6656, 7077, 7428, 7507,	
7524, 7560, 7774, 7780, 7823, 7828.	
lead-zinc-silver ore, milling-----	B 381; IC 6314, 6587
mining-----	B 356, 357, 381,
390; IC 6238, 6290, 6371, 6372, 6416, 7003, 7743	
lignite, mining-----	IC 7891
limestone, crushing-----	IC 6446, 6531, 6554
grinding-----	IC 6522, 6554
mining-----	IC 6446, 6795, 7793
quarrying-----	IC 6498,
6513, 6522, 6531, 6554, 6603, 6608, 6610	
lode gold, milling-----	IC 7015, 7039
mining-----	IC 7015, 7039
magnetite, mining-----	IC 6092
metal mines, accounting-----	B 372; TP 223
mica, mining-----	IC 6616
milling operations-----	B 363,
381, 392; IC 6236, 6241, 6261, 6280, 6285, 6314,	
6319, 6320, 6342, 6343, 6353, 6357-6359, 6364,	
6379, 6394, 6404, 6408, 6411, 6429, 6430, 6433,	
6447, 6460, 6467, 6476, 6479, 6488, 6489, 6492,	
6497, 6508, 6532, 6541, 6544, 6550, 6551, 6555,	
6573, 6574, 6587, 6590, 6600, 6604, 6605, 6612,	
6619, 6621, 6624, 6658, 6685, 6706, 6739, 6742,	
6758, 6759, 6836, 6858, 6900, 6914, 6937, 6945,	
6947, 6975, 6976, 6985, 6987, 6990, 6991, 7012,	
7015, 7024, 7039, 7053, 7073, 7077, 7084, 7096,	
7101, 7111, 7119, 7123, 7194, 7550, 7807, 7871,	
7875.	
mining operations-----	B 107,
356, 357, 363, 381, 390; IC 6107, 6113, 6119,	
6121, 6138, 6145, 6149-6152, 6159, 6180, 6167-	
6170, 6174, 6179, 6180, 6186, 6208, 6232, 6234,	
6237-6240, 6247, 6250, 6260, 6276, 6284, 6286,	
6289, 6290, 6294, 6307, 6311, 6322, 6327, 6343,	
6390, 6361, 6368-6371, 6377, 6380, 6384, 6390,	
6397, 6402, 6405, 6407, 6412, 6413, 6416, 6420,	
6421, 6440, 6446, 6448, 6462, 6464, 6470, 6490,	
6512-6515, 6525, 6526, 6537, 6543, 6565, 6580,	
6581, 6586, 6592, 6601, 6607, 6615, 6616, 6652,	
6656, 6657, 6661, 6662, 6666, 6673, 6676, 6692,	
6705, 6709, 6736, 6741, 6795, 6799, 6804, 6806,	
6815, 6823, 6824, 6851, 6853, 6880, 6900, 6910,	
6914, 6928, 6937, 6940, 6945, 6947, 6950, 6962,	
6963, 6967, 6971, 6976, 6978, 6985, 6987, 6990,	
6991, 7003, 7015, 7024, 7029, 7039, 7058, 7077,	
7084, 7094, 7096, 7101, 7111, 7119, 7123, 7152,	
7164, 7194, 7502, 7507, 7524, 7550, 7560, 7743,	
7766, 7774, 7780, 7793, 7801, 7803, 7807, 7811,	
7823, 7870, 7871, 7875, 7891, 7903, 7929.	
nonmetal industries, crushing of-----	IC 6405
oil, production-----	RI 2530
oil wells, accounting-----	B 158
ore mining, summary-----	IC 6785
pegmatites, milling-----	IC 7550
mining-----	IC 7550
pig iron, production, effect of silica-----	RI 2560
placer mines, small, mining-----	IC 6611
quarrying-----	RI 2911;
IC 6291, 6498, 6513, 6522, 6531, 6554, 6599,	
6603, 6608-6610, 6744, 6912, 6920.	
quicksilver ores, milling-----	IC 6429
mining-----	IC 6276, 6462, 6950
Rock Creek tunnel, driving-----	IC 7525
rock dusting, bituminous-coal mines-----	CIT 18
Costs, sand, dredging-----	IC 6421, 6582, 6626, 6696
mining-----	B 268;
IC 6420, 6537, 6580, 6581, 6592, 6607, 6652,	
6676, 6910.	
sandstone, quarrying-----	IC 6291
shaft sinking-----	B 357;
IC 6583, 6602, 6640, 6674, 6923, 7495, 7680	
shale, quarrying-----	IC 6496
silver ore, milling-----	IC 7119
mining-----	B 356,
357, 390; IC 6327, 6661, 6804, 6876, 7119	
stone, crushed, quarrying-----	IC 6609
stripping-----	B 390; IC 6503
stripping-----	B 298
sulfide ore, milling-----	IC 7073
mining-----	IC 6978
tantalaite ore, milling-----	IC 7084
mining-----	IC 7084
timbering, anthracite mines-----	RI 2546
trap rock, crushing-----	IC 6920
quarrying-----	IC 6920
tungsten ores, milling-----	B 187;
IC 6280, 6284, 6532, 6852	
mining-----	B 357, 390; IC 6284, 6852, 7854
uranium ore, mining-----	IC 7801, 7803, 7811
uranium-vanadium ore, mining-----	IC 7766
zinc ores, milling-----	B 381;
TP 95; RI 2314; IC 6353, 6370, 6379, 6776	
mining-----	B 356,
357, 381, 390; TP 41, 95, 154; IC 6113, 6121,	
6150, 6159, 6174, 6239, 6370, 6586, 6776.	
