

CONTENTS

PAPERS

No.		PAGE
1131	A REVIEW OF CHICAGO PAVING PRACTICE.	
	By P. E. Green	1
	Discussion:	
	By W. W. Crosby	34
	E. H. THOMES	35
	RICHARD LAMB	43
	WILLIAM W. MARR	48
	NELSON P. LEWIS	53
	P. E. GREEN	55
1132	THE TRACTION OF FREIGHT TRAINS AT DIFFERENT SPEEDS.	
	By Clinton S. Bissell	58
	Discussion:	
	By A. C. DENNIS	68
	CLINTON S. BISSELL	68
1133	THE USE AND CARE OF THE CURRENT METER, AS PRACTICED BY THE UNITED STATES GEOLOGICAL SURVEY.	
	By John C. Hoyt	70
	Discussion:	
	By ARTHUR H. DIAMANT	106
	E. C. MURPHY	107
	H. K. BARROWS	108
	C. E. GRUNSKY	110
	E. KUICHLING	126
	GERARD H. MATTHES	128
	D. G. THOMAS	129
	WALTER PEARL	130
	C. M. ALLEN	130
	JOHN C. HOYT	132
1134	THE PURIFICATION OF THE WATER SUPPLY OF STEELTON, PENNSYLVANIA.	
	By James H. Fuertes	135
	Discussion:	
	By H. V. HINCKLEY	199
	WILLIAM R. COPELAND	199
	JAMES E. LITTLE	201
	SAMUEL RIDEAL	206
	GAVIN N. HOUSTON	207
	D. G. THOMAS	208
	JOSEPH A. SARGENT	209
	GEORGE C. WHIPPLE	210
	MORRIS KNOWLES	211
	GEORGE W. FULLER	213
	J. M. DIVEN	214
	JAMES H. FUERTES	216

IV

No.		PAGE
1135	THE REDEMPTION OF THE GREAT VALLEY OF CALIFORNIA.	
	By A. D. Foote.....	229
	Discussion:	
	By WILLIAM W. HARTS.....	246
	H. H. WADSWORTH.....	251
	ERLE L. VEUVE.....	256
	FREDERICK HALL FOWLER.....	257
	GEORGE L. DILLMAN.....	259
	C. E. GRUNSKY.....	263
	A. T. PARSONS.....	268
	D. C. HENNY.....	269
	A. D. FOOTE.....	272
1136	THE OUTLET CONTROL OF LITTLE BEAR VALLEY RESERVOIR.	
	By F. E. Trask.....	280
1137	THE REINFORCED CONCRETE WHARF OF THE UNITED FRUIT COMPANY AT BOCAS DEL TORO, PANAMA.	
	By T. Howard Barnes.....	287
	Discussion:	
	By JOHN HAWKESWORTH.....	303
	JOHN B. CAMERON.....	303
	T. HOWARD BARNES.....	304
1138	CHARACTERISTICS OF MODERN HYDRAULIC TURBINES.	
	By Chester W. Larner.....	306
	Discussion:	
	By LEWIS F. MOODY.....	347
	JOHN C. PARKER.....	352
	C. M. ALLEN.....	354
	E. KUICHLING.....	355
	DANIEL W. MEAD.....	357
	S. J. ZOWSKI.....	369
	CHESTER W. LARNER.....	372
1139	RIVER PROTECTION WORK ON THE KANSAS CITY SOUTHERN RAILWAY, NEAR BRADEN, OKLA.	
	By J. A. Lahmer.....	387
	Discussion :	
	By CHARLES H. MILLER.....	395
	J. A. LAHMER.....	399
1140	PROGRESS REPORT OF SPECIAL COMMITTEE ON STEEL COLUMNS AND STRUTS.....	401
	Discussion :	
	By THOMAS H. JOHNSON.....	427
1141	PROGRESS REPORT OF SPECIAL COMMITTEE ON BITUMINOUS MATERIALS FOR ROAD CONSTRUCTION.....	429
1142	PROGRESS REPORT OF SPECIAL COMMITTEE ON CONCRETE AND REINFORCED CONCRETE.....	431
	Discussion:	
	By WILBUR J. WATSON.....	467
	JOHN STEPHEN SEWELL.....	469
	CLARENCE W. NOBLE.....	473
	S. BENT RUSSELL.....	477
	J. R. WORCESTER.....	478
	W. J. DOUGLAS.....	481
	C. A. P. TURNER.....	491