Costa Rica, cement industry, study-----	IC 7102, 7360
manganese, deposits-----	MS 10
minerals, production, annual data-----	MY 1949-51
mineral industry, review-----	MY 1944-47
mining laws, synopsis-----	IC 6296
petroleum laws-----	B 208
Costello Creek coal mine, Alaska, investiga-	
tion-----	RI 4360
Costilla County, Colo., iron ore, reconnais-	
sance-----	IC 7918
Cote & Pierron electric zinc furnace, descrip-	
tion-----	B 208
Coteau bed, N. Dak., lignite, hydrogenation,	
neutral oil from, characteristics-----	TP 646
Cotton Valley oil field, La., engineering re-	
port-----	TP 504
Cottonwood Canyon district, Utah, vanadium	
deposits, exploration-----	RI 3930
Cottrell precipitator, for smelter fume-----	B 84, 98
for sulfuric acid works-----	B 184
Cottrell-precipitator dusts, treatment-----	RI 2871
Cougar Spar fluorspar deposit, Utah, investiga-	
tion-----	RI 4820
Coughlin zinc mine area, Wis., exploration--	
RI 4047	
Council of National Defense, Advisory Com-	
mission, activities-----	MY 1940*
County Land tin deposits, Ala., analyses-----	RI 4704
Couplers, automatic, mine cars-----	IC 7245
Couplings, mine car, insulated, study-----	RI 2868
Cove Meadow copper deposit, Nev., investiga-	
tion-----	RI 4694
Covellite, dissolution-----	RI 3228
hydrometallurgy-----	RI 3228
leaching, chemistry-----	TP 487
oxidized copper in, determination-----	RI 3228
Covers, for explosion-proof compartments,	
design-----	IC 6267
in gas pipelines, effect on leakage-----	IC 6010
Cowles Bros., electric zinc furnace, descrip-	
tion-----	B 208
Cowley County, Kansas, oil fields, waterflood-	
ing-----	IC 7881

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Cowlitz clay deposit, Wash., clay, ceramic tests, results..... RI 4449
investigation..... RI 5157
Cox formula, for coefficient of friction..... M 6
Coxe gyratory screen, for coal, description... B 234
Coyote claims, Ariz., oxide manganese ore, beneficiation..... RI 5024
Coyote Creek antimony deposits, Utah, investigation..... RI 4470
Cracking hydrocarbons..... B 114
intercrystalline, boiler steel investigations... B 443;
RI 3599
factors..... RI 3427
prevention..... IC 6974
oils, by Bowie-Gavin process, description... TP 370
Cracking furnace, description..... TP 258
single-tube, for gasoline, construction..... TP 161
Cracking plants, annual surveys..... IC 6074,
6127, 6305, 6509, 6728, 6807, 6850, 6906, 6977,
7034, 7091, 7124, 7161, 7455, 7483, 7537, 7578,
7613, 7646, 7667, 7693, 7724, 7761, 7815, 7867,
7937.
corrosion, prevention..... TP 551
hazards..... TP 551
operating hazards..... TP 551
safety measures..... TP 551
Cracking processes, for producing gasoline, description..... TP 258
petroleum, early history..... IC 7172
Craig County, Okla., oil, production, by water flooding..... RI 4831
Crampton method, analyzing platinum ores... TP 270
Cranberry iron mine, N.C., drilling records... RI 4274
Cranberry magnetite deposit, N.C., investigation..... RI 4274
Tenn., investigation..... RI 4274
Cranberry mine, W. Va., coal, washing characteristics..... RI 5070
Cranberry No. 3 mine, W. Va., coal, properties... M 5
Cranston area, R.I., meta-anthracite deposits, investigation..... RI 4276
Crater wells, in natural-gas field, cause.... TP 535
Crawford County, Kans., Fair Oak oil field, waterflooding projects, survey..... RI 5317
McCune oil field, waterflooding projects, survey..... RI 5317
Southeast Walnut oil field, waterflooding project, description..... RI 5317
Walnut oil field, waterflooding projects, survey..... RI 5317
Crawshaw-Jones apparatus, for testing gases from detonation of explosives..... RI 3454
tests of sheathed permissible explosives with..... RI 3705
Crawshaw-Jones tests, ignition hazard, Armstrong blasting device, results..... RI 5223
Creech bed, Ky., coal, washing characteristics..... RI 5357
Creek-Aldridge prospect, British Columbia, Canada, coal, carbonizing properties... B 510
Creek County, Okla., oil, production, by water flooding..... RI 4832
Creekside No. 1 mine, Pa., coal, washing characteristics..... RI 4941
Creosote, as briquet binder..... B 24
for preserving timber..... B 57, 285
Crescent lead-zinc mine, Bunker Hill & Sullivan Mining & Concentrating Co., Idaho, underground shaft, deepening, methods and costs..... IC 7783
Wis., investigation..... RI 4317
Crescent pool, Okla., bottom-hole sample, study..... OKL 6
Cresol, flammability limits..... B 503
Cresson Consolidated Gold Mining & Milling Co., Colo., mining methods and costs..... B 363;
IC 6806
Crestmore limestone mine, Riverside Cement Co., Calif., block caving..... IC 7838
mining limestone, by caving method... IC 6795
Cretaceous oils, analyses..... TP 697
Crevasse Mountain district, Mont., mineral deposits, investigation..... IC 7546
Crimped paper, on cartridges, effect on detonation..... RI 3191
Crimpers, for detonators, use..... B 17, 57, 80
Cripple Creek district, Colo., pumping methods..... IC 6982
rock-strata gases..... B 105, 317; RI 2865
Critchfield manganese deposit, Pa., investigation..... RI 4326
Crocidolite, deposits..... IC 6790
Crockett mine, Ky., coal, washing characteristics..... RI 5357
Cromar-Morgan property, Utah, oxide manganese ores, concentration tests..... RI 4818
Cromwell oil field, Okla., petroleum engineering... OIK
Crooked Creek tunnel, Pa., excavation, method..... IC 7568
roof support, method..... IC 7568
Crosby steam-engine indicator, for measuring explosions, tests..... RI 3274
Crosby-type clips, for hoisting ropes..... TP 237
Cross cracking process, description..... IC 7172
Cross method, for testing coal grindability... RI 3301
Crossbrook mine, Va., coal, washing characteristics..... RI 5391
Crosscutting, costs, data, summary..... IC 6825
Crosshead, safety, for shaft buckets..... TP 276
Croton aldehyde, as warning agent, for fuel gases, tests..... M 4
flammability limits..... B 503
Crow Branch area, Wis., lead-zinc, exploration..... RI 4027
Crowe zinc-lead tract, Okla., churn drilling... RI 4415
Crowell fluorspar mine, Nev., exploration... RI 3954
Crowsnest coal area, British Columbia, Canada, A bed, coal, carbonizing properties... B 510
B bed, coal, carbonizing properties... B 510
Michel mine, coal, carbonizing properties... B 510
No. 1 East mine, coal, carbonizing properties... B 510
No. 3 bed, coal, carbonizing properties... B 510
No. 3 mine, coal, carbonizing properties... B 510
No. 4 bed, coal, carbonizing properties... B 510
No. 4 mine, coal, carbonizing properties... B 510
No. 9 bed, coal, carbonizing properties... B 510
No. 9 mine, coal, carbonizing properties... B 510
No. 10 bed, coal, carbonizing properties... B 510
Crucibles, air-cooled, for cold-mold arc melting, investigation..... RI 5443
design and construction..... RI 5443
graphite, brass melting, tests..... RI 2542
domestic, preparation..... B 112
use..... IC 6123
electric furnace..... B 67, 202
steel melting, tests..... RI 2512
production in induction furnace..... RI 2896
Crucible coal mine, Pa., coal, analyses..... RI 5434
washing characteristics..... RI 5434
highway subsidence over..... RI 3562
roof movement, studies..... RI 3452
timber, decay, studies..... RI 3544, 3710
Crucible flake, flotation of weathered graphite schists for..... ALA 49
Crucible Flake graphite property, Ala., description..... RI 4866
Crucible furnace, for brass melting..... B 73
for making ferroalloys..... B 77
Crude oil. See Oil, crude; Petroleum.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Crushers, gyratory, field tests.....	RI 3432	Cuba, nickel ore, metallurgical investigations, review.....	RI 5099
Crusher-board tests, explosives, methods.....	TP 186	Ocuja-San Juan claims, nickeliferous laterite ore, smelting tests.....	RI 5346
Crushing, efficiency.....	B 402	nickeliferous serpentine ore, smelting tests.....	RI 5346
energy.....	B 402	Ramona-Loma Muio claims, nickeliferous serpentine ore, smelting tests.....	RI 5346
explosive, of minerals, before ore dressing.....	RI 3118	reciprocal trade agreement.....	MY 1936
mechanism.....	B 402	Culm, analyses.....	B 27
practice, investigation.....	RI 2669R	anthracite, discussion.....	PTG 12
primary, field tests, summary.....	RI 3432	as mine filling.....	B 25, 60
investigations.....	RI 3377, 3380, 3390	as substitute for anthracite fuel, for house heating.....	IC 7280
Crushing equipment, description.....	RI 3377, 3380, 3390	Cumberland field, Ky., coal mines, bumps, causes.....	RI 3267
Crushing methods and costs, Blue Diamond Corp., Ltd., Nev.....	IC 6615	Va., coal mines, bumps, causes.....	RI 3267
Ebsary Gypsum Co., Inc., N.Y.....	IC 6971	Cumberland mine, Ky., coal, washing characteristics.....	RI 5357
Howes Cave plant, North American Cement Corp., N.Y.....	IC 6553	Cumberland Plateau, Tenn., coal, preparation characteristics, study.....	IC 7618
Monocacy trap-rock quarry, Dyer, John T., Quarry Co., Pa.....	IC 6405	washability study.....	RI 4596
Plainville trap-rock quarry, New Haven Trap Rock Co., Conn.....	IC 6920	Cumene, flammability limits.....	RI 4824
Tiffin limestone quarry, Thurber Earthern Products Co., Tex.....	IC 6531	ignition temperatures.....	RI 4824
Victor Plaster, Inc., N.Y., gypsum.....	IC 6967	Cummer process, for gypsum mills, description.....	TP 155
West Penn Cement Co., Pa., limestone mine.....	IC 6446	Cummins iron mine, N.J., rock, physical and petrographic properties.....	RI 4727
Weston & Booker Co., S.C., crushed-stone plant.....	IC 6744	Cummins magnetite mine, N.J., drilling records.....	RI 4225
Crushing practices, Apex limestone quarry, U.S. Lime Products Corp., Nev.....	IC 7517	Cumnock bed, N.C., coal, petrography.....	B 515
Sloan dolomite and limestone quarries, U.S. Lime Products Corp., Nev.....	IC 7517	Cup-spark method, porous, for analyzing titanium and titanium alloys.....	RI 5256
Cryogenic laboratory, Bureau of Mines, high-sensitivity galvanometers at, use.....	RI 3086	Cupferron, in analyses, use.....	B 186, 212
investigations.....	DAR 1923-36; MY 1932-37; IC 6745	Cupola, foundry, charging.....	B 3, 54
Cryolite, annual data.....	MR 1924-31; MY 1932-51, 1952 (vol. I)-1958 (vol. I)	gases, study.....	B 54
bibliography.....	B 244	temperatures, study.....	B 54
consumption.....	B 244	Cupola furnace, for brass melting.....	B 78
flotation.....	RI 3397	Cupola practice, electrolytic manganese, tests, results.....	RI 4861
mining and milling methods.....	B 244	Cupola tests, coal briquets.....	B 58
production.....	B 244	Cupric carbonate, thermodynamic properties.....	B 384
Cryophyllite, deposits, New England.....	IC 7232	Cupric chloride, vapor pressure.....	TP 360
Crystal Block No. 7 mine, W. Va., coal, washing characteristics.....	RI 5306	Cupric Mines Co. property, Utah, tungsten deposits, investigation.....	RI 4590
Crystal Falls-Iron River mining district, Mich., iron ore, investigation, geophysical methods.....	RI 4583	Cupric sulfide, thermodynamic properties.....	B 406
Crystal Mountain fluorite deposits, Mont., investigation.....	RI 4916	Cuprite, dissolution.....	RI 3228
Crystalline Flake mine, Ala., graphite deposit, description.....	RI 4366	in ferric sulfate solution.....	RI 2967
Crystolon, as electric-furnace lining.....	B 79	in sulfuric acid.....	RI 2967
Cuba, cement industry, studies.....	IC 7102, 7360	oxidized copper in, determination.....	RI 3228
copper mining, discussion.....	B 405	Cuprous chloride, vapor pressure.....	TP 360
electrolytic separation of nickel and cobalt, tests.....	RI 5394	Cuprous oxide, reduction, by carbon monoxide.....	RI 2926
Levisa district, nickel-cobalt ore, reserves.....	RI 5099	Cuprous sulfide, thermodynamic properties.....	B 406
manganese, deposits.....	MS 10	Curacao, minerals, production, annual data.....	MY 1949-51
manganese ore, costs.....	B 177	Curie's law, explanation.....	B 425
Minas de Matahambre, S.A., concentrator, milling methods and costs.....	IC 6544	Curl Creek oil field, Okla., Signal Oil & Gas Co. water flood 2, discussion.....	RI 5134
mining methods and costs.....	B 356, 357, 390; IC 6145	Curran-Knowles ovens, use, for coking Washington coals.....	RI 3717
minerals, production, annual data.....	MR 1924-31; MY 1932-47, 1949-51; MYA 1932-35	Current, air, carrying, Mine Safety Board decisions.....	IC 6091, 6126, 6139, 6732, 6946
mineral industry, review.....	MY 1947	electrical, stray, anthracite mines, study.....	RI 4637
mining laws, synopses.....	IC 6458	leakage, from shot-firing circuit, as cause of misfires.....	TP 471
Nicarao, nickel ores, analyses, differential thermal, in controlled atmospheres.....	RI 5496	Currie oil field, Tex., history and production.....	RI 3712
research, results.....	RI 5496	Curry County, Oreg., manganese deposits, investigation.....	RI 5369
nickel oxide, conversion to sponge nickel, cost data.....	RI 5465	Curtis Huff mine, Ky., coal, washing characteristics.....	RI 4998
nickel, resources.....	MS 11	Cush Creek mine, Pa., coal, washing characteristics.....	RI 4763
nickel-cobalt ores, exploration.....	RI 5099	Cushing oil field, Okla., drilling wells.....	TP 68
		engineering study.....	RI 5415
		geologic structure.....	GS 1
		relation to oil, gas, and water.....	GS 1

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Cushing oil field, Okla., production history, review..... RI 5415
water problems..... OKL 4
Custer County, Colo., iron ore, reconnaissance..... IC 7918
refractory clay, deposits..... RI 5553
Custer lignite mine, N. Dak., mining operations..... IC 7891
Custom mills, list..... IC 6842
Cut-and-fill stoping, costs..... B 390; IC 6503
Dayrock lead mine, Idaho, method..... IC 7649
discussion..... B 390; IC 6503, 6688
examples..... B 390; IC 6688
Cut Bank field, Mont., petroleum, analyses..... RI 3358
Cut holes, of drift rounds, chambering..... RI 2855
Cut-out, safety, for trolley wires, at loading chutes..... RI 2248
Cutler rule, oil-well spacing..... B 228; RI 3497
Cuttings, diamond drill, effect of lubricants..... RI 3793
Cuyuna range, Minn., hematite ore, concentratability..... RI 3229
iron formations, manganiferous, diamond-drill data..... RI 5450
iron ore, as source of ferrograde manganese..... RI 3582
ferromanganese from..... TP 393
manganiferous, concentratability..... RI 3045
leaching tests..... RI 3649
limonite ore, concentratability..... RI 3229
magnetic reconnaissance..... RI 3919
manganese deposits, investigation..... RI 5400
low-grade, leaching, with acid-ferrous sulfate..... RI 5442
Cussort property, Ga., brown-iron ores, exploration..... RI 4179
Cyanamide, annual data..... MY 1942
uses..... IC 6385
Cyanidation, gold ores..... RI 3275
laboratory testing for..... RI 3370
lime in, use..... IC 6423
gold-silver ore, application of activated carbon in, study..... RI 4819
application of ion-exchange resins in, results..... RI 4374
Cyanidation methods, manganese-silver ore..... B 226
recovering copper..... TP 494
recovering gold..... RI 3275
recovering zinc..... TP 494
Cyanides, alkali, in iron blast furnace, investigation..... TP 390
loss, in charcoal precipitation..... TP 378
with oxygen, in dissolving silver from ores, use..... RI 3064
Cyanide extraction, metals, tests..... TP 423, 494
Cyanide process, for recovering metals, dolomite in..... RI 2648
Cyanide solutions, acetylene precipitant..... RI 2346
electrodeposition of gold and silver from..... B 150
Cyanogen, flammability limits..... B 279R, 503
uses..... IC 6385
Cyanuric trioxide, detonating properties..... RI 2513
preparation..... RI 2513
strength..... RI 2513
Cycadophytes, in coal formations, study..... TP 631
Cycloalkane sulfides, in petroleum, properties..... RI 4060
Cycloalkanethiols, in petroleum, properties..... RI 4060
Cycloalkene sulfides, in petroleum, properties..... RI 4060
Cyclodehydrogenation, aromatic, definition..... TP 708
experiments, apparatus..... TP 708
review..... TP 708
Cyclohexanes, aniline points..... RI 3721
flammability limits..... B 279R, 503
Cyclohexanone, flammability limits..... B 503
Cyclohexene, flammability limits..... B 503
- R Revised.**
- Cyclohexylamine, for corrosion control, steam heating systems, tests..... TP 714; RI 3754
Cyclone drill, prospecting disseminated copper ore, use..... B 107
Cyclopentanes, aniline points..... RI 3721
Cyclopropane, explosive properties..... RI 3511
flammability limits..... B 279R, 503; 3537
Cyclopropane explosions, prevention, by dilution with inert gases..... RI 3511
Cyclopropane flames, extinction, by dilution with nitrogen..... RI 3490
Cyclopropane mixtures, as anesthetics, flammability..... TP 653
Cyclopropane-oxygen-helium mixtures, flammability limits..... RI 3537
Cylinder oil, Government specifications..... TP 298, 305, 323, 323A, 323B
Cyprus, asbestos, deposits..... MS 2
minerals, production, annual data..... MY 1949-51
mining laws, synopsis..... IC 6686
Cyrtolite, production..... IC 6456
Czechoslovakia, antimony, deposits..... MS 1
bauxite, deposits..... MS 3
coal, analyses..... B 512
coal fields, survey..... B 414
coal supply, review..... IC 7778
cobalt, deposits..... MS 5
crude oil, analyses, bibliography..... RI 4657
Fischer-Tropsch synthesis and related processes, patents..... B 544
iron and steel industry..... EP 19
lead, production, summarized data..... EP 5
resources..... MS 9
manganese iron-ore, deposits..... MS 10
minerals, production, annual data..... MR 1924-31; MY 1932-41, 1943, 1945, 1946, 1949-51; MYA 1932-35.
mining laws, synopsis..... IC 6103
patents, pressure hydrogenation, carbonaceous materials, liquid, index..... B 485 (pt. 3)
solid, index..... B 485 (pt. 3)
petroleum, properties..... B 401
radium industry..... IC 6312
tin, production, summarized data..... EP 13
zinc, production, summarized data..... EP 2
resources..... MS 12
- D**
- D bed, Ky., coal, washing characteristics..... RI 5140
coking coal, reserves, estimate..... RI 5037
Pa., coal, washing characteristics..... RI 4834, 4894, 4941
D bed mine, Ky., coal, washing characteristics..... RI 5140
"D" bed, Ky., coal, carbonizing properties..... RI 5257
Pa., coal, washing characteristics..... RI 4747
D. & P. mine, Ky., coal, washing characteristics..... RI 5135
D.J.B. No. 1 mine, Ky., coal, washing characteristics..... RI 4910
D.J.B. No. 3 mine, Ky., coal, washing characteristics..... RI 4910
Daggett Chief claims, Utah, oxide manganese ores, concentration tests..... RI 4389
Daggett Chief manganese deposit, Utah, investigation..... RI 4731
Dahl burners, for fuel oil, description..... B 214
Dahl Creek asbestos deposits, Alaska, investigation..... RI 4414
Daisy fluorite mine, Ill., investigation..... RI 4075
Dakota Collieries mine, N. Dak., lignite, grindability as function of moisture, tests, results..... RI 5167

Note.—Do not order from index; refer to text to see whether publication is still in stock.

Dakota Star mine, N. Dak., lignite, drying, Fleisner process, tests..... RI 5122
 gasifying in annular retort, data..... RI 5297
 grindability as function of moisture, tests, results..... RI 5167
 mining operations..... IC 7891
 Dallas, Tex., Bureau of Mines field office, work..... DAR 1921; IC 6060
 Dallas Washed and Screened Gravel Co., Clowdy plant, Tex., mining methods and costs..... IC 6581
 Dalton zinc deposit, Tenn., investigation..... RI 4497
 Daly mine, Calif., manganese ore, concentration test..... RI 5163
 Damps, coal mines, dangerous..... MC 14
 Damping capacity, alloys, bibliography..... RI 5441
 measurement..... RI 5441
 significance..... RI 5441
 metals, bibliography..... RI 5441
 determining, methods..... RI 4194
 measurement..... RI 5441
 significance..... RI 5441
 Damping-capacity measuring instrument, use in metallurgy..... TP 661
 Dan Rauch bauxite deposit, Pulaski County, Ark., drilling records..... RI 4256
 Danckwardt process, for aluminum chloride, description..... TP 321
 Danger symbol, universal..... TP 67
 Danger warnings, mine, stencils..... TP 244
 Dannemora magnetite district, N.Y., magnetic surveys..... RI 4002
 Dark-field counts, dust samples, determining size of smallest particles..... RI 4802
 procedure..... RI 4568, 4802
 Darr coal mine, Pa., disaster investigation..... B 28
 Dart method, for platinum in ores..... TP 270
 Davenport mine, N. Dak., lignite, grindability as function of moisture, tests, results..... RI 5167
 Davenport oil field, Okla., engineering report..... OBC 4
 David mine, Calif., chromite ore, concentration tests..... RI 5172
 Davidson mine, Ala., coal, flotation tests, results..... RI 5397
 washability study..... RI 5128
 washability tests..... RI 5397
 Davis bed, Md., coal, blending with Pittsburgh bed, Pa., coal, effect..... TP 511
 carbonizing properties..... TP 511; M 5
 Davis-Bronson oil field, Allen County, Kans., water-flooding projects, survey..... RI 5317
 Bourbon County, Kans., waterflooding projects, survey..... RI 5317
 Davis Deputy safety lamp, tests..... B 277
 Davis-Dunkirk Mines, Inc., Ariz., concentrator, equipment costs..... IC 6730
 Davis mine, Pa., coal, washing characteristics..... RI 4834
 Davisson, J. K., & Bro., Pa., dredging methods and costs..... IC 6582
 Davy lamp, abandonment, suggestions..... RI 2484
 development..... B 227; MC 12
 Davy Sewell bed, W. Va., coal, carbonizing properties..... B 496
 Dayrock lead mine, Idaho, cut-and-fill stoping, method..... IC 7649
 Dayton iron deposit, Nev., investigation..... RI 4561
 Dayton Malleable Iron Co., Ohio, air furnace practice, electrolytic manganese, tests, results..... RI 4861
 Dean bed, Ky., coal, washing characteristics..... RI 5357
 Dean prospect, Ala., graphite deposit, description..... RI 4366
 Deaner oil field, Okla., engineering report..... OBC 1
 Dearborn, Mich., magnesium pilot plant, construction and operation..... RI 3823
 Death Valley National Monument vicinity, Calif., oxide manganese ores, concentration tests..... RI 4599
 Decane, combustion data..... TP 320
 flammability limits..... B 279R, 503
 Decline, oil wells, curves..... B 177
 factors controlling..... B 194
 DeCoursey Mountain mercury deposits, Alaska, exploration..... RI 4065
 Decrepitation methods, for beneficiating spodumene, use..... RI 3386
 Dedusting, coal, by oil-treating process, explosion hazards..... RI 3388
 western Germany, practice..... IC 7389
 Deep River coal field, N.C., investigation..... B 515
 Deer Trail district, Stevens County, Wash., copper, mine production..... IC 7872
 gold, mine production..... IC 7872
 lead, mine production..... IC 7872
 silver, mine production..... IC 7872
 zinc, mine production..... IC 7872
 Defense, home insulation, need for nonmetals..... IC 7159, 7168, 7171, 7179
 value..... IC 7166
 national, Government activities..... MY 1940-41
 Defense Materials Procurement Agency, establishment..... MY 1951
 functions..... MY 1951, 1952 (vol. I), 1953 (vol. I)
 transfer to General Services Administration..... MY 1952 (vol. I)
 Defense Minerals Administration, abolishment..... DAR 1952
 establishment..... MY 1950; DAR 1951
 program..... MY 1951, 1952 (vol. I)
 Defense Minerals Exploration Administration, activities..... MY 1956 (vol. I), 1957 (vol. I)
 exploration assistance, mercury..... B 556
 mica..... B 556
 functions..... MY 1951, 1952 (vol. I)-1955 (vol. I)
 organization..... MY 1951
 Defense Mobilization, Office of, activities, result..... MY 1954 (vol. I), 1955 (vol. I)
 functions..... MY 1953 (vol. I)
 Defense Plant Corp., organization and duties..... MY 1942
 Defense Production Act, activities, result..... MY 1958 (vol. I)
 amendment..... MY 1951, 1952 (vol. I)
 renewal..... MY 1952 (vol. I)
 functions..... MY 1952 (vol. I)-1955 (vol. I)
 mineral programs, annual review..... MY 1956 (vol. I), 1957 (vol. I)
 provisions..... MY 1950
 renewal..... MY 1953 (vol. I)
 Defense Production Administration, termination..... MY 1953 (vol. I)
 transfer of functions to Office of Defense Mobilization..... MY 1953 (vol. I)
 Defense Solid Fuels Administration, establishment..... MY 1950
 Defense Supplies Corp., organization and duties..... MY 1942
 Defense tungsten mine, Nev., scheelite ore, treatment tests, results..... RI 5087
 Defense zinc property, Wis., exploration..... RI 3948
 De Graaf coal-ash fusion furnace, check determinations in..... RI 3008
 De Grasse area, Mich., iron ore, gravimetric and electrical resistivity surveys..... RI 4583
 Dehue coal mine, W. Va., anchorage tests, expansion-type roof bolts, results..... RI 5310
 coal, washing characteristics..... RI 5306
 Dehydration, centrifugal, to handle oil emulsions..... RI 2688

B Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Deichman oil field, Kans., Anderson-Prichard Oil Corp. Deichman project, discussion IC 7831
- De Laval furnace, for zinc, description B 208
- De Laval separators, for oil emulsions B 250
- Delaware, explosives, laws IC 7251
- production, annual data TP 69, 85, 107, 159, 175, 192, 231, 259, 291, 313, 340, 358, 380, 406, 426, 435, 467, 478, 509, 540, 558, 606, 627, 636, 647, 658, 665; RI 3257, 3285, 3317, 3350, 3414.
- storage inspections IC 7398
- kaolin, deposits TP 99
- minerals, production, annual data MR 1924-31; MY 1932-51, 1952 (vols. I, III)-1958 (vols. I, III); MYA 1932-35.
- mineral industry, annual review MY 1952 (vol. III)-1958 (vol. III)
- mineral pigments, resources B 370
- natural gas, statistics, 1949-50 IC 7644
- occupational diseases, compensatory provisions IC 7650
- ore-testing laboratories, list IC 7695
- Pennsylvania anthracite, shipments SFA 1-III, 2-III, 3-III
- petroleum laws B 206
- quarry accidents, annual data TP 46, 73, 92, 128, 165, 193, 353
- sandstones, occurrence B 124
- Worth Steel Co., basic open-hearth furnace practice, electrolytic manganese, tests, results RI 4861
- Delaware aqueduct, N.Y., roof bolting IC 7652
- Delaware-Childers oil field, Okla., Climax-Brundred Water Flood Division, Lowery flood, discussion RI 5134
- Delaware Consolidated Oil Co. Delaware District unit flood, discussion RI 5134
- oil sands, waterflooding, injection tests RI 4600
- Phillips, Dean & Glass Howerton & Grimmett flood, discussion RI 5134
- repressuring, results RI 3325
- secondary-recovery practices and oil reserves RI 4019
- Sinclair Oil & Gas Co. Tanner flood, discussion RI 5134
- Delaware-Consolidated Oil Co. Delaware flood, Okla., oil sands, waterflooding RI 4896
- Delaware River Aqueduct, N.Y., construction of tunnels, use of diesel locomotives RI 4032; IC 7406
- Delhi-Babb fluorite property, Ky., examination RI 4677
- fluorite, concentration tests RI 4370
- Delmont No. 10 mine, Pa., coal, washing characteristics RI 4923
- Del Monte, Calif., sand, beneficiation RI 3740
- Del Norte County, Calif., manganese deposits, investigation RI 5369
- Del Rio barite deposits, Tenn., investigation RI 4571
- Delta County, Colo., iron ore, reconnaissance IC 7918
- refractory clay, deposits RI 5553
- Del Valle field, Calif., oil, secondary recovery, by water injection RI 4887
- Delville process, for aluminum chloride manufacture TP 321
- Deming, N. Mex., Lake Valley mines, oxide manganese ore, concentration, methods RI 4186
- manganese-ore-purchasing depot, operation RI 5462
- Dempsey zinc-lead mine, Mo., investigation RI 4332
- Denmark, coal, analysis B 512
- supply and requirements, review IC 7778
- lignite, hydrogenation tests TP 654
- minerals, production, annual data MY 1949-51
- Denmark, mining laws IC 6631
- patents, Fischer-Tropsch synthesis and related processes B 544
- oil shale B 468, 574 (pt. 3)
- pressure hydrogenation, carbonaceous materials, liquid, index B 485 (pt. 3)
- solid, index B 485 (pt. 3)
- shale oil, list B 487
- Dennison Sewer Pipe Co., Ohio, clay mine, grinding methods and costs IC 6921
- Denny zinc-lead tract, Kans., churn drilling RI 4398
- Dense medium, coal-shale refuse as, cleaning coal, pilot-plant-performance tests RI 5212
- magnetite as, cleaning anthracite, in pilot plant, results RI 5308
- cleaning coal, pilot-plant-performance tests RI 5212
- viscosity, role, in coal cleaning RI 5354
- viscosity, measurement, methods RI 5354
- Densitometers, nonrecording, description RI 3638
- Density, bulk, of coal charge, byproduct coke ovens, control RI 3743
- oil, determination FOH
- sulfur compounds, in petroleum study RI 4060
- Dental-supplies industry, as consumer of silver EP 14
- Denver, Colo., Bureau of Mines pilot plant, tests, coal, results RI 4954
- lignite, results RI 4954
- drill cores, storage and cataloging by Bureau of Mines IC 7777
- Denver Basin manganese ores, Colo., beneficiation RI 4845
- Denver Fire Clay furnace, effect on fusibility of coal ash RI 3724
- Denver Region coal field, Colo., subbituminous coal, low-temperature distillation tests RI 3342
- Deoxidation, iron oxides, fluidized in hydrogen, laboratory study RI 4092
- with aluminum CIT 46
- with silicon CIT 36
- in open-hearth process CIT 38
- Dephosphorization, ferrophosphorus, in side-blown basic converter RI 5102
- phosphor iron, in side-blown basic converter RI 5102
- Derricks, oil, construction B 232
- safeguarding workmen B 272; TP 419
- oil-well pumping plants B 224
- quarry, precautions TP 111
- Derby No. 1 mine, Va., coal, washing characteristics RI 5391
- Desalting, petroleum, literature, review RI 3422
- Desclozite ores, beneficiation RI 3628
- metallurgical possibilities RI 2433
- milling tests RI 2433
- Desert lands, mining laws B 94
- Des Moines, Iowa, smoke-abatement ordinance B 49
- Desulfurization, coke CIT 7
- iron-manganese systems, effect of acid oxides RI 3240
- studies RI 3240
- Detectors, carbon dioxide, Sarco, description B 91
- Schmid, description B 91
- Simmance-Abady, description B 91
- carbon monoxide, colorimetric, description MC 33R
- iodine pentoxide TP 582; MC 33R; IC 6057
- pyrotannic acid TP 373; MC 33R; 34R; RI 2846; PHS 872
- gas, safety tests IC 7087
- methane, Burrell, approval RI 2367
- coal mine, evolution IC 6733

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Detectors, methane, description... MC 33R; RI 3359
 Liveing, description... IC 6733
 Martienssen, description... IC 6733
 tests... RI 2919
 M.S.A., description... RI 5056
 permissible, description... B 331
 lists... B 543; IC 7722
 tests... S 8C; RI 2919, 3008
 study... TP 357
 portable, approved by Bureau of Mines... RI 5056
 permissible, tests... S 8C
 Ralph, description... IC 6733
 sampling air in anthracite mines... IC 6874
 U.C.C., description... IC 6733
 mine gases... MC 33R
 petroleum vapors, Burrell... TP 352
 Detergents, use, in displacing petroleum from
 sand, tests, results... RI 5020
 in petroleum production... RI 5020
 Detergent solutions, for displacing petroleum
 from sand, studies, results... RI 5352
 Detonating compounds, analysis... B 219; TP 282
 Detonating fuses, metal mining, use... B 80
 tests... B 59
 Detonation, explosives... B 15, 48, 59,
 80; TP 145
 tests... TP 186, 294
 Detonation particles, in ignition of firedamp by
 explosives... TP 603
 Detonation rate, determining, apparatus... B 66
 Detonation wave, in explosions, features... B 56
 Detonators, analysis... B 17, 80, 219;
 TP 145, 162
 classes... TP 125
 commercial, structural features... RI 3696
 construction, determination... RI 3594
 delay action, in coal mines, use... IC 6147
 electric, ignition of gas by... RI 2383
 investigations... B 59, 66, 240; TP 125;
 RI 2558
 properties... B 17, 59, 80;
 TP 125; RI 3255
 structural features... RI 3696
 use... B 17, 48, 57,
 80; MC 7, 19
 examination... TP 282
 handling and storage... B 17, 75, 80, 137;
 MC 19, 27
 initiating efficiency tests... TP 677
 investigations... B 59
 low grade, dangers... RI 2226
 miniature-cartridge test... RI 4031;
 IC 7352, 7417
 for initiating efficiency... TP 677
 safe opening... RI 3594
 storage... IC 7307
 strength, determining by sand test... TP 125
 structure, study... IC 7272
 tests, methods... B 59, 66, 80;
 TP 125, 145; RI 2558
 use... B 17, 75, 80;
 MC 7, 19
 Detroit Steel Casting Co., Mich., acid electric
 furnace practice, electrolytic manga-
 nese, tests, results... RI 4861
 tests of electrolytic manganese in acid
 steel... RI 3830
 Detroit stoker, for steam-boiler furnaces... B 40
 Deuterium, flammability limits... B 279R, 503
 Development methods and costs, Ashley mine,
 Matachewan gold district, Ontario,
 Canda... IC 6707
 Central Patricia Mines, Ltd., Ontario,
 Canada... IC 6681
 review... IC 6693
- Devices, blasting, permissible, list... IC 7832
 electrical, use in metallurgy... TP 661
 Dew point, of gases under pressure, Bureau
 of Mines apparatus... RI 3399
 Dewey method, for determining platinum in
 ores... TP 270
 Diamonds, abrasive, properties... B 243; IC 6562
 trade data... IC 6562
 uses... B 243; IC 6562
 annual data... MY 1932-51; IC 7106
 for diamond drilling... B 243
 industrial, annual data... MY 1952
 (vol. I)-1958 (vol. I)
 defense aspects... IC 7168
 reserves... B 556
 technology... B 556
 production, world... B 556; MTN 46
 recovery operations... MTN 47
 resources... GS 3
 Diamond area, investigation... RI 4549
 Diamond drills, operation... B 243
 Diamond-drill cores, storage... IC 7394
 Diamond-drill holes, grouting... RI 4559
 surveying, with Wright bore-hole-surveying
 instrument... RI 4061
 Diamond drilling, discussion... RI 4041
 machinery, description... B 243
 methods, at copper mine... RI 2708; IC 6708
 at oil wells... B 243
 potash reserves, New Mexico... RI 3861
 to obtain ore samples... B 356
 Diamond-drilling bits, coolant, effect of lubri-
 cants... RI 3798
 Diamond-drilling blastholes, Anvil-Palms iron-
 ore mine, Mich., description... IC 7317
 Balmat zinc mine, N.Y., description... IC 7408
 Bell mine, Pa., description... IC 7429
 Bellefonte mine, Pa., description... IC 7438
 Eastern Magnetite mine A, description... IC 7398
 Eastern Magnetite mine B, description... IC 7401
 Eastern Magnetite mine C, description... IC 7433
 El Dorado Limestone Co. mine, Calif., de-
 scription... IC 7451
 Hornet mine, Calif., description... IC 7451
 Lake Superior district, iron-ore mines, de-
 scription... IC 7817
 Pine Creek tungsten mine, Calif., descrip-
 tion... IC 7451
 Soudan iron-ore mine, Minn., description... IC 7317
 Tennessee Copper Co. mines, Tenn., descrip-
 tion... IC 7452
 Diamond industry, effect of war... MY 1942, 1943
 problems... B 556
 Diamond Lease mine, Pa., coal, washing charac-
 teristics... RI 4815
 Diamond mine, Ala., graphite deposit, descrip-
 tion... RI 4366
 Diamond mining operations, industrial, Bak-
 wanga area, Belgian Congo... MTN 46
 Diamond-set bits, diamond orientation, drilling
 tests... RI 4800
 identifying hard vectors for setting pur-
 poses, method... RI 4853
 setting and casting procedure... RI 4800
 effect of core recovery, on cost of core drilling
 in gneiss... RI 4628
 on cost of core drilling in schist... RI 5291
 effect of diamond quality, on bit performance
 in cherty dolomite... RI 5408
 on bit performance in cherty limestone... RI 5406
 on bit performance in dolomite... RI 5385
 on bit performance in limestone... RI 5385
 on bit performance in quartzite... RI 5402
 on bit performance in sandstone... RI 5394
 on cost of core drilling in gneiss... RI 4628
 on cost of core drilling in schist... RI 5291

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.

- Diamond-set bits, effect of diamond size, on bit performance in cherty dolomite..... RI 5403
on bit performance in cherty limestone..... RI 5403
on bit performance in dolomite..... RI 5385
on bit performance in limestone..... RI 5385
on bit performance in quartzite..... RI 5402
on bit performance in sandstone..... RI 5384
on cost of core drilling in gneiss..... RI 4628
on cost of core drilling in schist..... RI 5291
performance, in cherty dolomite..... RI 5403
in cherty limestone..... RI 5403
in dolomite..... RI 5385
in limestone..... RI 5385
in quartzite..... RI 5402
in sandstone..... RI 5384
in schist, evaluation..... RI 5291
- Diamond-set bit crowns, effects of orienting high-grade drill bort in..... RI 5015
- Diamylene, action of olefin reagents..... RI 3356
- Diaphragms, for protecting equipment containing acetone-air mixtures..... TP 553
- Diaphragm roof, for oil storage tank, description..... RI 2984
- Diaphragm-type manometers, comparison with piston type..... RI 3274
- Diaspore, thermal analysis..... RI 3737
- Diatomaceous earth, analyses..... RI 2097
annual data..... MR 1924-31; MY 1932-46
bibliography..... B 266; RI 2718
composition..... RI 2097
deposits..... B 266; RI 2097
mining..... B 266; RI 2431
Pacific Northwest, data..... IC 7641
preparation..... RI 2097
properties..... RI 2718
uses..... B 14, 47, 51, 266; RI 2097, 2718
- Diatomite, annual data..... MR 1924-31; MY 1932-46, 1952 (vol. I)-1958 (vol. I)
as filter-aids, study..... B 460
as paint extender, preparation and use..... IC 7264
bibliography..... IC 6391
concentration, studies..... RI 3427, 3538
deposits..... B 556; IC 6391, 6474
in battery boxes..... RI 3078
industrial insulation with..... IC 7263
marketing..... IC 7202
mining..... IC 6391
properties..... B 460; IC 6391, 6474
technology..... B 556
test methods..... B 460
trade data..... IC 6391, 6474, 6687
uses..... B 556; RI 3078, 3473; IC 6391, 7474
- Diatomite industry, growth..... IC 6687
- Dichlorobenzene, flammability limits..... B 503
- Dichlorodifluoromethane, as refrigerant, toxicity..... RI 3013
extinction of butane flames by..... RI 3908
extinction of methane flames by..... RI 3042
extinction of propane flames by..... RI 3908
flammability limits..... B 279R
- Dichlorodifluoromethane-dimethyl ether-air mixtures, flammability limits, tests..... RI 4125
- Dichloroethylene, flammability limits..... B 279R, 503
- Dichlorotetrafluoroethane, as refrigerant, toxicity..... RI 3185
flammability limits..... B 279R
- Dickenson County, Va., coal, preparation characteristics..... RI 5405
- Dickenson method, of extracting silicates from pig iron..... B 308; CIT 37
- Dickite, thermal analyses..... RI 3737
- Didier coke ovens, slanting-type, operation..... IC 7462
- Dielectrics, solid, resistivity, effect of humidity..... IC 7296
- Dielectrics, solid, resistivity, measurement..... IC 7286
- Dielectric constant, electrostatic separation, air-ambient, study..... RI 4278
- Diesel engine, applications..... B 156; TP 9, 37
bibliography..... B 156; TP 37
combustion in..... RI 3508
details..... B 156
exhaust gases, aldehydes, determination, sampling methods..... RI 4531
characteristics..... RI 4643; IC 7046
composition..... RI 3508, 4381
effect, in mixtures of normal air and natural gas..... RI 3584
factors affecting..... RI 4381
conditioning, equipment for, development, Experimental Oil-Shale mine, Colo..... RI 4810
effect on quality of tunnel air..... RI 4032
effect of pressure, studies..... IC 7352
effect of sulfur content of fuel..... RI 3713
effect on fuel injection..... RI 3700
eliminating odor from..... RI 4381
protective devices for treating..... IC 7406
removal of aldehydes..... RI 4381
studies..... IC 7446
effect, in mixtures of normal air and natural gas..... RI 3584
factors affecting..... RI 4381
fuels..... B 156; TP 9, 37, 298, 303, 323, 323A, 323B
combustion performance tests..... IC 7446
hydrocarbons in, ignition qualities..... IC 7474
history..... IC 7406
ignition hazard..... RI 4381
in mines, use..... IC 7322
manufacture..... B 156
operation, in combustible gases, hazards..... RI 3584
in gassy coal mines..... RI 3527
in tunnels..... IC 7222
underground..... RI 3584
effect of adding exhaust gas to intake air..... RI 3541
hazards..... RI 3490, 3537, 3584, 3602, 3669, 3745, 4381
investigation..... RI 4031
safety, research..... RI 3383
studies..... RI 3508, 3700, 3713
performance characteristics..... RI 4287
principle..... IC 7406
underground, safe operation..... RI 4381
use, Bureau of Mines work, review..... RI 4381
use, in tunnel construction on Delaware River Aqueduct..... IC 7406
studies..... IC 7518, 7565, 7618, 7647
- Diesel-engine-driven equipment, permissible, lists..... B 543; IC 7722
- Diesel freight locomotive, in railway tunnel, use..... RI 3887
- Diesel fuel, annual surveys..... RI 4746, 4830, 4935, 5008, 5084; IC 7737, 7776
composition, studies..... IC 7551, 7616, 7643
- Diesel locomotives, in European coal mines, use..... RI 3320
in mines, use..... IC 7241
mine, effects of operation on quality of mine atmosphere, tests..... RI 4287
permissible, tests..... S 22, 22 (Amend.)
underground haulage, determining composition of exhaust gases, tests..... RI 4287
underground use, recommendations..... S 22
operation, in European underground mines..... IC 7378, 7406
in United States underground mines..... IC 7406
underground, exhaust gas, effect of scrubbing..... IC 7417

R Revised.

Note.—Do not order from index; refer to text to see whether publication is still in stock.